

APPENDIX D

AIR POLLUTANT EMISSIONS ASSESSMENT



September 18, 2017

Mr. Ramon Gonzales
Project & Business Development Coordinator
Z Global Inc.
750 West Main Street
El Centro, CA 92243

Re: Air Pollutant Emission Assessment, Seville 4 Solar Project Construction and Operations,
Imperial County, California

Dear Mr. Gonzales:

Environmental Management Associates, Inc. (EMA) has prepared this assessment of the emissions of the following seven air pollutants from the construction and operation of the Seville 4 Solar Project (Project), Imperial County, California: criteria air pollutants particulate matter smaller than 10 microns in aerodynamic diameter (PM_{10}), particulate matter smaller than 2.5 microns in aerodynamic diameter ($PM_{2.5}$), carbon monoxide (CO), nitrogen oxides (NO_x) and sulfur dioxide (SO_2); and criteria air pollutant precursor reactive organic gases (ROGs); as well as greenhouse gases (GHG), such as carbon dioxide (CO_2) and methane (CH_4).

The Imperial County Air Pollution Control District “CEQA Air Quality Handbook” (November 2007) provides guidance to assist Imperial County CEQA Lead Agencies in making a determination on the type of environmental document to prepare.

The Handbook (page 8) states that “Table 1 (of the Handbook) provides general guidelines for determining the significance of impacts and the recommended type of environmental analysis required based on the total emissions that are expected from the operations phase of a project.” Table 1 presents these “Thresholds of Significance for Project Operations” from Table 1 of the ICAPCD CEQA Handbook.

Table 1: ICAPCD “Thresholds of Significance for Project Operations”

Air Pollutant	ROG	NO_x	CO	SO_2	PM_{10}
Threshold (<lbs/day)	55.00	55.00	550.00	150.00	150.00

The ICAPCD operations activities table does not present “significance thresholds” for $PM_{2.5}$ or GHG.



Mr. Ramon Gonzales

September 18, 2017

Page 2

Table 4 of the Handbook (“Thresholds of Significance for Construction Activities”) “is intended to serve as a guide for project developers and interested parties in determining the recommended type of mitigation measures.” (page 19). Table 2 provides the “Thresholds of Significance for Construction Activities” listed in Table 4 of the Handbook.

Table 2: ICAPCD “Thresholds of Significance for Construction Activities”

Air Pollutant	ROG	NO _x	CO	PM ₁₀
Threshold (<lbs/day)	75.00	100.00	550.00	150.00

The ICAPCD construction activities table does not present “significance thresholds” for PM_{2.5}, SO₂ or GHG.

To conduct this analysis, EMA utilized information from the Seville 4 CalEEMod Supplemental Project Description prepared by EMA with information provided by Titan Solar II LLC (Titan) (provided as Attachment A to this letter report).

Air pollutant emissions for the Project operations and construction activities were estimated using the California Emission Estimator Model (CalEEMod) (version 2016.3.1). CalEEMod is a computer program developed by ENVIRON International Corporation in collaboration with the South Coast Air Quality Management District (SCAQMD) and other California Air Districts that can be used to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of land use projects. The model quantifies direct emissions from construction and operations (including vehicle use and travel), as well as indirect emissions, such as GHG emissions from energy use. Mitigation measures can also be specified and their emission reductions calculated.

Unpaved private industrial road fugitive dust air pollutant emissions were calculated using the U.S. Environmental Protection Agency’s (USEPA’s) “AP-42, Compilation of Air Pollutant Emission Factors.” AP-42 has been published since 1972 as the primary compilation of EPA’s air pollutant emission factor information. It contains emission factors and process information for more than 200 air pollution source categories. The emission factors have been developed and compiled from source test data, material balance studies, and engineering estimates. The latest emissions factors are available from the USEPA’s website.

The Project would consist of the construction, operation and reclamation of a nominal 20-megawatt alternating current (MW_{AC}) solar photovoltaic (PV) energy generation facility. The Project would be built on either 146 acres (fixed-frame array) or 174 acres (horizontal single axis tracker [“HSAT”] array) of land in west-central Imperial County, California.

Project construction would consist of different activities which would be undertaken in phases, through to the operation of the Project. Construction of the project is expected to consist of the following eight activities (CalEEMod “phases”): access road (all-weather) construction; grading/fencing (including retention basin grading); racking installation; solar panel installation; system wiring and trenching; inverter installation; gentile power line construction; and substation and switch station construction. Some of the eight activities are expected to overlap another construction activity. Construction of the Project is estimated to take approximately 6 months.

The schedule presented in Table 3 includes the likely phasing of the various construction activities, whether fixed-frame or HSAT array. As shown in Table 3, operations would commence once construction is complete.

Table 3: Anticipated Construction and Operation Schedule

	Month 1		Month 2		Month 3		Month 4		Month 5		Month 6															
	Week #		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Access Road Construc.	X	X																								
Grading/Fencing			X	X	X																					
Racking Install.					X	X	X	X	X	X	X	X	X	X	X	X	X									
GenTie Power Line Construc.											X	X	X	X												
Substation Construc.											X	X	X	X	X	X	X	X	X	X						
Solar Panel Install.											X	X	X	X	X	X	X	X	X	X	X	X				
System Wiring & Trenching															X	X	X	X	X	X	X	X	X			
Inverter Install.																			X	X	X	X	X	X		
Operation																										X

Each construction and operation activity has the potential to produce air pollutant emissions which vary in both the specific type and quantity emitted. EMA has calculated the daily air pollutant emissions from the Project's eight construction phases and Project's operations in one CalEEMod model and twelve unpaved (private) industrial road calculations using AP-42 emission factors.

Table 4, Table 5, Table 6 and Table 7 outline the eight phases the CalEEMod model and twelve AP-42 emission factors used to calculate the daily air pollutant emissions from the Project's eight construction activities. Table 8 outlines the single phase the CalEEMod model used to calculate the daily air pollutant emissions from the Project operations. Table 9 outlines the single phase the CalEEMod model, and the one AP-42 emission factor, used to calculate the daily air pollutant emissions from the Project's fixed frame construction activities that differ from the HSAT array. Table 9 also outlines the single phase the CalEEMod model used to calculate the daily air pollutant emissions from the operation of the fixed-frame array option. These six tables also identify the Project construction and operation activities' air pollutant sources, the type of air pollutant emitted from each source, type of model used to calculate emissions, and the Attachment to this letter report in which the input and output files for each specific model are located. The CalEEMod input and output files for each of the eight HSAT array construction phases (and the fixed-frame grading option) are presented in Attachment B. The CalEEMod input and output files for the HSAT array operation phase (and the fixed-frame operation option) are also presented in Attachment B. The AP-42 calculations are presented in Attachment C

Table 4: CalEEMod Air Pollutant Emissions Calculation Models – Construction Activities

Project Phase(s)	Access Road Construction (All-Weather)					Grading/Fencing					
Air Pollutant Source	Onsite Traffic	Grading	On-Site Equip.	Off-Site Traffic		Onsite Traffic	Grading	On-Site Equip.	Off-Site Traffic		
Air Pollutant Emissions	Fugitive Dust	Fugitive Dust	Combust. Emissions	Fugitive Dust	Combust. Emissions	Fugitive Dust	Fugitive Dust	Combust. Emissions	Fugitive Dust	Combust Emissions	
Model Using	AP-42	CalEEMod (V04)				AP-42	CalEEMod (V04)				
Attachment	Attach. C	Attachment B				Attach. C	Attachment B				

Table 5: CalEEMod Air Pollutant Emissions Calculation Models – Construction Activities (continued)

Project Phase(s)	Racking Installation				Solar Panel Installation				
Air Pollutant Source	Onsite Traffic	On-Site Equipment	Off-Site Traffic		Onsite Traffic	On-Site Equipment	Off-Site Traffic		
Air Pollutant Emissions	Fugitive Dust	Combustion Emissions	Fugitive Dust	Combustion Emissions	Fugitive Dust	Combustion Emissions	Fugitive Dust	Combustion Emissions	
Model Using	AP-42	CalEEMod (V04)				AP-42	CalEEMod (V04)		
Attachment	Attach. C	Attachment B				Attach. C	Attachment B		

Table 6: CalEEMod Air Pollutant Emissions Calculation Models – Construction Activities (continued)

Project Phase(s)	System Wiring & Trenching				Inverter Installation				
Air Pollutant Source	Onsite Traffic	On-Site Equipment	Off-Site Traffic		Onsite Traffic	On-Site Equipment	Off-Site Traffic		
Air Pollutant Emissions	Fugitive Dust	Combustion Emissions	Fugitive Dust	Combustion Emissions	Fugitive Dust	Combustion Emissions	Fugitive Dust	Combustion Emissions	
Model Using	AP-42	CalEEMod (V04)				AP-42	CalEEMod (V04)		
Attachment	Attach. C	Attachment B				Attach. C	Attachment B		

Table 7: CalEEMod Air Pollutant Emissions Calculation Models – Construction Activities (continued)

Project Phase(s)	GenTie Power Line Construction				Substation & Switch Station Construction				
Air Pollutant Source	Onsite Traffic	On-Site Equipment	Off-Site Traffic		Onsite Traffic	On-Site Equipment	Off-Site Traffic		
Air Pollutant Emissions	Fugitive Dust	Combustion Emissions	Fugitive Dust	Combustion Emissions	Fugitive Dust	Combustion Emissions	Fugitive Dust	Combustion Emissions	
Model Using	AP-42	CalEEMod (V04)				AP-42	CalEEMod (V04)		
Attachment	Attach. C	Attachment B				Attach. C	Attachment B		

Table 8: CalEEMod Air Pollutant Emissions Calculation Models – Operation Activities

Project Phase(s)	Operations			
	Off-Site Traffic		Electrical	Water Use
Air Pollutant Source	Fugitive Dust	Combustion Emissions	GHG Emissions	GHG Emissions
Model Using	CalEEMod			
Attachment	Attachment B			

Table 9: CalEEMod Air Pollutant Emissions Calculation Models – Fixed Frame Activities

Project Phase(s)	Grading/Fencing					Operations			
	Onsite Traffic	Grading	On-Site Equip.	Off-Site Traffic		Off-Site Traffic		Electrical	Water Use
Air Pollutant Source	Fugitive Dust	Fugitive Dust	Combust. Emissions	Fugitive Dust	Combust. Emissions	Combust. Emissions	GHG Emissions	Fugitive Dust	GHG Emissions
Model Using	AP-42	CalEEMod (V04 FF)				CalEEMod (V04 FF)			
Attach.	Attach. C	Attachment B				Attachment B			

In addition to the CalEEMod calculations and results, Attachments B also contains a “User Entered Comments and Non-Default Data” section which both identifies non-default inputs and explains how CalEEMod is used to calculate emissions for the current project. When CalEEMod model defaults were retained and no further explanation was necessary, no “comments” were recorded.

Although the CalEEMod model is capable of calculating air pollutant emissions across many of these construction activities for a number of different projects, its default project types do not include a “solar photovoltaic farm” project. Therefore, the “user defined industrial” land use category was selected as a surrogate. Where applicable, CalEEMod defaults were retained as the model inputs. However, CalEEMod defaults were replaced with project-specific information where available (such as the number of worker-commute and truck traffic, and the percentage of off-site roads to be traveled by off-site traffic which would be paved and unpaved). Defaults were also replaced if applicable project information was available in the CalEEMod Supplemental Project Description using information provided by Titan. Examples of this latter information include the mix of construction equipment expected to be used.

To reduce fugitive dust Seville 4 would water the all-weather private road at least three times per day and limit speed on the all-weather private road to 25 mph. Further, actively disturbed areas on the Project site would also be watered at least three times a day as necessary to reduce fugitive dust emissions. The CalEEMod models with grading assumed on-site watering three times daily during the grading activities.

Attachment B contains the CalEEMod-generated reports of the model outputs for each activity. All of the output reports contain calculated air pollution emissions for both “unmitigated” and “mitigated” activities. “Unmitigated” emissions are those calculated by CalEEMod when none of the air pollutant mitigation measures contained within the CalEEMod program are selected. “Mitigated” emissions are those calculated by CalEEMod after the application of the air

pollutant mitigation measures described above which are contained within, and can be calculated by, CalEEMod.

Attachment B also contains the CalEEMod-generated report of the model outputs for both the HSAT and fixed-frame array operations – one for each array option for the summer months (Attachment B-1 and Attachment B-2), for the winter months (Attachment B-3 and Attachment B-4), and for the annual (or phase) time period (Attachments B-5 and Attachment B-6). The CalEEMod “mitigation report” is provided as Attachment B-7 and Attachment B-8.

The traffic driving to the Project site will travel on paved public roads and a short distance of unpaved private road. Due to the simplicity of the CalEEMod model, the emissions from the paved public roads were calculated using CalEEMod, but emissions from the unpaved private road were calculated outside of CalEEMod using AP-42. These calculations are provided in Attachment C.

Attachment D contains tables summarizing the specific daily (and annual for GHG) air pollutant emissions calculated for each construction phase and the operation phase of the HSAT and fixed-frame arrays, providing the winter and summer unmitigated and mitigated daily air pollution emissions. In addition, the unpaved private road emissions calculated in Attachment C have been added.

In order to determine the daily project-wide construction air pollutant emissions, the daily air pollutant emissions presented in Attachment D must be summed across each construction activity which would be occurring at the same time. Table 3 identifies the Project construction activities and how they are expected to overlap in time, based on the information presented in the Supplemental Project Description. Attachment E presents tables providing the winter and summer unmitigated and mitigated daily air pollution emissions (from Attachment D) summed by applicable construction activities across the eight time periods outlined in Table 3 for the HSAT and fixed-frame array options.

Attachment E compares, for both the HSAT and fixed-frame array options, the daily construction activities air pollution emissions summed by activities across all applicable time periods against the daily construction activities emission thresholds listed in Table 2. Attachment E also compares, for both the HSAT and fixed-frame array options, the daily operations air pollution emissions against the daily operations emission thresholds listed in Table 1. Attachment E shows that the mitigated daily emissions (both winter and summer) of NO_x, SO₂, CO and ROG during construction, and operation, of either the HSAT and fixed-frame array options of the Seville 4 Solar Project were below the respective construction and operation thresholds for the air pollutants. Attachment E also shows that the mitigated daily emissions (both winter and summer) of PM₁₀ during construction, weeks 1-2 and 21-23, and operation, of either the HSAT or the fixed-frame array options of the Seville 4 Solar Project were below the respective construction and operation thresholds for PM₁₀. Finally, Attachment E shows that the mitigated daily emissions (both winter and summer) of PM₁₀ during construction weeks 3-20 of either the HSAT or the fixed-frame array options of the Seville 4 Solar Project were above the respective construction thresholds for PM₁₀, reflecting the greater level of traffic on the private, all-weather road.

Mr. Ramon Gonzales

September 18, 2017

Page 7

Please do not hesitate to contact us if you have any questions or require any additional information. EMA appreciates this opportunity to be of service to Titan.

Sincerely:

ENVIRONMENTAL MANAGEMENT ASSOCIATES, INC.

A handwritten signature in black ink, appearing to read "Dwight L. Carey". The signature is fluid and cursive, with a large, stylized 'D' at the beginning.

Dwight L. Carey, D.Env.

Principal

Attachments:

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ATTACHMENT A

**SEVILLE 4 SOLAR PROJECT
CALEEMOD SUPPLEMENTAL PROJECT DESCRIPTION**

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SEVILLE 4 SOLAR PROJECT
SUPPLEMENTAL PROJECT DESCRIPTION FOR CALEEMOD ASSESSMENT

JULY 2017

Titan Solar II LLC (Titan) is proposing to develop the Seville 4 Solar Project (Project), a nominal 20-megawatt alternating current (MW_{AC}) solar photovoltaic (PV) energy generation facility located on up to approximately 174 acres of land in west-central Imperial County, California. The Project would consist of the construction, operation and reclamation of a solar energy project on portions of the Solana Energy Farms I, LLC property over which Titan Solar II, LLC has acquired an option to purchase. The Project consists of the solar generation facility and associated 34.5-kilovolt (kV) transmission line (gen-tie), Project substation and access road, all on private land. The proposed Project substation would increase the voltage to 92 kV, then deliver the generated power to the existing Imperial Irrigation District (IID) switch yard and connected 92 kV transmission line. This Project Description has been prepared for use in estimating the air pollutant emissions during construction and operation.

The Project would be built on a portion of Lot 8 of Tract Map No. 00988. Two options are being considered for development. The fixed-frame PV array option would disturb approximately 146 acres of land, while the horizontal single-axis tracking (HSAT) PV array option would disturb approximately 174 acres of land. The associated gen-tie line, Project substation and access road would disturb approximately an additional seven acres, regardless of the option selected. Approximately 60 acres of the lands to be disturbed by the PV construction for either option have historically been farmed, although this agricultural use appears to be no more recent than 2008.

Access to the Project site would be via State Highway 78 (a paved state highway). Approximately 3,000 feet of new, private, all-weather access road would be constructed to extend by 0.6 miles the 2.1 miles of private, all-weather road from State Highway 78 to the Project. No unpaved public roads would be traveled by traffic accessing the Project site.

Construction of either the fixed-frame PV array or the HSAT PV array is estimated to take approximately 6 months. The schedule presented in Table 1 includes the likely phasing of the various construction activities for either project. Construction is expected to commence on April 1, 2018, or when all required permits are acquired.

Table 1 – Anticipated Construction Schedule

	Month 1					Month 2				Month 3				Month 4				Month 5				Month 6				
	Week #																									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
Access Road Construct.	X	X																								
Grading/ Fencing			X	X	X																					
Racking Installation					X	X	X	X	X	X	X	X	X	X	X											
GenTie Power Line Construc.										X	X	X	X													
Substation Construc.										X	X	X	X	X	X	X	X									
Solar Panel Installation										X	X	X	X	X	X	X	X	X	X	X						
System Wiring & Trenching														X	X	X	X	X	X	X						
Inverter Install. Operation																				X	X	X	X	X	X	X

Construction of the Project would commence with building of the approximately 3,000 feet of private, all-weather access road, which would be constructed to extend 2.1 miles of private, all-weather road from State Highway 78 to the Project site (see Table 2). This new, 24-foot wide access road is expected to require light site preparation, grading, and compacting. These access road construction activities are expected to require two weeks to complete. These grading activities are expected to occur over approximately 1.65 acres; the total cumulative acreage disturbed from grading is approximately ten acres (approximately six passes over the 1.65 acre area). An estimated 12 worker trips and 12 haul truck trips per day traveling an average of approximately 2.4 miles (2.1 miles plus one-half of 0.6 miles) of all-weather private road are expected daily traveling to the work site. The equipment expected to be used during the construction of the new segment of access road is provided in Table 2.

Table 2– Anticipated Access Road Construction Equipment

Equipment Type	Amount	Daily Usage (Hours)	Horsepower
Graders	1	8	187
Water Trucks (Off-Highway Trucks)	1	8	402
Rollers	1	6	80

All traffic to the Project site during each additional construction phase will travel the approximately 2.7 miles of all-weather private road. To reduce fugitive dust Seville 4 would water the all-weather private road at least three times per day and limit speed on the all-weather private road to 25 mph. Further, actively disturbed areas on the Project site would be watered at least three times a day as necessary to reduce fugitive dust emissions.

Grading activities (including retention basin grading) for the HSAT array area are expected to total approximately three passes over the 174-acre Project site, or a total of approximately 522 acres of grading. Grading activities for the fixed frame array area are expected to total approximately three passes over the 146-acre Project site, or a total of approximately 438 acres of grading. Fence installation is also anticipated to occur during this phase. The grading phase with fence installation is expected to require approximately three weeks. An estimated 104 worker trips, six vendor trips and four delivery truck trips per day would be traveling to the Project site. On-site parking would be provided for all construction workers. During grading, the Project site would be watering actively disturbed on-site areas at least three

SEVILLE 4 SOLAR PROJECT
SUPPLEMENTAL PROJECT DESCRIPTION FOR CALEEMOD ASSESSMENT
JULY 2017

times a day as necessary to reduce fugitive dust emissions. The equipment expected to be used during the grading phase is provided in Table 3.

Table 3– Anticipated Grading and Fencing Equipment

Equipment Type	Amount	Daily Usage (Hours)	Horsepower
Graders	2	6	187
Water Trucks (Off-Highway Trucks)	2	7	402
Rubber Tired Dozers	2	6	247
Scrapers	3	6	367
Tractors/Loaders/Backhoes	2	6	97
Excavators	2	6	158
Skid Steer Loaders	2	6	65

Racking installation (installation of the supports for the PV arrays) would commence once grading and fencing is complete. Approximately ten haul truck trips per day would deliver equipment and supplies to the Project site laydown area or directly to the active work area. Racking installation is expected to take about 10 weeks. Racking installation is expected to generate 112 worker trips per day traveling to the Project site. On-site parking would be provided for all construction workers. During this construction period, crews of laborers would commence their work at a point on the perimeter or from another point within the site, and continue their work until their assigned area is complete.

During racking installation each on-road delivery truck may be driving an estimated one mile on on-site unpaved roads to deliver construction materials directly to the active work locations.

The equipment anticipated to be used during racking installation for the Project is provided in Table 4. During racking installation, the Project would be watering actively disturbed on-site areas at least three times a day.

Table 4– Racking Installation Equipment

Equipment Type	Amount	Daily Usage (Hours)	Horsepower
Generator Sets	1	8	84
Water Trucks (Off-Highway Trucks)	1	6	402
Other General Industrial Equipment	6	6	88
Skid Steer Loaders	2	7	78

Solar panel installation would commence once sufficient racking is installed. Approximately ten haul truck trips per day (typical eighteen wheelers and similar sized trucks) would deliver solar panels and other equipment and supplies to the Project site laydown area or directly to the active work area. Solar panel installation is expected to also take about 10 weeks. Solar panel installation is expected to generate 112 worker trips per day traveling to and from the Project site. On-site parking would be provided for all construction workers. During this construction period, crews of laborers would commence their work at a point on the perimeter or from another point within the site, and continue their work until their assigned area is complete. Work crews would carry out the task of mounting the panels on the support frames. During solar panel installation each on-road delivery truck may be driving an estimated one mile on on-site unpaved roads to deliver construction materials directly to the active work locations.

SEVILLE 4 SOLAR PROJECT
SUPPLEMENTAL PROJECT DESCRIPTION FOR CALEEMOD ASSESSMENT
JULY 2017

The equipment anticipated to be used during solar panel installation is provided in Table 5. During panel installation, the Project would be watering actively disturbed on-site areas at least three times a day.

Table 5– Solar Panel Installation Equipment

Equipment Type	Amount	Daily Usage (Hours)	Horsepower
Generator Sets	1	8	84
Water Trucks (Off-Highway Trucks)	1	6	402
Other General Industrial Equipment	1	8	88
Trenchers	2	6	65
Skid Steer Loaders	2	7	78

The System Wiring and Trenching phase would commence once sufficient solar panels have been installed. Approximately 10 haul truck trips per day would deliver equipment and supplies to the Project site laydown area or directly to the active work area. System wiring and trenching is expected to take about 7 weeks. System wiring and trenching is expected to also generate 32 worker trips per day traveling to the Project site. On-site parking would be provided for all construction workers. During this construction period, crews of laborers would commence their work at a point on the perimeter or from another point within the site, and continue their work until their assigned area is complete. During system wiring and trenching each on-road delivery truck may be driving an estimated one mile on on-site unpaved roads to deliver system wiring construction materials directly to the active work locations.

The equipment anticipated to be used during system wiring and trenching for the Project is provided in Table 6. During system wiring and trenching, the Project would be watering actively disturbed on-site areas at least three times a day.

Table 6– System Wiring and Trenching Equipment

Equipment Type	Amount	Daily Usage (Hours)	Horsepower
Generator Sets	2	8	84
Water Trucks (Off-Highway Trucks)	1	6	402
Other General Industrial Equipment	1	8	88
Trenchers	2	6	65
Skid Steer Loaders	2	7	78

Inverter installation would commence and work in parallel with solar panel installation and system wiring and trenching. Inverter installation is expected to take about 5 weeks. Inverter installation is expected to generate 32 worker trips and 16 haul truck trips per day traveling to the Project site. On-site parking would be provided for all construction workers. During this construction period, crews of laborers would commence their work at a point on the perimeter or from another point within the site, and continue their work until their assigned area is complete.

The equipment anticipated to be used during inverter installation for the Project is provided in Table 7. During inverter installation each on-road delivery truck may be driving an estimated one mile on on-site unpaved roads to deliver inverter installation construction materials directly to the active work locations. During inverter installation, the Project would be watering actively disturbed on-site areas at least three times a day.

SEVILLE 4 SOLAR PROJECT
SUPPLEMENTAL PROJECT DESCRIPTION FOR CALEEMOD ASSESSMENT
JULY 2017

Table 7– Inverter Installation Equipment

Equipment Type	Amount	Daily Usage (Hours)	Horsepower
Generator Sets	1	8	84
Water Trucks (Off-Highway Trucks)	1	6	402
Other General Industrial Equipment	1	8	88
Skid Steer Loaders	2	7	78

The electrical substation and switch station for the Project would be built in parallel with the gentie power line. The substation and switch station would be located adjacent to the existing Seville 1 and Seville 2 substation and switch station in Lot C/Lot D of the subdivision. Construction of the substation and switch station would likely require an estimated eight weeks to complete. An estimated 16 worker trips and four haul truck trips per day would be required for construction, each traveling the approximately 0.6 miles of all-weather private road to and from State Route 78 and the substation and switch station. The substation and switch station equipment is expected to be pre-painted and not require painting (coating) on site. The equipment anticipated to be used during substation and switch station construction is provided in Table 8.

Table 8– Anticipated Substation & Switch Station Construction Equipment

Equipment Type	Amount	Daily Usage (Hours)	Horsepower
Aerial Lifts	2	6	63
Cranes	1	6	231
Other General Industrial Equipment	1	8	88
Tractor/Loader/Backhoe	1	6	97

Construction of the 34.5 kV gentie line would occur simultaneously with initial construction of the Project substation. Approximately 2.25 miles of new 34.5 kV gentie line would be constructed for the Project. Construction of the gentie line would be expected to take approximately four weeks. An estimated 16 worker trips and two vendor trips per day would be required for construction of the gentie line, each traveling an average of 1.7 miles of all-weather private road to and from the construction site and State Route 78. The equipment anticipated to be used during construction of the gentie power line is provided in Table 9.

Table 9– Anticipated GenTie Line Equipment

Equipment Type	Amount	Daily Usage (Hours)	Horsepower
Aerial Lifts	3	4	63
Crawler Tractors	2	4	212
Other General Industrial Equipment	1	8	88

Once the project's substation and gentie power line have been constructed, the installed solar panels will begin delivering power to the IID system and operation of the Project will have begun. The Project is not expected to have a regular on-site staff based at the Project site during operation of the solar plant. Workers may occasionally be required to maintain the common access roads and storm water retention basins, clean the solar panels, and/or perform specific maintenance activities. During the Project operations phase, up to eight worker trips and two vendor truck trips could occur daily.

SEVILLE 4 SOLAR PROJECT
SUPPLEMENTAL PROJECT DESCRIPTION FOR CALEEMOD ASSESSMENT
JULY 2017

Periodic washing of the PV modules could be needed to remove dust in order to maintain power generation efficiency. The amount of water needed for this purpose is conservatively estimated at five acre feet per washing (depending on the water required for dust control during panel washing), with up to two washings per year, or a total of up to 10 acre feet per year. This water would be obtained from the Ranch Oasis Mutual Water Company. Each washing is expected to take less than one week to complete. The equipment anticipated to be used during operations is provided in Table 10.

Table 10- Anticipated Operations Equipment

Equipment Type	Amount	Daily Usage (Hours)	Horsepower
Water Trucks (Off-Highway Trucks)	1	6	402

The Project (HSAT array) would consume an estimated 300 kW-hours of electrical energy daily from the IID power system to operate the solar panel trackers, the on-site security system and the solar facility monitoring and control system. The fixed-frame array would expect to consume only 250 kW-hours of electrical energy daily, as there are no solar trackers. Very little general waste is expected to be generated during normal operations.

Table 11, Table 12, and Table 13 summarize the expected number of worker, vendor truck and haul truck trips, respectively, expected per day for each phase of the project construction and operation.

Table 11– Anticipated Worker Trips During Project Construction

	Month 1		Month 2		Month 3		Month 4		Month 5		Month 6													
	Week #																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Access Road Construction	12	12																						
Grading/Fencing			104	104	104																			
Racking Installation						112	112	112	112	112	112	112	112	112	112	112	112	112	112	112	112	112	112	
GenTie Power Line Construc.												16	16	16	16									
Substation Construc.												16	16	16	16	16	16	16	16	16				
Solar Panel Installation												112	112	112	112	112	112	112	112	112	112	112	112	
System Wiring & Trenching															32	32	32	32	32	32	32			
Inverter Installation																			32	32	32	32	32	
Operations																								8

Table 12– Anticipated Vendor Truck Trips During Project Construction

	Month 1		Month 2		Month 3		Month 4		Month 5		Month 6													
	Week #																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Access Road Construction	0	0																						
Grading/Fencing		6	6	6																				
Racking Installation					0	0	0	0	0	0	0	0	0	0	0	0								
GenTie Power Line Construc.										2	2	2	2											
Substation Construc.										0	0	0	0	0	0	0	0	0						
Solar Panel Installation										0	0	0	0	0	0	0	0	0	0	0				
System Wiring & Trenching													0	0	0	0	0	0	0	0	0			
Inverter Installation																0	0	0	0	0	0	0		
Operations																								2

SEVILLE 4 SOLAR PROJECT
SUPPLEMENTAL PROJECT DESCRIPTION FOR CALEEMOD ASSESSMENT
JULY 2017

Table 13 - Anticipated Haul Truck Trips During Project Construction

	Month 1		Month 2		Month 3		Month 4		Month 5		Month 6														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
Access Road Construction	12	12																							
Grading/Fencing			4	4	4																				
Racking Installation					10	10	10	10	10	10	10	10	10	10	10	10	10								
GenTie Power Line Construc.											0	0	0	0											
Substation Construc.											4	4	4	4	4	4	4	4							
Solar Panel Installation										10	10	10	10	10	10	10	10	10	10	10	10				
System Wiring & Trenching															10	10	10	10	10	10	10	10			
Inverter Installation																		16	16	16	16	16	16		
Operations																								0	

ATTACHMENT B
SEVILLE 4 SOLAR PROJECT
CONSTRUCTION & OPERATION ACTIVITIES

CalEEMod MODEL:

“SEVILLE 4 PROJECT CONSTRUCTION CALEEMOD V04 HSAT.xls” (HSAT)
“SEVILLE 4 PROJECT CONSTRUCTION CALEEMOD V04 FF.xls” (FIXED FRAME)

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ATTACHMENT B-1
SEVILLE 4 SOLAR PROJECT
HSAT CONSTRUCTION & OPERATION ACTIVITIES
CalEEMod MODEL OUTPUTS - SUMMER
MODEL "SEVILLE 4 CALEEMOD V04 HSAT.xls"

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Seville 4 Solar Project - HSAT - Imperial County, Summer

Seville 4 Solar Project - HSAT
Imperial County, Summer

1.0 Project Characteristics**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	174.00	User Defined Unit	174.00	7,579,440.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	3.4	Precipitation Freq (Days)	12
Climate Zone	15			Operational Year	2018
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	1270.9	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - *

Land Use - HSAT Facility located on up to approximately 174 acres of land

Construction Phase - Anticipated Construction Schedule

Off-road Equipment - 1 grader for 8 hrs; 1 off-highway (water) truck for 8 hrs, 1 roller for 6 hrs

Off-road Equipment - *

Off-road Equipment - 3 aerial lifts for 4 hrs; 2 crawler tractors for 4 hrs; 1 other general industrial equipment for 8 hrs

Off-road Equipment - 2 excavators for 6 hrs; 2 graders for 6 hrs; 2 off-highway (water) truck for 7 hrs, 2 rubber tired dozers; 3 scrapers for 6 hrs; 2 skid steer loaders for 6 hrs; 2 tractor/loader/backhoe for 6 hrs

Off-road Equipment - 1 generator set for 8 hrs; 1 off-highway (water) truck for 6 hrs, 1 other general industrial equipment for 8 hrs; 2 skid steer loaders for 7 hrs

Off-road Equipment - 1 generator set for 8 hrs; 1 off-highway (water) truck for 6 hrs, 6 other general industrial equipment for 6 hrs; 2 skid steer loaders for 7 hrs

Seville 4 Solar Project - HSAT - Imperial County, Summer

Off-road Equipment - 1 generator set for 8 hrs; 1 off-highway (water) truck for 6 hrs, 1 other general industrial equipment for 8 hrs; 2 skid steer loaders for 7 hrs; 2 trenchers for 6 hrs

Off-road Equipment - 2 aerial lifts for 6 hrs; 1 crane for 6 hrs; 1 other general industrial equipment for 8 hrs; 1 tractor/loader/backhoe for 6 hrs

Off-road Equipment - 2 generator set for 8 hrs; 1 off-highway (water) truck for 6 hrs, 1 other general industrial equipment for 8 hrs; 2 skid steer loaders for 7 hrs; 2 trenchers for 6 hrs

Trips and VMT - Anticipated Worker, Vendor and Haul Truck Trips Included

On-road Fugitive Dust - All public roads traveled to the Project will be paved. Travel on unpaved private road are calculated in a separate workbook

Grading - Approx 10 acres graded total during access road construction; Approx 522 acres graded total during grading for the HSAT Facility

Vehicle Trips - Anticipated Worker, Vendor and Haul Truck Trips Included

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Road Dust -

Consumer Products - None

Area Coating - None

Energy Use - The Project would consume an estimated 300 kW-hrs of electrical energy daily;

Water And Wastewater - 10 acre-feet per year

Construction Off-road Equipment Mitigation - Watering will occur two time per day on exposed areas

Operational Off-Road Equipment - *

Fleet Mix - *

Table Name	Column Name	Default Value	New Value
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstructionPhase	NumDays	3,100.00	60.00
tblConstructionPhase	NumDays	3,100.00	24.00
tblConstructionPhase	NumDays	3,100.00	48.00
tblConstructionPhase	NumDays	3,100.00	60.00
tblConstructionPhase	NumDays	3,100.00	42.00

Seville 4 Solar Project - HSAT - Imperial County, Summer

tblConstructionPhase	NumDays	3,100.00	30.00
tblConstructionPhase	NumDays	310.00	12.00
tblConstructionPhase	NumDays	310.00	18.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
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tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblEnergyUse	T24E	0.00	0.02
tblGrading	AcresOfGrading	6.00	10.00
tblGrading	AcresOfGrading	54.00	522.00
tblLandUse	BuildingSpaceSquareFeet	0.00	7,579,440.00
tblLandUse	LandUseSquareFeet	0.00	7,579,440.00
tblLandUse	LotAcreage	0.00	174.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00

Seville 4 Solar Project - HSAT - Imperial County, Summer

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	PhaseName		Access Road Construction
tblOffRoadEquipment	PhaseName		Access Road Construction

Seville 4 Solar Project - HSAT - Imperial County, Summer

tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
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tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
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tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00

Seville 4 Solar Project - HSAT - Imperial County, Summer

tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	6.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripNumber	0.00	12.00
tblTripsAndVMT	HaulingTripNumber	0.00	4.00
tblTripsAndVMT	HaulingTripNumber	0.00	10.00
tblTripsAndVMT	HaulingTripNumber	0.00	4.00
tblTripsAndVMT	HaulingTripNumber	0.00	10.00
tblTripsAndVMT	HaulingTripNumber	0.00	10.00
tblTripsAndVMT	HaulingTripNumber	0.00	16.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	1,242.00	0.00
tblTripsAndVMT	VendorTripNumber	1,242.00	2.00
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tblTripsAndVMT	VendorTripNumber	1,242.00	0.00
tblTripsAndVMT	VendorTripNumber	1,242.00	0.00
tblTripsAndVMT	VendorTripNumber	1,242.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	12.00
tblTripsAndVMT	WorkerTripNumber	38.00	104.00
tblTripsAndVMT	WorkerTripNumber	3,183.00	112.00
tblTripsAndVMT	WorkerTripNumber	3,183.00	16.00
tblTripsAndVMT	WorkerTripNumber	3,183.00	16.00
tblTripsAndVMT	WorkerTripNumber	3,183.00	112.00

Seville 4 Solar Project - HSAT - Imperial County, Summer

tblTripsAndVMT	WorkerTripNumber	3,183.00	32.00
tblTripsAndVMT	WorkerTripNumber	3,183.00	32.00
tblVehicleTrips	CW_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	0.06
tblVehicleTrips	WD_TR	0.00	0.06
tblWater	OutdoorWaterUseRate	0.00	3,258,514.27

2.0 Emissions Summary

Seville 4 Solar Project - HSAT - Imperial County, Summer

2.1 Overall Construction (Maximum Daily Emission)**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day												lb/day			
2018	10.7131	87.8457	76.8015	0.1226	40.4189	4.9241	44.0775	8.4548	4.6141	11.8209	0.0000	12,145.38 48	12,145.38 48	3.0652	0.0000	12,215.78 48
Maximum	10.7131	87.8457	76.8015	0.1226	40.4189	4.9241	44.0775	8.4548	4.6141	11.8209	0.0000	12,145.38 48	12,145.38 48	3.0652	0.0000	12,215.78 48

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day												lb/day			
2018	10.7131	87.8457	76.8015	0.1226	18.5357	4.9241	22.1943	3.8974	4.6141	7.2636	0.0000	12,145.38 48	12,145.38 48	3.0652	0.0000	12,215.78 48
Maximum	10.7131	87.8457	76.8015	0.1226	18.5357	4.9241	22.1943	3.8974	4.6141	7.2636	0.0000	12,145.38 48	12,145.38 48	3.0652	0.0000	12,215.78 48

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	54.14	0.00	49.65	53.90	0.00	38.55	0.00	0.00	0.00	0.00	0.00	0.00

Seville 4 Solar Project - HSAT - Imperial County, Summer

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.7200e-003	1.7000e-004	0.0180	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0381	0.0381	1.0000e-004			0.0407
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0463	0.2776	0.5124	1.0400e-003	26.0615	1.0900e-003	26.0626	2.6011	1.0300e-003	2.6021	105.7493	105.7493	8.8400e-003			105.9702
Offroad	0.5800	6.2438	3.1512	9.9100e-003		0.2279	0.2279		0.2097	0.2097	997.2121	997.2121	0.3105			1,004.9732
Total	0.6280	6.5215	3.6817	0.0110	26.0615	0.2290	26.2905	2.6011	0.2108	2.8118	1,102.9994	1,102.9994	0.3194	0.0000	1,110.9841	

Seville 4 Solar Project - HSAT - Imperial County, Summer

2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.7200e-003	1.7000e-004	0.0180	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0381	0.0381	1.0000e-004			0.0407
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0463	0.2776	0.5124	1.0400e-003	26.0615	1.0900e-003	26.0626	2.6011	1.0300e-003	2.6021	105.7493	105.7493	8.8400e-003			105.9702
Offroad	0.5800	6.2438	3.1512	9.9100e-003		0.2279	0.2279		0.2097	0.2097	997.2121	997.2121	0.3105			1,004.9732
Total	0.6280	6.5215	3.6817	0.0110	26.0615	0.2290	26.2905	2.6011	0.2108	2.8118	1,102.9994	1,102.9994	0.3194	0.0000	1,110.9841	

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Seville 4 Solar Project - HSAT - Imperial County, Summer

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Access Road Construction	Grading	4/1/2018	4/14/2018	6	12	
2	Grading	Grading	4/15/2018	5/5/2018	6	18	
3	Rack Installation	Building Construction	5/6/2018	7/14/2018	6	60	
4	GenTie Line Construction	Building Construction	6/11/2018	7/8/2018	6	24	
5	Substation Construction	Building Construction	6/11/2018	8/5/2018	6	48	
6	Solar Panel Installation	Building Construction	6/11/2018	8/19/2018	6	60	
7	System Wiring and Trenching	Building Construction	7/9/2018	8/26/2018	6	42	
8	Inverter Installation	Building Construction	8/6/2018	9/9/2018	6	30	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 522

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Access Road Construction	Excavators	0	8.00	158	0.38
Access Road Construction	Graders	1	8.00	187	0.41
Access Road Construction	Off-Highway Trucks	1	8.00	402	0.38
Access Road Construction	Rollers	1	6.00	80	0.38
Access Road Construction	Rubber Tired Dozers	0	8.00	247	0.40
Access Road Construction	Scrapers	0	8.00	367	0.48
Access Road Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Excavators	2	6.00	158	0.38

Seville 4 Solar Project - HSAT - Imperial County, Summer

Grading	Graders	2	6.00	187	0.41
Grading	Off-Highway Trucks	2	7.00	402	0.38
Grading	Rubber Tired Dozers	2	6.00	247	0.40
Grading	Scrapers	3	6.00	367	0.48
Grading	Skid Steer Loaders	2	6.00	65	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Rack Installation	Cranes	0	7.00	231	0.29
Rack Installation	Forklifts	0	8.00	89	0.20
Rack Installation	Generator Sets	1	8.00	84	0.74
Rack Installation	Off-Highway Trucks	1	6.00	402	0.38
Rack Installation	Other General Industrial Equipment	6	6.00	88	0.34
Rack Installation	Skid Steer Loaders	2	7.00	65	0.37
Rack Installation	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Rack Installation	Welders	0	8.00	46	0.45
GenTie Line Construction	Aerial Lifts	3	4.00	63	0.31
GenTie Line Construction	Cranes	0	7.00	231	0.29
GenTie Line Construction	Crawler Tractors	2	4.00	212	0.43
GenTie Line Construction	Forklifts	0	8.00	89	0.20
GenTie Line Construction	Generator Sets	0	8.00	84	0.74
GenTie Line Construction	Other General Industrial Equipment	1	8.00	88	0.34
GenTie Line Construction	Tractors/Loaders/Backhoes	0	7.00	97	0.37
GenTie Line Construction	Welders	0	8.00	46	0.45
Substation Construction	Aerial Lifts	2	6.00	63	0.31
Substation Construction	Cranes	1	6.00	231	0.29
Substation Construction	Forklifts	0	8.00	89	0.20
Substation Construction	Generator Sets	0	8.00	84	0.74
Substation Construction	Other General Industrial Equipment	1	8.00	88	0.34

Seville 4 Solar Project - HSAT - Imperial County, Summer

Substation Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Substation Construction	Welders	0	8.00	46	0.45
Solar Panel Installation	Cranes	0	7.00	231	0.29
Solar Panel Installation	Forklifts	0	8.00	89	0.20
Solar Panel Installation	Generator Sets	1	8.00	84	0.74
Solar Panel Installation	Off-Highway Trucks	1	6.00	402	0.38
Solar Panel Installation	Other General Industrial Equipment	1	8.00	88	0.34
Solar Panel Installation	Skid Steer Loaders	2	7.00	65	0.37
Solar Panel Installation	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Solar Panel Installation	Trenchers	2	6.00	78	0.50
Solar Panel Installation	Welders	0	8.00	46	0.45
System Wiring and Trenching	Cranes	0	7.00	231	0.29
System Wiring and Trenching	Forklifts	0	8.00	89	0.20
System Wiring and Trenching	Generator Sets	2	8.00	84	0.74
System Wiring and Trenching	Off-Highway Trucks	1	6.00	402	0.38
System Wiring and Trenching	Other General Industrial Equipment	1	8.00	88	0.34
System Wiring and Trenching	Skid Steer Loaders	2	7.00	65	0.37
System Wiring and Trenching	Tractors/Loaders/Backhoes	0	7.00	97	0.37
System Wiring and Trenching	Trenchers	2	6.00	78	0.50
System Wiring and Trenching	Welders	0	8.00	46	0.45
Inverter Installation	Cranes	0	7.00	231	0.29
Inverter Installation	Forklifts	0	8.00	89	0.20
Inverter Installation	Generator Sets	1	8.00	84	0.74
Inverter Installation	Off-Highway Trucks	1	6.00	402	0.38
Inverter Installation	Other General Industrial Equipment	1	8.00	88	0.34
Inverter Installation	Skid Steer Loaders	2	7.00	65	0.37
Inverter Installation	Tractors/Loaders/Backhoes	0	7.00	97	0.37

Seville 4 Solar Project - HSAT - Imperial County, Summer

Inverter Installation	Welders		0	8.00	46	0.45
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Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Access Road Construction	3	12.00	0.00	12.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	15	104.00	6.00	4.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
Rack Installation	10	112.00	0.00	10.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
GenTie Line Construction	6	16.00	2.00	0.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
Substation Construction	5	16.00	0.00	4.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
Solar Panel Installation	7	112.00	0.00	10.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
System Wiring and Trenching	8	32.00	0.00	10.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
Inverter Installation	5	32.00	0.00	16.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

Seville 4 Solar Project - HSAT - Imperial County, Summer

3.2 Access Road Construction - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Fugitive Dust					0.8838	0.0000	0.8838	0.0954	0.0000	0.0954			0.0000			0.0000	
Off-Road	1.4865	17.3226	7.5679	0.0218		0.6643	0.6643		0.6111	0.6111		2,197.481 2	2,197.481 2	0.6841		2,214.583 8	
Total	1.4865	17.3226	7.5679	0.0218	0.8838	0.6643	1.5480	0.0954	0.6111	0.7065		2,197.481 2	2,197.481 2	0.6841		2,214.583 8	

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	6.0400e-003	0.2654	0.0330	8.0000e-004	0.0175	1.0000e-003	0.0185	4.8100e-003	9.5000e-004	5.7600e-003		83.4925	83.4925	3.4300e-003		83.5781	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000	
Worker	0.0976	0.0626	0.7258	7.3000e-004	0.0667	4.9000e-004	0.0672	0.0177	4.5000e-004	0.0181		72.3902	72.3902	6.9100e-003		72.5629	
Total	0.1037	0.3279	0.7589	1.5300e-003	0.0842	1.4900e-003	0.0857	0.0225	1.4000e-003	0.0239		155.8826	155.8826	0.0103		156.1410	

Seville 4 Solar Project - HSAT - Imperial County, Summer

3.2 Access Road Construction - 2018**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Fugitive Dust					0.3977	0.0000	0.3977	0.0429	0.0000	0.0429			0.0000			0.0000	
Off-Road	1.4865	17.3226	7.5679	0.0218		0.6643	0.6643		0.6111	0.6111	0.0000	2,197.481 2	2,197.481 2	0.6841		2,214.583 8	
Total	1.4865	17.3226	7.5679	0.0218	0.3977	0.6643	1.0619	0.0429	0.6111	0.6541	0.0000	2,197.481 2	2,197.481 2	0.6841		2,214.583 8	

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	6.0400e-003	0.2654	0.0330	8.0000e-004	0.0175	1.0000e-003	0.0185	4.8100e-003	9.5000e-004	5.7600e-003	83.4925	83.4925	3.4300e-003			83.5781	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	
Worker	0.0976	0.0626	0.7258	7.3000e-004	0.0667	4.9000e-004	0.0672	0.0177	4.5000e-004	0.0181	72.3902	72.3902	6.9100e-003			72.5629	
Total	0.1037	0.3279	0.7589	1.5300e-003	0.0842	1.4900e-003	0.0857	0.0225	1.4000e-003	0.0239		155.8826	155.8826	0.0103		156.1410	

Seville 4 Solar Project - HSAT - Imperial County, Summer

3.3 Grading - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Fugitive Dust					39.7876	0.0000	39.7876	8.2861	0.0000	8.2861			0.0000			0.0000	
Off-Road	7.4328	86.4391	47.0666	0.0955		3.6472	3.6472		3.3554	3.3554		9,613.154 1	9,613.154 1	2.9927			9,687.971 7
Total	7.4328	86.4391	47.0666	0.0955	39.7876	3.6472	43.4348	8.2861	3.3554	11.6415		9,613.154 1	9,613.154 1	2.9927			9,687.971 7

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	1.3400e-003	0.0590	7.3400e-003	1.8000e-004	3.9000e-003	2.2000e-004	4.1200e-003	1.0700e-003	2.1000e-004	1.2800e-003		18.5539	18.5539	7.6000e-004			18.5729
Vendor	0.0349	0.8056	0.2447	1.9800e-003	0.0496	6.9900e-003	0.0566	0.0143	6.6900e-003	0.0210		206.9247	206.9247	0.0119			207.2219
Worker	0.8460	0.5421	6.2906	6.3700e-003	0.5778	4.2300e-003	0.5820	0.1533	3.9000e-003	0.1572		627.3813	627.3813	0.0599			628.8783
Total	0.8823	1.4067	6.5427	8.5300e-003	0.6313	0.0114	0.6427	0.1686	0.0108	0.1794		852.8599	852.8599	0.0725			854.6731

Seville 4 Solar Project - HSAT - Imperial County, Summer

3.3 Grading - 2018**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Fugitive Dust					17.9044	0.0000	17.9044	3.7288	0.0000	3.7288			0.0000			0.0000	
Off-Road	7.4328	86.4391	47.0666	0.0955		3.6472	3.6472		3.3554	3.3554	0.0000	9,613.154 1	9,613.154 1	2.9927		9,687.971 7	
Total	7.4328	86.4391	47.0666	0.0955	17.9044	3.6472	21.5516	3.7288	3.3554	7.0841	0.0000	9,613.154 1	9,613.154 1	2.9927		9,687.971 7	

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	1.3400e-003	0.0590	7.3400e-003	1.8000e-004	3.9000e-003	2.2000e-004	4.1200e-003	1.0700e-003	2.1000e-004	1.2800e-003			18.5539	18.5539	7.6000e-004		18.5729
Vendor	0.0349	0.8056	0.2447	1.9800e-003	0.0496	6.9900e-003	0.0566	0.0143	6.6900e-003	0.0210			206.9247	206.9247	0.0119		207.2219
Worker	0.8460	0.5421	6.2906	6.3700e-003	0.5778	4.2300e-003	0.5820	0.1533	3.9000e-003	0.1572			627.3813	627.3813	0.0599		628.8783
Total	0.8823	1.4067	6.5427	8.5300e-003	0.6313	0.0114	0.6427	0.1686	0.0108	0.1794			852.8599	852.8599	0.0725		854.6731

Seville 4 Solar Project - HSAT - Imperial County, Summer

3.4 Rack Installation - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day												lb/day			
Off-Road	2.5690	24.2454	18.5396	0.0316		1.5238	1.5238		1.4229	1.4229	3,143.526 2	3,143.526 2	0.8296		3,164.266 5	
Total	2.5690	24.2454	18.5396	0.0316		1.5238	1.5238		1.4229	1.4229	3,143.526 2	3,143.526 2	0.8296		3,164.266 5	

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day												lb/day			
Hauling	1.0100e-003	0.0442	5.5100e-003	1.3000e-004	2.9200e-003	1.7000e-004	3.0900e-003	8.0000e-004	1.6000e-004	9.6000e-004	13.9154	13.9154	5.7000e-004		13.9297	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.9111	0.5838	6.7745	6.8600e-003	0.6223	4.5500e-003	0.6268	0.1651	4.2000e-003	0.1693	675.6414	675.6414	0.0645		677.2536	
Total	0.9121	0.6280	6.7800	6.9900e-003	0.6252	4.7200e-003	0.6299	0.1659	4.3600e-003	0.1703	689.5568	689.5568	0.0651		691.1832	

Seville 4 Solar Project - HSAT - Imperial County, Summer

3.4 Rack Installation - 2018**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Off-Road	2.5690	24.2454	18.5396	0.0316		1.5238	1.5238		1.4229	1.4229	0.0000	3,143.526 2	3,143.526 2	0.8296		3,164.266 5	
Total	2.5690	24.2454	18.5396	0.0316		1.5238	1.5238		1.4229	1.4229	0.0000	3,143.526 2	3,143.526 2	0.8296		3,164.266 5	

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	1.0100e-003	0.0442	5.5100e-003	1.3000e-004	2.9200e-003	1.7000e-004	3.0900e-003	8.0000e-004	1.6000e-004	9.6000e-004			13.9154	13.9154	5.7000e-004		13.9297
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000		0.0000
Worker	0.9111	0.5838	6.7745	6.8600e-003	0.6223	4.5500e-003	0.6268	0.1651	4.2000e-003	0.1693			675.6414	675.6414	0.0645		677.2536
Total	0.9121	0.6280	6.7800	6.9900e-003	0.6252	4.7200e-003	0.6299	0.1659	4.3600e-003	0.1703			689.5568	689.5568	0.0651		691.1832

Seville 4 Solar Project - HSAT - Imperial County, Summer

3.5 GenTie Line Construction - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day												lb/day			
Off-Road	0.9974	12.1853	6.3403	0.0129		0.5579	0.5579		0.5133	0.5133	1,301.477 1	1,301.477 1	0.4052		1,311.606 3	
Total	0.9974	12.1853	6.3403	0.0129		0.5579	0.5579		0.5133	0.5133	1,301.477 1	1,301.477 1	0.4052		1,311.606 3	

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day												lb/day			
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0116	0.2685	0.0816	6.6000e-004	0.0165	2.3300e-003	0.0189	4.7600e-003	2.2300e-003	6.9800e-003	68.9749	68.9749	3.9600e-003		69.0740	
Worker	0.1302	0.0834	0.9678	9.8000e-004	0.0889	6.5000e-004	0.0895	0.0236	6.0000e-004	0.0242	96.5202	96.5202	9.2100e-003		96.7505	
Total	0.1418	0.3519	1.0494	1.6400e-003	0.1054	2.9800e-003	0.1084	0.0284	2.8300e-003	0.0312	165.4951	165.4951	0.0132		165.8245	

Seville 4 Solar Project - HSAT - Imperial County, Summer

3.5 GenTie Line Construction - 2018**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day														lb/day	
Off-Road	0.9974	12.1853	6.3403	0.0129		0.5579	0.5579		0.5133	0.5133	0.0000	1,301.477 1	1,301.477 1	0.4052		1,311.606 3
Total	0.9974	12.1853	6.3403	0.0129		0.5579	0.5579		0.5133	0.5133	0.0000	1,301.477 1	1,301.477 1	0.4052		1,311.606 3

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day														lb/day	
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0116	0.2685	0.0816	6.6000e-004	0.0165	2.3300e-003	0.0189	4.7600e-003	2.2300e-003	6.9800e-003	68.9749	68.9749	3.9600e-003			69.0740
Worker	0.1302	0.0834	0.9678	9.8000e-004	0.0889	6.5000e-004	0.0895	0.0236	6.0000e-004	0.0242	96.5202	96.5202	9.2100e-003			96.7505
Total	0.1418	0.3519	1.0494	1.6400e-003	0.1054	2.9800e-003	0.1084	0.0284	2.8300e-003	0.0312		165.4951	165.4951	0.0132		165.8245

Seville 4 Solar Project - HSAT - Imperial County, Summer

3.6 Substation Construction - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9847	10.7686	7.3257	0.0117		0.5973	0.5973		0.5495	0.5495	1,181.109 7	1,181.109 7	0.3677			1,190.302 0
Total	0.9847	10.7686	7.3257	0.0117		0.5973	0.5973		0.5495	0.5495	1,181.109 7	1,181.109 7	0.3677			1,190.302 0

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.0000e-004	0.0221	2.7500e-003	7.0000e-005	1.4600e-003	8.0000e-005	1.5400e-003	4.0000e-004	8.0000e-005	4.8000e-004	6.9577	6.9577	2.9000e-004			6.9648
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.1302	0.0834	0.9678	9.8000e-004	0.0889	6.5000e-004	0.0895	0.0236	6.0000e-004	0.0242	96.5202	96.5202	9.2100e-003			96.7505
Total	0.1307	0.1055	0.9705	1.0500e-003	0.0904	7.3000e-004	0.0911	0.0240	6.8000e-004	0.0247	103.4779	103.4779	9.5000e-003			103.7154

Seville 4 Solar Project - HSAT - Imperial County, Summer

3.6 Substation Construction - 2018**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9847	10.7686	7.3257	0.0117		0.5973	0.5973		0.5495	0.5495	0.0000	1,181.109 7	1,181.109 7	0.3677		1,190.302 0
Total	0.9847	10.7686	7.3257	0.0117		0.5973	0.5973		0.5495	0.5495	0.0000	1,181.109 7	1,181.109 7	0.3677		1,190.302 0

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.0000e-004	0.0221	2.7500e-003	7.0000e-005	1.4600e-003	8.0000e-005	1.5400e-003	4.0000e-004	8.0000e-005	4.8000e-004	6.9577	6.9577	2.9000e-004			6.9648
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1302	0.0834	0.9678	9.8000e-004	0.0889	6.5000e-004	0.0895	0.0236	6.0000e-004	0.0242	96.5202	96.5202	9.2100e-003			96.7505
Total	0.1307	0.1055	0.9705	1.0500e-003	0.0904	7.3000e-004	0.0911	0.0240	6.8000e-004	0.0247		103.4779	103.4779	9.5000e-003		103.7154

Seville 4 Solar Project - HSAT - Imperial County, Summer

3.7 Solar Panel Installation - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2187	21.1978	15.3575	0.0277		1.2646	1.2646		1.1844	1.1844	2,751.101 7	2,751.101 7	0.7075			2,768.787 8
Total	2.2187	21.1978	15.3575	0.0277		1.2646	1.2646		1.1844	1.1844	2,751.101 7	2,751.101 7	0.7075			2,768.787 8

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.0100e-003	0.0442	5.5100e-003	1.3000e-004	2.9200e-003	1.7000e-004	3.0900e-003	8.0000e-004	1.6000e-004	9.6000e-004	13.9154	13.9154	5.7000e-004			13.9297
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.9111	0.5838	6.7745	6.8600e-003	0.6223	4.5500e-003	0.6268	0.1651	4.2000e-003	0.1693	675.6414	675.6414	0.0645			677.2536
Total	0.9121	0.6280	6.7800	6.9900e-003	0.6252	4.7200e-003	0.6299	0.1659	4.3600e-003	0.1703	689.5568	689.5568	0.0651			691.1832

Seville 4 Solar Project - HSAT - Imperial County, Summer

3.7 Solar Panel Installation - 2018**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day														lb/day	
Off-Road	2.2187	21.1978	15.3575	0.0277		1.2646	1.2646		1.1844	1.1844	0.0000	2,751.101	2,751.101	0.7075		2,768.787
Total	2.2187	21.1978	15.3575	0.0277		1.2646	1.2646		1.1844	1.1844	0.0000	2,751.101	2,751.101	0.7075		2,768.787

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day														lb/day		
Hauling	1.0100e-003	0.0442	5.5100e-003	1.3000e-004	2.9200e-003	1.7000e-004	3.0900e-003	8.0000e-004	1.6000e-004	9.6000e-004			13.9154	13.9154	5.7000e-004		13.9297
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.9111	0.5838	6.7745	6.8600e-003	0.6223	4.5500e-003	0.6268	0.1651	4.2000e-003	0.1693			675.6414	675.6414	0.0645		677.2536
Total	0.9121	0.6280	6.7800	6.9900e-003	0.6252	4.7200e-003	0.6299	0.1659	4.3600e-003	0.1703			689.5568	689.5568	0.0651		691.1832

Seville 4 Solar Project - HSAT - Imperial County, Summer

3.8 System Wiring and Trenching - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.7241	25.3111	19.1047	0.0343		1.5266	1.5266		1.4464	1.4464	3,374.136 2	3,374.136 2	0.7524			3,392.946 1
Total	2.7241	25.3111	19.1047	0.0343		1.5266	1.5266		1.4464	1.4464	3,374.136 2	3,374.136 2	0.7524			3,392.946 1

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.4400e-003	0.0632	7.8600e-003	1.9000e-004	4.1700e-003	2.4000e-004	4.4100e-003	1.1500e-003	2.3000e-004	1.3700e-003	19.8792	19.8792	8.2000e-004			19.8996
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.2603	0.1668	1.9356	1.9600e-003	0.1778	1.3000e-003	0.1791	0.0472	1.2000e-003	0.0484	193.0404	193.0404	0.0184			193.5010
Total	0.2618	0.2300	1.9434	2.1500e-003	0.1820	1.5400e-003	0.1835	0.0483	1.4300e-003	0.0497	212.9196	212.9196	0.0192			213.4006

Seville 4 Solar Project - HSAT - Imperial County, Summer

3.8 System Wiring and Trenching - 2018**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day												lb/day			
Off-Road	2.7241	25.3111	19.1047	0.0343		1.5266	1.5266		1.4464	1.4464	0.0000	3,374.1362	3,374.1362	0.7524		3,392.9461
Total	2.7241	25.3111	19.1047	0.0343		1.5266	1.5266		1.4464	1.4464	0.0000	3,374.1362	3,374.1362	0.7524		3,392.9461

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day												lb/day				
Hauling	1.4400e-003	0.0632	7.8600e-003	1.9000e-004	4.1700e-003	2.4000e-004	4.4100e-003	1.1500e-003	2.3000e-004	1.3700e-003			19.8792	19.8792	8.2000e-004		19.8996
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000		0.0000
Worker	0.2603	0.1668	1.9356	1.9600e-003	0.1778	1.3000e-003	0.1791	0.0472	1.2000e-003	0.0484			193.0404	193.0404	0.0184		193.5010
Total	0.2618	0.2300	1.9434	2.1500e-003	0.1820	1.5400e-003	0.1835	0.0483	1.4300e-003	0.0497			212.9196	212.9196	0.0192		213.4006

Seville 4 Solar Project - HSAT - Imperial County, Summer

3.9 Inverter Installation - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Off-Road	1.5397	15.0946	11.3802	0.0227		0.8004	0.8004		0.7573	0.7573		2,241.704 6	2,241.704 6	0.5489		2,255.426 2	
Total	1.5397	15.0946	11.3802	0.0227		0.8004	0.8004		0.7573	0.7573		2,241.704 6	2,241.704 6	0.5489		2,255.426 2	

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	3.2200e-003	0.1415	0.0176	4.2000e-004	9.3500e-003	5.3000e-004	9.8800e-003	2.5600e-003	5.1000e-004	3.0700e-003		44.5293	44.5293	1.8300e-003		44.5750	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000	
Worker	0.2603	0.1668	1.9356	1.9600e-003	0.1778	1.3000e-003	0.1791	0.0472	1.2000e-003	0.0484		193.0404	193.0404	0.0184		193.5010	
Total	0.2635	0.3083	1.9532	2.3800e-003	0.1871	1.8300e-003	0.1890	0.0497	1.7100e-003	0.0514		237.5697	237.5697	0.0203		238.0760	

Seville 4 Solar Project - HSAT - Imperial County, Summer

3.9 Inverter Installation - 2018**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5397	15.0946	11.3802	0.0227		0.8004	0.8004		0.7573	0.7573	0.0000	2,241.704	2,241.704	0.5489		2,255.426
Total	1.5397	15.0946	11.3802	0.0227		0.8004	0.8004		0.7573	0.7573	0.0000	2,241.704	2,241.704	0.5489		2,255.426

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.2200e-003	0.1415	0.0176	4.2000e-004	9.3500e-003	5.3000e-004	9.8800e-003	2.5600e-003	5.1000e-004	3.0700e-003	44.5293	44.5293	1.8300e-003			44.5750
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.2603	0.1668	1.9356	1.9600e-003	0.1778	1.3000e-003	0.1791	0.0472	1.2000e-003	0.0484	193.0404	193.0404	0.0184			193.5010
Total	0.2635	0.3083	1.9532	2.3800e-003	0.1871	1.8300e-003	0.1890	0.0497	1.7100e-003	0.0514		237.5697	237.5697	0.0203		238.0760

4.0 Operational Detail - Mobile

Seville 4 Solar Project - HSAT - Imperial County, Summer

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0463	0.2776	0.5124	1.0400e-003	26.0615	1.0900e-003	26.0626	2.6011	1.0300e-003	2.6021	105.7493	105.7493	8.8400e-003			105.9702
Unmitigated	0.0463	0.2776	0.5124	1.0400e-003	26.0615	1.0900e-003	26.0626	2.6011	1.0300e-003	2.6021	105.7493	105.7493	8.8400e-003			105.9702

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated		Mitigated	
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT	Annual VMT	Annual VMT
User Defined Industrial	10.44	10.44	0.00	21,824	21,824	21,824	21,824
Total	10.44	10.44	0.00	21,824	21,824	21,824	21,824

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	6.70	5.00	8.90	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.489745	0.035508	0.162111	0.141569	0.021911	0.005773	0.018523	0.113979	0.002979	0.001120	0.005181	0.000766	0.000834

Seville 4 Solar Project - HSAT - Imperial County, Summer

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Seville 4 Solar Project - HSAT - Imperial County, Summer

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

Seville 4 Solar Project - HSAT - Imperial County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Mitigated	1.7200e-003	1.7000e-004	0.0180	0.0000			6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0381	0.0381	1.0000e-004		0.0407
Unmitigated	1.7200e-003	1.7000e-004	0.0180	0.0000			6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0381	0.0381	1.0000e-004		0.0407

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	lb/day											lb/day					
Architectural Coating	0.0000						0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	
Landscaping	1.7200e-003	1.7000e-004	0.0180	0.0000			6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0381	0.0381	1.0000e-004		0.0407
Total	1.7200e-003	1.7000e-004	0.0180	0.0000			6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0381	0.0381	1.0000e-004		0.0407

Seville 4 Solar Project - HSAT - Imperial County, Summer

6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	lb/day										lb/day						
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000	
Landscaping	1.7200e-003	1.7000e-004	0.0180	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0381	0.0381	1.0000e-004		0.0407	
Total	1.7200e-003	1.7000e-004	0.0180	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0381	0.0381	1.0000e-004		0.0407	

7.0 Water Detail**7.1 Mitigation Measures Water****8.0 Waste Detail****8.1 Mitigation Measures Waste****9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Off-Highway Trucks	1	6.00	260	402	0.38	Diesel

Seville 4 Solar Project - HSAT - Imperial County, Summer

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Equipment Type	lb/day											lb/day					
Off-Highway Trucks	0.5800	6.2438	3.1512	9.9100e-003		0.2279	0.2279		0.2097	0.2097		997.2121	997.2121	0.3105		1,004.9732	
Total	0.5800	6.2438	3.1512	9.9100e-003		0.2279	0.2279		0.2097	0.2097		997.2121	997.2121	0.3105		1,004.9732	

10.0 Stationary EquipmentFire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

ATTACHMENT B-2
SEVILLE 4 SOLAR PROJECT
FIXED FRAME CONSTRUCTION & OPERATION ACTIVITIES
CalEEMod MODEL OUTPUTS - SUMMER
MODEL "SEVILLE 4 CALEEMOD V04 FF.xls"

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Seville 4 Solar Project - Fixed Frame Array - Imperial County, Summer

Seville 4 Solar Project - Fixed Frame Array
Imperial County, Summer**1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	146.00	User Defined Unit	146.00	6,359,760.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	3.4	Precipitation Freq (Days)	12
Climate Zone	15			Operational Year	2020
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	1270.9	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Summer

Project Characteristics - *

Land Use - Fixed Frame Facility located on up to approximately 146 acres of land

Construction Phase - Anticipated Construction Schedule

Off-road Equipment - 1 grader for 8 hrs; 1 off-highway (water) truck for 8 hrs, 1 roller for 6 hrs

Off-road Equipment - 2 excavators for 6 hrs; 2 graders for 6 hrs; 2 off-highway (water) truck for 7 hrs, 2 rubber tired dozers; 3 scrapers for 6 hrs; 2 skid steer loaders for 6 hrs; 2 tractor/loader/backhoe for 6 hrs

Trips and VMT - Anticipated Worker, Vendor and Haul Truck Trips Included

On-road Fugitive Dust - All public roads traveled to the Project will be paved. Travel on unpaved private road are calculated in a separate workbook

Grading - Approx 438 acres graded total during grading for the Fixed Frame Array

Vehicle Trips - Anticipated Worker, Vendor and Haul Truck Trips Included

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Road Dust -

Consumer Products - None

Area Coating - None

Energy Use - The fixed-frame array would expect to consume 250 kW-hrs of electrical energy daily

Water And Wastewater - 10 acre-feet per year

Construction Off-road Equipment Mitigation - Watering will occur two time per day on exposed areas

Operational Off-Road Equipment - *

Fleet Mix - *

Table Name	Column Name	Default Value	New Value
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstructionPhase	NumDays	310.00	18.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblEnergyUse	T24E	0.00	0.02

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Summer

tblGrading	AcresOfGrading	54.00	438.00
tblLandUse	BuildingSpaceSquareFeet	0.00	6,359,760.00
tblLandUse	LandUseSquareFeet	0.00	6,359,760.00
tblLandUse	LotAcreage	0.00	146.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	6.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblProjectCharacteristics	OperationalYear	2018	2020
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	WorkerTripNumber	38.00	104.00
tblVehicleTrips	CW_TTP	0.00	100.00

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Summer

tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	0.07
tblVehicleTrips	WD_TR	0.00	0.07
tblWater	OutdoorWaterUseRate	0.00	3,258,514.27

2.0 Emissions Summary

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Summer

2.1 Overall Construction (Maximum Daily Emission)**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day												lb/day			
2018	8.3150	87.8457	53.6092	0.1040	35.4699	3.6586	39.1285	7.9204	3.3662	11.2866	0.0000	10,466.01 40	10,466.01 40	3.0652	0.0000	10,542.64 48
Maximum	8.3150	87.8457	53.6092	0.1040	35.4699	3.6586	39.1285	7.9204	3.3662	11.2866	0.0000	10,466.01 40	10,466.01 40	3.0652	0.0000	10,542.64 48

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day												lb/day			
2018	8.3150	87.8457	53.6092	0.1040	16.3087	3.6586	19.9673	3.6569	3.3662	7.0231	0.0000	10,466.01 40	10,466.01 40	3.0652	0.0000	10,542.64 48
Maximum	8.3150	87.8457	53.6092	0.1040	16.3087	3.6586	19.9673	3.6569	3.3662	7.0231	0.0000	10,466.01 40	10,466.01 40	3.0652	0.0000	10,542.64 48

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	54.02	0.00	48.97	53.83	0.00	37.77	0.00	0.00	0.00	0.00	0.00	0.00

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Summer

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.4100e-003	1.4000e-004	0.0150	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0320	0.0320	9.0000e-005			0.0341
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0392	0.2461	0.4343	9.9000e-004	25.5123	8.3000e-004	25.5132	2.5462	7.9000e-004	2.5470	100.6194	100.6194	7.8800e-003			100.8165
Offroad	0.4973	4.7421	2.8576	9.9000e-003		0.1728	0.1728		0.1590	0.1590	958.9665	958.9665	0.3102			966.7202
Total	0.5379	4.9883	3.3068	0.0109	25.5123	0.1737	25.6860	2.5462	0.1598	2.7060	1,059.6179	1,059.6179	0.3181	0.0000	1,067.5708	

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Summer

2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.4100e-003	1.4000e-004	0.0150	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0320	0.0320	9.0000e-005			0.0341
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0392	0.2461	0.4343	9.9000e-004	25.5123	8.3000e-004	25.5132	2.5462	7.9000e-004	2.5470	100.6194	100.6194	7.8800e-003			100.8165
Offroad	0.4973	4.7421	2.8576	9.9000e-003		0.1728	0.1728		0.1590	0.1590	958.9665	958.9665	0.3102			966.7202
Total	0.5379	4.9883	3.3068	0.0109	25.5123	0.1737	25.6860	2.5462	0.1598	2.7060	1,059.6179	1,059.6179	0.3181	0.0000	1,067.5708	

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	4/15/2018	5/5/2018	6	18	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 438

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Summer

Acres of Paving: 0**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	2	6.00	158	0.38
Grading	Graders	2	6.00	187	0.41
Grading	Off-Highway Trucks	2	7.00	402	0.38
Grading	Rubber Tired Dozers	2	6.00	247	0.40
Grading	Scrapers	3	6.00	367	0.48
Grading	Skid Steer Loaders	2	6.00	65	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	15	104.00	6.00	4.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Summer

3.2 Grading - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Fugitive Dust					34.8386	0.0000	34.8386	7.7517	0.0000	7.7517			0.0000			0.0000	
Off-Road	7.4328	86.4391	47.0666	0.0955		3.6472	3.6472		3.3554	3.3554		9,613.154 1	9,613.154 1	2.9927		9,687.971 7	
Total	7.4328	86.4391	47.0666	0.0955	34.8386	3.6472	38.4858	7.7517	3.3554	11.1071		9,613.154 1	9,613.154 1	2.9927		9,687.971 7	

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	1.3400e-003	0.0590	7.3400e-003	1.8000e-004	3.9000e-003	2.2000e-004	4.1200e-003	1.0700e-003	2.1000e-004	1.2800e-003			18.5539	18.5539	7.6000e-004		18.5729
Vendor	0.0349	0.8056	0.2447	1.9800e-003	0.0496	6.9900e-003	0.0566	0.0143	6.6900e-003	0.0210			206.9247	206.9247	0.0119		207.2219
Worker	0.8460	0.5421	6.2906	6.3700e-003	0.5778	4.2300e-003	0.5820	0.1533	3.9000e-003	0.1572			627.3813	627.3813	0.0599		628.8783
Total	0.8823	1.4067	6.5427	8.5300e-003	0.6313	0.0114	0.6427	0.1686	0.0108	0.1794			852.8599	852.8599	0.0725		854.6731

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Summer

3.2 Grading - 2018**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Fugitive Dust					15.6774	0.0000	15.6774	3.4883	0.0000	3.4883			0.0000			0.0000	
Off-Road	7.4328	86.4391	47.0666	0.0955		3.6472	3.6472		3.3554	3.3554	0.0000	9,613.154 1	9,613.154 1	2.9927		9,687.971 7	
Total	7.4328	86.4391	47.0666	0.0955	15.6774	3.6472	19.3246	3.4883	3.3554	6.8437	0.0000	9,613.154 1	9,613.154 1	2.9927		9,687.971 7	

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	1.3400e-003	0.0590	7.3400e-003	1.8000e-004	3.9000e-003	2.2000e-004	4.1200e-003	1.0700e-003	2.1000e-004	1.2800e-003			18.5539	18.5539	7.6000e-004		18.5729
Vendor	0.0349	0.8056	0.2447	1.9800e-003	0.0496	6.9900e-003	0.0566	0.0143	6.6900e-003	0.0210			206.9247	206.9247	0.0119		207.2219
Worker	0.8460	0.5421	6.2906	6.3700e-003	0.5778	4.2300e-003	0.5820	0.1533	3.9000e-003	0.1572			627.3813	627.3813	0.0599		628.8783
Total	0.8823	1.4067	6.5427	8.5300e-003	0.6313	0.0114	0.6427	0.1686	0.0108	0.1794			852.8599	852.8599	0.0725		854.6731

4.0 Operational Detail - Mobile

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Summer

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0392	0.2461	0.4343	9.9000e-004	25.5123	8.3000e-004	25.5132	2.5462	7.9000e-004	2.5470	100.6194	100.6194	7.8800e-003			100.8165
Unmitigated	0.0392	0.2461	0.4343	9.9000e-004	25.5123	8.3000e-004	25.5132	2.5462	7.9000e-004	2.5470	100.6194	100.6194	7.8800e-003			100.8165

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated		Mitigated	
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT	Annual VMT	Annual VMT
User Defined Industrial	10.22	10.22	0.00	21,364	21,364	21,364	21,364
Total	10.22	10.22	0.00	21,364	21,364	21,364	21,364

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	6.70	5.00	8.90	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.503420	0.033264	0.160883	0.129541	0.018929	0.005318	0.019165	0.118376	0.003239	0.001168	0.005214	0.000745	0.000738

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Summer

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Summer

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Mitigated	1.4100e-003	1.4000e-004	0.0150	0.0000			5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0320	0.0320	9.0000e-005		0.0341
Unmitigated	1.4100e-003	1.4000e-004	0.0150	0.0000			5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0320	0.0320	9.0000e-005		0.0341

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	lb/day											lb/day					
Architectural Coating	0.0000						0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	
Landscaping	1.4100e-003	1.4000e-004	0.0150	0.0000			5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0320	0.0320	9.0000e-005		0.0341
Total	1.4100e-003	1.4000e-004	0.0150	0.0000			5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0320	0.0320	9.0000e-005		0.0341

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Summer

6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	lb/day										lb/day						
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000	
Landscaping	1.4100e-003	1.4000e-004	0.0150	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0320	0.0320	9.0000e-005		0.0341	
Total	1.4100e-003	1.4000e-004	0.0150	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0320	0.0320	9.0000e-005		0.0341	

7.0 Water Detail**7.1 Mitigation Measures Water****8.0 Waste Detail****8.1 Mitigation Measures Waste****9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Off-Highway Trucks	1	6.00	260	402	0.38	Diesel

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Summer

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Equipment Type	lb/day											lb/day					
Off-Highway Trucks	0.4973	4.7421	2.8576	9.9000e-003		0.1728	0.1728		0.1590	0.1590		958.9665	958.9665	0.3102		966.7202	
Total	0.4973	4.7421	2.8576	9.9000e-003		0.1728	0.1728		0.1590	0.1590		958.9665	958.9665	0.3102		966.7202	

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

ATTACHMENT B-3
SEVILLE 4 SOLAR PROJECT
HSAT CONSTRUCTION & OPERATION ACTIVITIES
CalEEMod MODEL OUTPUTS - WINTER
MODEL "SEVILLE 4 CALEEMOD V04 HSAT.xls"

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Seville 4 Solar Project - HSAT - Imperial County, Winter

Seville 4 Solar Project - HSAT
Imperial County, Winter

1.0 Project Characteristics**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	174.00	User Defined Unit	174.00	7,579,440.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	3.4	Precipitation Freq (Days)	12
Climate Zone	15			Operational Year	2018
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	1270.9	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - *

Land Use - HSAT Facility located on up to approximately 174 acres of land

Construction Phase - Anticipated Construction Schedule

Off-road Equipment - 1 grader for 8 hrs; 1 off-highway (water) truck for 8 hrs, 1 roller for 6 hrs

Off-road Equipment - *

Off-road Equipment - 3 aerial lifts for 4 hrs; 2 crawler tractors for 4 hrs; 1 other general industrial equipment for 8 hrs

Off-road Equipment - 2 excavators for 6 hrs; 2 graders for 6 hrs; 2 off-highway (water) truck for 7 hrs, 2 rubber tired dozers; 3 scrapers for 6 hrs; 2 skid steer loaders for 6 hrs; 2 tractor/loader/backhoe for 6 hrs

Off-road Equipment - 1 generator set for 8 hrs; 1 off-highway (water) truck for 6 hrs, 1 other general industrial equipment for 8 hrs; 2 skid steer loaders for 7 hrs

Off-road Equipment - 1 generator set for 8 hrs; 1 off-highway (water) truck for 6 hrs, 6 other general industrial equipment for 6 hrs; 2 skid steer loaders for 7 hrs

Seville 4 Solar Project - HSAT - Imperial County, Winter

Off-road Equipment - 1 generator set for 8 hrs; 1 off-highway (water) truck for 6 hrs, 1 other general industrial equipment for 8 hrs; 2 skid steer loaders for 7 hrs; 2 trenchers for 6 hrs

Off-road Equipment - 2 aerial lifts for 6 hrs; 1 crane for 6 hrs; 1 other general industrial equipment for 8 hrs; 1 tractor/loader/backhoe for 6 hrs

Off-road Equipment - 2 generator set for 8 hrs; 1 off-highway (water) truck for 6 hrs, 1 other general industrial equipment for 8 hrs; 2 skid steer loaders for 7 hrs; 2 trenchers for 6 hrs

Trips and VMT - Anticipated Worker, Vendor and Haul Truck Trips Included

On-road Fugitive Dust - All public roads traveled to the Project will be paved. Travel on unpaved private road are calculated in a separate workbook

Grading - Approx 10 acres graded total during access road construction; Approx 522 acres graded total during grading for the HSAT Facility

Vehicle Trips - Anticipated Worker, Vendor and Haul Truck Trips Included

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Road Dust -

Consumer Products - None

Area Coating - None

Energy Use - The Project would consume an estimated 300 kW-hrs of electrical energy daily;

Water And Wastewater - 10 acre-feet per year

Construction Off-road Equipment Mitigation - Watering will occur two time per day on exposed areas

Operational Off-Road Equipment - *

Fleet Mix - *

Table Name	Column Name	Default Value	New Value
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstructionPhase	NumDays	3,100.00	60.00
tblConstructionPhase	NumDays	3,100.00	24.00
tblConstructionPhase	NumDays	3,100.00	48.00
tblConstructionPhase	NumDays	3,100.00	60.00
tblConstructionPhase	NumDays	3,100.00	42.00

Seville 4 Solar Project - HSAT - Imperial County, Winter

tblConstructionPhase	NumDays	3,100.00	30.00
tblConstructionPhase	NumDays	310.00	12.00
tblConstructionPhase	NumDays	310.00	18.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblEnergyUse	T24E	0.00	0.02
tblGrading	AcresOfGrading	6.00	10.00
tblGrading	AcresOfGrading	54.00	522.00
tblLandUse	BuildingSpaceSquareFeet	0.00	7,579,440.00
tblLandUse	LandUseSquareFeet	0.00	7,579,440.00
tblLandUse	LotAcreage	0.00	174.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00

Seville 4 Solar Project - HSAT - Imperial County, Winter

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	PhaseName		Access Road Construction
tblOffRoadEquipment	PhaseName		Access Road Construction

Seville 4 Solar Project - HSAT - Imperial County, Winter

tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00

Seville 4 Solar Project - HSAT - Imperial County, Winter

tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	6.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripNumber	0.00	12.00
tblTripsAndVMT	HaulingTripNumber	0.00	4.00
tblTripsAndVMT	HaulingTripNumber	0.00	10.00
tblTripsAndVMT	HaulingTripNumber	0.00	4.00
tblTripsAndVMT	HaulingTripNumber	0.00	10.00
tblTripsAndVMT	HaulingTripNumber	0.00	10.00
tblTripsAndVMT	HaulingTripNumber	0.00	16.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	1,242.00	0.00
tblTripsAndVMT	VendorTripNumber	1,242.00	2.00
tblTripsAndVMT	VendorTripNumber	1,242.00	0.00
tblTripsAndVMT	VendorTripNumber	1,242.00	0.00
tblTripsAndVMT	VendorTripNumber	1,242.00	0.00
tblTripsAndVMT	VendorTripNumber	1,242.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	12.00
tblTripsAndVMT	WorkerTripNumber	38.00	104.00
tblTripsAndVMT	WorkerTripNumber	3,183.00	112.00
tblTripsAndVMT	WorkerTripNumber	3,183.00	16.00
tblTripsAndVMT	WorkerTripNumber	3,183.00	16.00
tblTripsAndVMT	WorkerTripNumber	3,183.00	112.00

Seville 4 Solar Project - HSAT - Imperial County, Winter

tblTripsAndVMT	WorkerTripNumber	3,183.00	32.00
tblTripsAndVMT	WorkerTripNumber	3,183.00	32.00
tblVehicleTrips	CW_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	0.06
tblVehicleTrips	WD_TR	0.00	0.06
tblWater	OutdoorWaterUseRate	0.00	3,258,514.27

2.0 Emissions Summary

Seville 4 Solar Project - HSAT - Imperial County, Winter

2.1 Overall Construction (Maximum Daily Emission)**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day												lb/day			
2018	10.2727	87.8986	72.8148	0.1198	40.4189	4.9241	44.0776	8.4548	4.6141	11.8210	0.0000	11,879.77 35	11,879.77 35	3.0550	0.0000	11,949.42 47
Maximum	10.2727	87.8986	72.8148	0.1198	40.4189	4.9241	44.0776	8.4548	4.6141	11.8210	0.0000	11,879.77 35	11,879.77 35	3.0550	0.0000	11,949.42 47

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day												lb/day			
2018	10.2727	87.8986	72.8148	0.1198	18.5357	4.9241	22.1944	3.8974	4.6141	7.2637	0.0000	11,879.77 34	11,879.77 34	3.0550	0.0000	11,949.42 47
Maximum	10.2727	87.8986	72.8148	0.1198	18.5357	4.9241	22.1944	3.8974	4.6141	7.2637	0.0000	11,879.77 34	11,879.77 34	3.0550	0.0000	11,949.42 47

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	54.14	0.00	49.65	53.90	0.00	38.55	0.00	0.00	0.00	0.00	0.00	0.00

Seville 4 Solar Project - HSAT - Imperial County, Winter

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.7200e-003	1.7000e-004	0.0180	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0381	0.0381	1.0000e-004			0.0407
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0354	0.2812	0.4131	9.3000e-004	26.0615	1.1200e-003	26.0626	2.6011	1.0600e-003	2.6021	94.6676	94.6676	8.5300e-003			94.8810
Offroad	0.5800	6.2438	3.1512	9.9100e-003		0.2279	0.2279		0.2097	0.2097	997.2121	997.2121	0.3105			1,004.9732
Total	0.6172	6.5251	3.5823	0.0108	26.0615	0.2291	26.2906	2.6011	0.2108	2.8118	1,091.9178	1,091.9178	0.3191	0.0000	1,099.8949	

Seville 4 Solar Project - HSAT - Imperial County, Winter

2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.7200e-003	1.7000e-004	0.0180	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0381	0.0381	1.0000e-004			0.0407
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0354	0.2812	0.4131	9.3000e-004	26.0615	1.1200e-003	26.0626	2.6011	1.0600e-003	2.6021	94.6676	94.6676	8.5300e-003			94.8810
Offroad	0.5800	6.2438	3.1512	9.9100e-003		0.2279	0.2279		0.2097	0.2097	997.2121	997.2121	0.3105			1,004.9732
Total	0.6172	6.5251	3.5823	0.0108	26.0615	0.2291	26.2906	2.6011	0.2108	2.8118	1,091.9178	1,091.9178	0.3191	0.0000	1,099.8949	

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Seville 4 Solar Project - HSAT - Imperial County, Winter

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Access Road Construction	Grading	4/1/2018	4/14/2018	6	12	
2	Grading	Grading	4/15/2018	5/5/2018	6	18	
3	Rack Installation	Building Construction	5/6/2018	7/14/2018	6	60	
4	GenTie Line Construction	Building Construction	6/11/2018	7/8/2018	6	24	
5	Substation Construction	Building Construction	6/11/2018	8/5/2018	6	48	
6	Solar Panel Installation	Building Construction	6/11/2018	8/19/2018	6	60	
7	System Wiring and Trenching	Building Construction	7/9/2018	8/26/2018	6	42	
8	Inverter Installation	Building Construction	8/6/2018	9/9/2018	6	30	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 522

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Access Road Construction	Excavators	0	8.00	158	0.38
Access Road Construction	Graders	1	8.00	187	0.41
Access Road Construction	Off-Highway Trucks	1	8.00	402	0.38
Access Road Construction	Rollers	1	6.00	80	0.38
Access Road Construction	Rubber Tired Dozers	0	8.00	247	0.40
Access Road Construction	Scrapers	0	8.00	367	0.48
Access Road Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Excavators	2	6.00	158	0.38

Seville 4 Solar Project - HSAT - Imperial County, Winter

Grading	Graders	2	6.00	187	0.41
Grading	Off-Highway Trucks	2	7.00	402	0.38
Grading	Rubber Tired Dozers	2	6.00	247	0.40
Grading	Scrapers	3	6.00	367	0.48
Grading	Skid Steer Loaders	2	6.00	65	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Rack Installation	Cranes	0	7.00	231	0.29
Rack Installation	Forklifts	0	8.00	89	0.20
Rack Installation	Generator Sets	1	8.00	84	0.74
Rack Installation	Off-Highway Trucks	1	6.00	402	0.38
Rack Installation	Other General Industrial Equipment	6	6.00	88	0.34
Rack Installation	Skid Steer Loaders	2	7.00	65	0.37
Rack Installation	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Rack Installation	Welders	0	8.00	46	0.45
GenTie Line Construction	Aerial Lifts	3	4.00	63	0.31
GenTie Line Construction	Cranes	0	7.00	231	0.29
GenTie Line Construction	Crawler Tractors	2	4.00	212	0.43
GenTie Line Construction	Forklifts	0	8.00	89	0.20
GenTie Line Construction	Generator Sets	0	8.00	84	0.74
GenTie Line Construction	Other General Industrial Equipment	1	8.00	88	0.34
GenTie Line Construction	Tractors/Loaders/Backhoes	0	7.00	97	0.37
GenTie Line Construction	Welders	0	8.00	46	0.45
Substation Construction	Aerial Lifts	2	6.00	63	0.31
Substation Construction	Cranes	1	6.00	231	0.29
Substation Construction	Forklifts	0	8.00	89	0.20
Substation Construction	Generator Sets	0	8.00	84	0.74
Substation Construction	Other General Industrial Equipment	1	8.00	88	0.34

Seville 4 Solar Project - HSAT - Imperial County, Winter

Substation Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Substation Construction	Welders	0	8.00	46	0.45
Solar Panel Installation	Cranes	0	7.00	231	0.29
Solar Panel Installation	Forklifts	0	8.00	89	0.20
Solar Panel Installation	Generator Sets	1	8.00	84	0.74
Solar Panel Installation	Off-Highway Trucks	1	6.00	402	0.38
Solar Panel Installation	Other General Industrial Equipment	1	8.00	88	0.34
Solar Panel Installation	Skid Steer Loaders	2	7.00	65	0.37
Solar Panel Installation	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Solar Panel Installation	Trenchers	2	6.00	78	0.50
Solar Panel Installation	Welders	0	8.00	46	0.45
System Wiring and Trenching	Cranes	0	7.00	231	0.29
System Wiring and Trenching	Forklifts	0	8.00	89	0.20
System Wiring and Trenching	Generator Sets	2	8.00	84	0.74
System Wiring and Trenching	Off-Highway Trucks	1	6.00	402	0.38
System Wiring and Trenching	Other General Industrial Equipment	1	8.00	88	0.34
System Wiring and Trenching	Skid Steer Loaders	2	7.00	65	0.37
System Wiring and Trenching	Tractors/Loaders/Backhoes	0	7.00	97	0.37
System Wiring and Trenching	Trenchers	2	6.00	78	0.50
System Wiring and Trenching	Welders	0	8.00	46	0.45
Inverter Installation	Cranes	0	7.00	231	0.29
Inverter Installation	Forklifts	0	8.00	89	0.20
Inverter Installation	Generator Sets	1	8.00	84	0.74
Inverter Installation	Off-Highway Trucks	1	6.00	402	0.38
Inverter Installation	Other General Industrial Equipment	1	8.00	88	0.34
Inverter Installation	Skid Steer Loaders	2	7.00	65	0.37
Inverter Installation	Tractors/Loaders/Backhoes	0	7.00	97	0.37

Seville 4 Solar Project - HSAT - Imperial County, Winter

Inverter Installation	Welders		0	8.00	46	0.45
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Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Access Road Construction	3	12.00	0.00	12.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	15	104.00	6.00	4.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
Rack Installation	10	112.00	0.00	10.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
GenTie Line Construction	6	16.00	2.00	0.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
Substation Construction	5	16.00	0.00	4.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
Solar Panel Installation	7	112.00	0.00	10.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
System Wiring and Trenching	8	32.00	0.00	10.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
Inverter Installation	5	32.00	0.00	16.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

Seville 4 Solar Project - HSAT - Imperial County, Winter

3.2 Access Road Construction - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Fugitive Dust					0.8838	0.0000	0.8838	0.0954	0.0000	0.0954			0.0000			0.0000	
Off-Road	1.4865	17.3226	7.5679	0.0218		0.6643	0.6643		0.6111	0.6111		2,197.481 2	2,197.481 2	0.6841		2,214.583 8	
Total	1.4865	17.3226	7.5679	0.0218	0.8838	0.6643	1.5480	0.0954	0.6111	0.7065		2,197.481 2	2,197.481 2	0.6841		2,214.583 8	

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	6.4000e-003	0.2745	0.0397	7.7000e-004	0.0175	1.0200e-003	0.0186	4.8100e-003	9.8000e-004	5.7800e-003		81.0861	81.0861	3.8300e-003		81.1818	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000	
Worker	0.0782	0.0658	0.5498	6.2000e-004	0.0667	4.9000e-004	0.0672	0.0177	4.5000e-004	0.0181		60.7415	60.7415	5.5800e-003		60.8809	
Total	0.0846	0.3403	0.5894	1.3900e-003	0.0842	1.5100e-003	0.0857	0.0225	1.4300e-003	0.0239		141.8277	141.8277	9.4100e-003		142.0628	

Seville 4 Solar Project - HSAT - Imperial County, Winter

3.2 Access Road Construction - 2018**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Fugitive Dust					0.3977	0.0000	0.3977	0.0429	0.0000	0.0429			0.0000			0.0000	
Off-Road	1.4865	17.3226	7.5679	0.0218		0.6643	0.6643		0.6111	0.6111	0.0000	2,197.481 2	2,197.481 2	0.6841		2,214.583 8	
Total	1.4865	17.3226	7.5679	0.0218	0.3977	0.6643	1.0619	0.0429	0.6111	0.6541	0.0000	2,197.481 2	2,197.481 2	0.6841		2,214.583 8	

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	6.4000e-003	0.2745	0.0397	7.7000e-004	0.0175	1.0200e-003	0.0186	4.8100e-003	9.8000e-004	5.7800e-003	81.0861	81.0861	3.8300e-003			81.1818	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0782	0.0658	0.5498	6.2000e-004	0.0667	4.9000e-004	0.0672	0.0177	4.5000e-004	0.0181	60.7415	60.7415	5.5800e-003			60.8809	
Total	0.0846	0.3403	0.5894	1.3900e-003	0.0842	1.5100e-003	0.0857	0.0225	1.4300e-003	0.0239		141.8277	141.8277	9.4100e-003		142.0628	

Seville 4 Solar Project - HSAT - Imperial County, Winter

3.3 Grading - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Fugitive Dust					39.7876	0.0000	39.7876	8.2861	0.0000	8.2861			0.0000			0.0000	
Off-Road	7.4328	86.4391	47.0666	0.0955		3.6472	3.6472		3.3554	3.3554		9,613.154 1	9,613.154 1	2.9927		9,687.971 7	
Total	7.4328	86.4391	47.0666	0.0955	39.7876	3.6472	43.4348	8.2861	3.3554	11.6415		9,613.154 1	9,613.154 1	2.9927		9,687.971 7	

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	1.4200e-003	0.0610	8.8100e-003	1.7000e-004	3.9000e-003	2.3000e-004	4.1200e-003	1.0700e-003	2.2000e-004	1.2900e-003		18.0191	18.0191	8.5000e-004		18.0404	
Vendor	0.0359	0.8282	0.2721	1.9100e-003	0.0496	7.0700e-003	0.0566	0.0143	6.7700e-003	0.0210		199.5774	199.5774	0.0131		199.9055	
Worker	0.6776	0.5704	4.7646	5.3400e-003	0.5778	4.2300e-003	0.5820	0.1533	3.9000e-003	0.1572		526.4264	526.4264	0.0483		527.6347	
Total	0.7149	1.4595	5.0456	7.4200e-003	0.6313	0.0115	0.6428	0.1686	0.0109	0.1795		744.0230	744.0230	0.0623		745.5806	

Seville 4 Solar Project - HSAT - Imperial County, Winter

3.3 Grading - 2018**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Fugitive Dust					17.9044	0.0000	17.9044	3.7288	0.0000	3.7288			0.0000			0.0000	
Off-Road	7.4328	86.4391	47.0666	0.0955		3.6472	3.6472		3.3554	3.3554	0.0000	9,613.154 1	9,613.154 1	2.9927		9,687.971 7	
Total	7.4328	86.4391	47.0666	0.0955	17.9044	3.6472	21.5516	3.7288	3.3554	7.0841	0.0000	9,613.154 1	9,613.154 1	2.9927		9,687.971 7	

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	1.4200e-003	0.0610	8.8100e-003	1.7000e-004	3.9000e-003	2.3000e-004	4.1200e-003	1.0700e-003	2.2000e-004	1.2900e-003			18.0191	18.0191	8.5000e-004		18.0404
Vendor	0.0359	0.8282	0.2721	1.9100e-003	0.0496	7.0700e-003	0.0566	0.0143	6.7700e-003	0.0210			199.5774	199.5774	0.0131		199.9055
Worker	0.6776	0.5704	4.7646	5.3400e-003	0.5778	4.2300e-003	0.5820	0.1533	3.9000e-003	0.1572			526.4264	526.4264	0.0483		527.6347
Total	0.7149	1.4595	5.0456	7.4200e-003	0.6313	0.0115	0.6428	0.1686	0.0109	0.1795			744.0230	744.0230	0.0623		745.5806

Seville 4 Solar Project - HSAT - Imperial County, Winter

3.4 Rack Installation - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Off-Road	2.5690	24.2454	18.5396	0.0316		1.5238	1.5238		1.4229	1.4229		3,143.526 2	3,143.526 2	0.8296		3,164.266 5	
Total	2.5690	24.2454	18.5396	0.0316		1.5238	1.5238		1.4229	1.4229		3,143.526 2	3,143.526 2	0.8296		3,164.266 5	

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	1.0700e-003	0.0458	6.6100e-003	1.3000e-004	2.9200e-003	1.7000e-004	3.0900e-003	8.0000e-004	1.6000e-004	9.6000e-004			13.5144	13.5144	6.4000e-004		13.5303
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000		0.0000
Worker	0.7297	0.6142	5.1311	5.7500e-003	0.6223	4.5500e-003	0.6268	0.1651	4.2000e-003	0.1693			566.9208	566.9208	0.0521		568.2219
Total	0.7308	0.6600	5.1378	5.8800e-003	0.6252	4.7200e-003	0.6299	0.1659	4.3600e-003	0.1703			580.4352	580.4352	0.0527		581.7523

Seville 4 Solar Project - HSAT - Imperial County, Winter

3.4 Rack Installation - 2018**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Off-Road	2.5690	24.2454	18.5396	0.0316		1.5238	1.5238		1.4229	1.4229	0.0000	3,143.526 2	3,143.526 2	0.8296		3,164.266 5	
Total	2.5690	24.2454	18.5396	0.0316		1.5238	1.5238		1.4229	1.4229	0.0000	3,143.526 2	3,143.526 2	0.8296		3,164.266 5	

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	1.0700e-003	0.0458	6.6100e-003	1.3000e-004	2.9200e-003	1.7000e-004	3.0900e-003	8.0000e-004	1.6000e-004	9.6000e-004			13.5144	13.5144	6.4000e-004		13.5303
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000		0.0000
Worker	0.7297	0.6142	5.1311	5.7500e-003	0.6223	4.5500e-003	0.6268	0.1651	4.2000e-003	0.1693			566.9208	566.9208	0.0521		568.2219
Total	0.7308	0.6600	5.1378	5.8800e-003	0.6252	4.7200e-003	0.6299	0.1659	4.3600e-003	0.1703			580.4352	580.4352	0.0527		581.7523

Seville 4 Solar Project - HSAT - Imperial County, Winter

3.5 GenTie Line Construction - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day												lb/day			
Off-Road	0.9974	12.1853	6.3403	0.0129		0.5579	0.5579		0.5133	0.5133	1,301.477 1	1,301.477 1	0.4052		1,311.606 3	
Total	0.9974	12.1853	6.3403	0.0129		0.5579	0.5579		0.5133	0.5133	1,301.477 1	1,301.477 1	0.4052		1,311.606 3	

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day												lb/day			
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0120	0.2761	0.0907	6.4000e-004	0.0165	2.3600e-003	0.0189	4.7600e-003	2.2600e-003	7.0100e-003	66.5258	66.5258	4.3700e-003		66.6352	
Worker	0.1042	0.0878	0.7330	8.2000e-004	0.0889	6.5000e-004	0.0895	0.0236	6.0000e-004	0.0242	80.9887	80.9887	7.4400e-003		81.1746	
Total	0.1162	0.3638	0.8237	1.4600e-003	0.1054	3.0100e-003	0.1084	0.0284	2.8600e-003	0.0312	147.5145	147.5145	0.0118		147.8097	

Seville 4 Solar Project - HSAT - Imperial County, Winter

3.5 GenTie Line Construction - 2018**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9974	12.1853	6.3403	0.0129		0.5579	0.5579		0.5133	0.5133	0.0000	1,301.477 1	1,301.477 1	0.4052		1,311.606 3
Total	0.9974	12.1853	6.3403	0.0129		0.5579	0.5579		0.5133	0.5133	0.0000	1,301.477 1	1,301.477 1	0.4052		1,311.606 3

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0120	0.2761	0.0907	6.4000e-004	0.0165	2.3600e-003	0.0189	4.7600e-003	2.2600e-003	7.0100e-003	66.5258	66.5258	4.3700e-003			66.6352
Worker	0.1042	0.0878	0.7330	8.2000e-004	0.0889	6.5000e-004	0.0895	0.0236	6.0000e-004	0.0242	80.9887	80.9887	7.4400e-003			81.1746
Total	0.1162	0.3638	0.8237	1.4600e-003	0.1054	3.0100e-003	0.1084	0.0284	2.8600e-003	0.0312		147.5145	147.5145	0.0118		147.8097

Seville 4 Solar Project - HSAT - Imperial County, Winter

3.6 Substation Construction - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Off-Road	0.9847	10.7686	7.3257	0.0117		0.5973	0.5973		0.5495	0.5495	1,181.109 7	1,181.109 7	0.3677			1,190.302 0	
Total	0.9847	10.7686	7.3257	0.0117		0.5973	0.5973		0.5495	0.5495		1,181.109 7	1,181.109 7	0.3677			1,190.302 0

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	5.3000e-004	0.0229	3.3100e-003	6.0000e-005	1.4600e-003	8.0000e-005	1.5500e-003	4.0000e-004	8.0000e-005	4.8000e-004	6.7572	6.7572	3.2000e-004			6.7652	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.1042	0.0878	0.7330	8.2000e-004	0.0889	6.5000e-004	0.0895	0.0236	6.0000e-004	0.0242	80.9887	80.9887	7.4400e-003			81.1746	
Total	0.1048	0.1106	0.7363	8.8000e-004	0.0904	7.3000e-004	0.0911	0.0240	6.8000e-004	0.0247		87.7459	87.7459	7.7600e-003			87.9397

Seville 4 Solar Project - HSAT - Imperial County, Winter

3.6 Substation Construction - 2018**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9847	10.7686	7.3257	0.0117		0.5973	0.5973		0.5495	0.5495	0.0000	1,181.109 7	1,181.109 7	0.3677		1,190.302 0
Total	0.9847	10.7686	7.3257	0.0117		0.5973	0.5973		0.5495	0.5495	0.0000	1,181.109 7	1,181.109 7	0.3677		1,190.302 0

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.3000e-004	0.0229	3.3100e-003	6.0000e-005	1.4600e-003	8.0000e-005	1.5500e-003	4.0000e-004	8.0000e-005	4.8000e-004	6.7572	6.7572	3.2000e-004			6.7652
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.1042	0.0878	0.7330	8.2000e-004	0.0889	6.5000e-004	0.0895	0.0236	6.0000e-004	0.0242	80.9887	80.9887	7.4400e-003			81.1746
Total	0.1048	0.1106	0.7363	8.8000e-004	0.0904	7.3000e-004	0.0911	0.0240	6.8000e-004	0.0247	87.7459	87.7459	7.7600e-003			87.9397

Seville 4 Solar Project - HSAT - Imperial County, Winter

3.7 Solar Panel Installation - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Off-Road	2.2187	21.1978	15.3575	0.0277		1.2646	1.2646		1.1844	1.1844		2,751.101	2,751.101	0.7075		2,768.787	
Total	2.2187	21.1978	15.3575	0.0277		1.2646	1.2646		1.1844	1.1844		2,751.101	2,751.101	0.7075		2,768.787	

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	1.0700e-003	0.0458	6.6100e-003	1.3000e-004	2.9200e-003	1.7000e-004	3.0900e-003	8.0000e-004	1.6000e-004	9.6000e-004			13.5144	13.5144	6.4000e-004		13.5303
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000		0.0000
Worker	0.7297	0.6142	5.1311	5.7500e-003	0.6223	4.5500e-003	0.6268	0.1651	4.2000e-003	0.1693			566.9208	566.9208	0.0521		568.2219
Total	0.7308	0.6600	5.1378	5.8800e-003	0.6252	4.7200e-003	0.6299	0.1659	4.3600e-003	0.1703			580.4352	580.4352	0.0527		581.7523

Seville 4 Solar Project - HSAT - Imperial County, Winter

3.7 Solar Panel Installation - 2018**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Off-Road	2.2187	21.1978	15.3575	0.0277		1.2646	1.2646		1.1844	1.1844	0.0000	2,751.101	2,751.101	0.7075		2,768.787	
Total	2.2187	21.1978	15.3575	0.0277		1.2646	1.2646		1.1844	1.1844	0.0000	2,751.101	2,751.101	0.7075		2,768.787	

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	1.0700e-003	0.0458	6.6100e-003	1.3000e-004	2.9200e-003	1.7000e-004	3.0900e-003	8.0000e-004	1.6000e-004	9.6000e-004			13.5144	13.5144	6.4000e-004		13.5303
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000		0.0000
Worker	0.7297	0.6142	5.1311	5.7500e-003	0.6223	4.5500e-003	0.6268	0.1651	4.2000e-003	0.1693			566.9208	566.9208	0.0521		568.2219
Total	0.7308	0.6600	5.1378	5.8800e-003	0.6252	4.7200e-003	0.6299	0.1659	4.3600e-003	0.1703			580.4352	580.4352	0.0527		581.7523

Seville 4 Solar Project - HSAT - Imperial County, Winter

3.8 System Wiring and Trenching - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.7241	25.3111	19.1047	0.0343		1.5266	1.5266		1.4464	1.4464	3,374.136 2	3,374.136 2	0.7524			3,392.946 1
Total	2.7241	25.3111	19.1047	0.0343		1.5266	1.5266		1.4464	1.4464	3,374.136 2	3,374.136 2	0.7524			3,392.946 1

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.5200e-003	0.0654	9.4400e-003	1.8000e-004	4.1700e-003	2.4000e-004	4.4200e-003	1.1500e-003	2.3000e-004	1.3800e-003	19.3062	19.3062	9.1000e-004			19.3290
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.2085	0.1755	1.4660	1.6400e-003	0.1778	1.3000e-003	0.1791	0.0472	1.2000e-003	0.0484	161.9774	161.9774	0.0149			162.3491
Total	0.2100	0.2409	1.4755	1.8200e-003	0.1820	1.5400e-003	0.1835	0.0483	1.4300e-003	0.0498	181.2836	181.2836	0.0158			181.6781

Seville 4 Solar Project - HSAT - Imperial County, Winter

3.8 System Wiring and Trenching - 2018**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day												lb/day			
Off-Road	2.7241	25.3111	19.1047	0.0343		1.5266	1.5266		1.4464	1.4464	0.0000	3,374.1362	3,374.1362	0.7524		3,392.9461
Total	2.7241	25.3111	19.1047	0.0343		1.5266	1.5266		1.4464	1.4464	0.0000	3,374.1362	3,374.1362	0.7524		3,392.9461

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day												lb/day				
Hauling	1.5200e-003	0.0654	9.4400e-003	1.8000e-004	4.1700e-003	2.4000e-004	4.4200e-003	1.1500e-003	2.3000e-004	1.3800e-003			19.3062	19.3062	9.1000e-004		19.3290
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000		0.0000
Worker	0.2085	0.1755	1.4660	1.6400e-003	0.1778	1.3000e-003	0.1791	0.0472	1.2000e-003	0.0484			161.9774	161.9774	0.0149		162.3491
Total	0.2100	0.2409	1.4755	1.8200e-003	0.1820	1.5400e-003	0.1835	0.0483	1.4300e-003	0.0498			181.2836	181.2836	0.0158		181.6781

Seville 4 Solar Project - HSAT - Imperial County, Winter

3.9 Inverter Installation - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5397	15.0946	11.3802	0.0227		0.8004	0.8004		0.7573	0.7573	2,241.704 6	2,241.704 6	0.5489			2,255.426 2
Total	1.5397	15.0946	11.3802	0.0227		0.8004	0.8004		0.7573	0.7573	2,241.704 6	2,241.704 6	0.5489			2,255.426 2

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.4100e-003	0.1464	0.0212	4.1000e-004	9.3500e-003	5.4000e-004	9.8900e-003	2.5600e-003	5.2000e-004	3.0800e-003	43.2459	43.2459	2.0400e-003			43.2970
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.2085	0.1755	1.4660	1.6400e-003	0.1778	1.3000e-003	0.1791	0.0472	1.2000e-003	0.0484	161.9774	161.9774	0.0149			162.3491
Total	0.2119	0.3219	1.4872	2.0500e-003	0.1871	1.8400e-003	0.1890	0.0497	1.7200e-003	0.0515	205.2233	205.2233	0.0169			205.6461

Seville 4 Solar Project - HSAT - Imperial County, Winter

3.9 Inverter Installation - 2018**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5397	15.0946	11.3802	0.0227		0.8004	0.8004		0.7573	0.7573	0.0000	2,241.704	2,241.704	0.5489		2,255.426
Total	1.5397	15.0946	11.3802	0.0227		0.8004	0.8004		0.7573	0.7573	0.0000	2,241.704	2,241.704	0.5489		2,255.426

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.4100e-003	0.1464	0.0212	4.1000e-004	9.3500e-003	5.4000e-004	9.8900e-003	2.5600e-003	5.2000e-004	3.0800e-003	43.2459	43.2459	2.0400e-003			43.2970
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.2085	0.1755	1.4660	1.6400e-003	0.1778	1.3000e-003	0.1791	0.0472	1.2000e-003	0.0484	161.9774	161.9774	0.0149			162.3491
Total	0.2119	0.3219	1.4872	2.0500e-003	0.1871	1.8400e-003	0.1890	0.0497	1.7200e-003	0.0515		205.2233	205.2233	0.0169		205.6461

4.0 Operational Detail - Mobile

Seville 4 Solar Project - HSAT - Imperial County, Winter

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Mitigated	0.0354	0.2812	0.4131	9.3000e-004	26.0615	1.1200e-003	26.0626	2.6011	1.0600e-003	2.6021	94.6676	94.6676	8.5300e-003			94.8810	
Unmitigated	0.0354	0.2812	0.4131	9.3000e-004	26.0615	1.1200e-003	26.0626	2.6011	1.0600e-003	2.6021	94.6676	94.6676	8.5300e-003			94.8810	

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated		Mitigated	
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT	Annual VMT	Annual VMT
User Defined Industrial	10.44	10.44	0.00	21,824	21,824	21,824	21,824
Total	10.44	10.44	0.00	21,824	21,824	21,824	21,824

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	6.70	5.00	8.90	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.489745	0.035508	0.162111	0.141569	0.021911	0.005773	0.018523	0.113979	0.002979	0.001120	0.005181	0.000766	0.000834

Seville 4 Solar Project - HSAT - Imperial County, Winter

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Seville 4 Solar Project - HSAT - Imperial County, Winter

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

Seville 4 Solar Project - HSAT - Imperial County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.7200e-003	1.7000e-004	0.0180	0.0000			6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0381	0.0381	1.0000e-004		0.0407
Unmitigated	1.7200e-003	1.7000e-004	0.0180	0.0000			6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0381	0.0381	1.0000e-004		0.0407

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	lb/day										lb/day						
Architectural Coating	0.0000						0.0000	0.0000		0.0000	0.0000			0.0000		0.0000	
Landscaping	1.7200e-003	1.7000e-004	0.0180	0.0000			6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0381	0.0381	1.0000e-004		0.0407	
Total	1.7200e-003	1.7000e-004	0.0180	0.0000			6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0381	0.0381	1.0000e-004		0.0407

Seville 4 Solar Project - HSAT - Imperial County, Winter

6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	lb/day										lb/day						
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000	
Landscaping	1.7200e-003	1.7000e-004	0.0180	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0381	0.0381	1.0000e-004		0.0407	
Total	1.7200e-003	1.7000e-004	0.0180	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0381	0.0381	1.0000e-004		0.0407	

7.0 Water Detail**7.1 Mitigation Measures Water****8.0 Waste Detail****8.1 Mitigation Measures Waste****9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Off-Highway Trucks	1	6.00	260	402	0.38	Diesel

Seville 4 Solar Project - HSAT - Imperial County, Winter

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Equipment Type	lb/day											lb/day					
Off-Highway Trucks	0.5800	6.2438	3.1512	9.9100e-003		0.2279	0.2279		0.2097	0.2097		997.2121	997.2121	0.3105		1,004.9732	
Total	0.5800	6.2438	3.1512	9.9100e-003		0.2279	0.2279		0.2097	0.2097		997.2121	997.2121	0.3105		1,004.9732	

10.0 Stationary EquipmentFire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

ATTACHMENT B-4
SEVILLE 4 SOLAR PROJECT
FIXED FRAME CONSTRUCTION & OPERATION ACTIVITIES
CalEEMod MODEL OUTPUTS - WINTER
MODEL "SEVILLE 4 CALEEMOD V04 FF.xls"

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Seville 4 Solar Project - Fixed Frame Array - Imperial County, Winter

Seville 4 Solar Project - Fixed Frame Array
Imperial County, Winter**1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	146.00	User Defined Unit	146.00	6,359,760.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	3.4	Precipitation Freq (Days)	12
Climate Zone	15			Operational Year	2020
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	1270.9	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Winter

Project Characteristics - *

Land Use - Fixed Frame Facility located on up to approximately 146 acres of land

Construction Phase - Anticipated Construction Schedule

Off-road Equipment - 1 grader for 8 hrs; 1 off-highway (water) truck for 8 hrs, 1 roller for 6 hrs

Off-road Equipment - 2 excavators for 6 hrs; 2 graders for 6 hrs; 2 off-highway (water) truck for 7 hrs, 2 rubber tired dozers; 3 scrapers for 6 hrs; 2 skid steer loaders for 6 hrs; 2 tractor/loader/backhoe for 6 hrs

Trips and VMT - Anticipated Worker, Vendor and Haul Truck Trips Included

On-road Fugitive Dust - All public roads traveled to the Project will be paved. Travel on unpaved private road are calculated in a separate workbook

Grading - Approx 438 acres graded total during grading for the Fixed Frame Array

Vehicle Trips - Anticipated Worker, Vendor and Haul Truck Trips Included

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Road Dust -

Consumer Products - None

Area Coating - None

Energy Use - The fixed-frame array would expect to consume 250 kW-hrs of electrical energy daily

Water And Wastewater - 10 acre-feet per year

Construction Off-road Equipment Mitigation - Watering will occur two time per day on exposed areas

Operational Off-Road Equipment - *

Fleet Mix - *

Table Name	Column Name	Default Value	New Value
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstructionPhase	NumDays	310.00	18.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblEnergyUse	T24E	0.00	0.02

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Winter

tblGrading	AcresOfGrading	54.00	438.00
tblLandUse	BuildingSpaceSquareFeet	0.00	6,359,760.00
tblLandUse	LandUseSquareFeet	0.00	6,359,760.00
tblLandUse	LotAcreage	0.00	146.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	6.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblProjectCharacteristics	OperationalYear	2018	2020
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	WorkerTripNumber	38.00	104.00
tblVehicleTrips	CW_TTP	0.00	100.00

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Winter

tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	0.07
tblVehicleTrips	WD_TR	0.00	0.07
tblWater	OutdoorWaterUseRate	0.00	3,258,514.27

2.0 Emissions Summary

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Winter

2.1 Overall Construction (Maximum Daily Emission)**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Year	lb/day															lb/day	
2018	8.1477	87.8986	52.1121	0.1029	35.4699	3.6587	39.1286	7.9204	3.3663	11.2867	0.0000	10,357.17 71	10,357.17 71	3.0550	0.0000	10,433.55 23	
Maximum	8.1477	87.8986	52.1121	0.1029	35.4699	3.6587	39.1286	7.9204	3.3663	11.2867	0.0000	10,357.17 71	10,357.17 71	3.0550	0.0000	10,433.55 23	

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Year	lb/day															lb/day	
2018	8.1477	87.8986	52.1121	0.1029	16.3087	3.6587	19.9674	3.6569	3.3663	7.0232	0.0000	10,357.17 71	10,357.17 71	3.0550	0.0000	10,433.55 23	
Maximum	8.1477	87.8986	52.1121	0.1029	16.3087	3.6587	19.9674	3.6569	3.3663	7.0232	0.0000	10,357.17 71	10,357.17 71	3.0550	0.0000	10,433.55 23	

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	54.02	0.00	48.97	53.83	0.00	37.77	0.00	0.00	0.00	0.00	0.00	0.00

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Winter

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.4100e-003	1.4000e-004	0.0150	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0320	0.0320	9.0000e-005			0.0341
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0301	0.2481	0.3499	8.8000e-004	25.5123	8.5000e-004	25.5132	2.5462	8.0000e-004	2.5471	90.2592	90.2592	7.6900e-003			90.4513
Offroad	0.4973	4.7421	2.8576	9.9000e-003		0.1728	0.1728		0.1590	0.1590	958.9665	958.9665	0.3102			966.7202
Total	0.5288	4.9903	3.2225	0.0108	25.5123	0.1737	25.6860	2.5462	0.1598	2.7061	1,049.2576	1,049.2576	0.3179	0.0000	1,057.2056	

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Winter

2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.4100e-003	1.4000e-004	0.0150	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0320	0.0320	9.0000e-005			0.0341
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0301	0.2481	0.3499	8.8000e-004	25.5123	8.5000e-004	25.5132	2.5462	8.0000e-004	2.5471	90.2592	90.2592	7.6900e-003			90.4513
Offroad	0.4973	4.7421	2.8576	9.9000e-003		0.1728	0.1728		0.1590	0.1590	958.9665	958.9665	0.3102			966.7202
Total	0.5288	4.9903	3.2225	0.0108	25.5123	0.1737	25.6860	2.5462	0.1598	2.7061	1,049.2576	1,049.2576	0.3179	0.0000	1,057.2056	

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	4/15/2018	5/5/2018	6	18	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 438

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Winter

Acres of Paving: 0**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	2	6.00	158	0.38
Grading	Graders	2	6.00	187	0.41
Grading	Off-Highway Trucks	2	7.00	402	0.38
Grading	Rubber Tired Dozers	2	6.00	247	0.40
Grading	Scrapers	3	6.00	367	0.48
Grading	Skid Steer Loaders	2	6.00	65	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	15	104.00	6.00	4.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Winter

3.2 Grading - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Fugitive Dust					34.8386	0.0000	34.8386	7.7517	0.0000	7.7517			0.0000			0.0000	
Off-Road	7.4328	86.4391	47.0666	0.0955		3.6472	3.6472		3.3554	3.3554		9,613.154 1	9,613.154 1	2.9927		9,687.971 7	
Total	7.4328	86.4391	47.0666	0.0955	34.8386	3.6472	38.4858	7.7517	3.3554	11.1071		9,613.154 1	9,613.154 1	2.9927		9,687.971 7	

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	1.4200e-003	0.0610	8.8100e-003	1.7000e-004	3.9000e-003	2.3000e-004	4.1200e-003	1.0700e-003	2.2000e-004	1.2900e-003			18.0191	18.0191	8.5000e-004		18.0404
Vendor	0.0359	0.8282	0.2721	1.9100e-003	0.0496	7.0700e-003	0.0566	0.0143	6.7700e-003	0.0210			199.5774	199.5774	0.0131		199.9055
Worker	0.6776	0.5704	4.7646	5.3400e-003	0.5778	4.2300e-003	0.5820	0.1533	3.9000e-003	0.1572			526.4264	526.4264	0.0483		527.6347
Total	0.7149	1.4595	5.0456	7.4200e-003	0.6313	0.0115	0.6428	0.1686	0.0109	0.1795			744.0230	744.0230	0.0623		745.5806

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Winter

3.2 Grading - 2018**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Fugitive Dust					15.6774	0.0000	15.6774	3.4883	0.0000	3.4883			0.0000			0.0000	
Off-Road	7.4328	86.4391	47.0666	0.0955		3.6472	3.6472		3.3554	3.3554	0.0000	9,613.154 1	9,613.154 1	2.9927		9,687.971 7	
Total	7.4328	86.4391	47.0666	0.0955	15.6774	3.6472	19.3246	3.4883	3.3554	6.8437	0.0000	9,613.154 1	9,613.154 1	2.9927		9,687.971 7	

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	1.4200e-003	0.0610	8.8100e-003	1.7000e-004	3.9000e-003	2.3000e-004	4.1200e-003	1.0700e-003	2.2000e-004	1.2900e-003			18.0191	18.0191	8.5000e-004		18.0404
Vendor	0.0359	0.8282	0.2721	1.9100e-003	0.0496	7.0700e-003	0.0566	0.0143	6.7700e-003	0.0210			199.5774	199.5774	0.0131		199.9055
Worker	0.6776	0.5704	4.7646	5.3400e-003	0.5778	4.2300e-003	0.5820	0.1533	3.9000e-003	0.1572			526.4264	526.4264	0.0483		527.6347
Total	0.7149	1.4595	5.0456	7.4200e-003	0.6313	0.0115	0.6428	0.1686	0.0109	0.1795			744.0230	744.0230	0.0623		745.5806

4.0 Operational Detail - Mobile

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Winter

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0301	0.2481	0.3499	8.8000e-004	25.5123	8.5000e-004	25.5132	2.5462	8.0000e-004	2.5471	90.2592	90.2592	7.6900e-003			90.4513
Unmitigated	0.0301	0.2481	0.3499	8.8000e-004	25.5123	8.5000e-004	25.5132	2.5462	8.0000e-004	2.5471	90.2592	90.2592	7.6900e-003			90.4513

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated		Mitigated	
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT	Annual VMT	Annual VMT
User Defined Industrial	10.22	10.22	0.00	21,364	21,364	21,364	21,364
Total	10.22	10.22	0.00	21,364	21,364	21,364	21,364

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	6.70	5.00	8.90	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.503420	0.033264	0.160883	0.129541	0.018929	0.005318	0.019165	0.118376	0.003239	0.001168	0.005214	0.000745	0.000738

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Winter

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Winter

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Mitigated	1.4100e-003	1.4000e-004	0.0150	0.0000			5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0320	0.0320	9.0000e-005		0.0341
Unmitigated	1.4100e-003	1.4000e-004	0.0150	0.0000			5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0320	0.0320	9.0000e-005		0.0341

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	lb/day											lb/day					
Architectural Coating	0.0000						0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	
Landscaping	1.4100e-003	1.4000e-004	0.0150	0.0000			5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0320	0.0320	9.0000e-005		0.0341
Total	1.4100e-003	1.4000e-004	0.0150	0.0000			5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0320	0.0320	9.0000e-005		0.0341

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Winter

6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	lb/day										lb/day						
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000	
Landscaping	1.4100e-003	1.4000e-004	0.0150	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0320	0.0320	9.0000e-005		0.0341	
Total	1.4100e-003	1.4000e-004	0.0150	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0320	0.0320	9.0000e-005		0.0341	

7.0 Water Detail**7.1 Mitigation Measures Water****8.0 Waste Detail****8.1 Mitigation Measures Waste****9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Off-Highway Trucks	1	6.00	260	402	0.38	Diesel

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Winter

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Equipment Type	lb/day											lb/day					
Off-Highway Trucks	0.4973	4.7421	2.8576	9.9000e-003		0.1728	0.1728		0.1590	0.1590		958.9665	958.9665	0.3102		966.7202	
Total	0.4973	4.7421	2.8576	9.9000e-003		0.1728	0.1728		0.1590	0.1590		958.9665	958.9665	0.3102		966.7202	

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

ATTACHMENT B-5
SEVILLE 4 SOLAR PROJECT
HSAT CONSTRUCTION & OPERATION ACTIVITIES
CalEEMod MODEL OUTPUTS - ANNUAL
MODEL "SEVILLE 4 CALEEMOD V04 HSAT.xls"

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Seville 4 Solar Project - HSAT - Imperial County, Annual

Seville 4 Solar Project - HSAT
Imperial County, Annual

1.0 Project Characteristics**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	174.00	User Defined Unit	174.00	7,579,440.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	3.4	Precipitation Freq (Days)	12
Climate Zone	15			Operational Year	2018
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	1270.9	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - *

Land Use - HSAT Facility located on up to approximately 174 acres of land

Construction Phase - Anticipated Construction Schedule

Off-road Equipment - 1 grader for 8 hrs; 1 off-highway (water) truck for 8 hrs, 1 roller for 6 hrs

Off-road Equipment - *

Off-road Equipment - 3 aerial lifts for 4 hrs; 2 crawler tractors for 4 hrs; 1 other general industrial equipment for 8 hrs

Off-road Equipment - 2 excavators for 6 hrs; 2 graders for 6 hrs; 2 off-highway (water) truck for 7 hrs, 2 rubber tired dozers; 3 scrapers for 6 hrs; 2 skid steer loaders for 6 hrs; 2 tractor/loader/backhoe for 6 hrs

Off-road Equipment - 1 generator set for 8 hrs; 1 off-highway (water) truck for 6 hrs, 1 other general industrial equipment for 8 hrs; 2 skid steer loaders for 7 hrs

Off-road Equipment - 1 generator set for 8 hrs; 1 off-highway (water) truck for 6 hrs, 6 other general industrial equipment for 6 hrs; 2 skid steer loaders for 7 hrs

Seville 4 Solar Project - HSAT - Imperial County, Annual

Off-road Equipment - 1 generator set for 8 hrs; 1 off-highway (water) truck for 6 hrs, 1 other general industrial equipment for 8 hrs; 2 skid steer loaders for 7 hrs; 2 trenchers for 6 hrs

Off-road Equipment - 2 aerial lifts for 6 hrs; 1 crane for 6 hrs; 1 other general industrial equipment for 8 hrs; 1 tractor/loader/backhoe for 6 hrs

Off-road Equipment - 2 generator set for 8 hrs; 1 off-highway (water) truck for 6 hrs, 1 other general industrial equipment for 8 hrs; 2 skid steer loaders for 7 hrs; 2 trenchers for 6 hrs

Trips and VMT - Anticipated Worker, Vendor and Haul Truck Trips Included

On-road Fugitive Dust - All public roads traveled to the Project will be paved. Travel on unpaved private road are calculated in a separate workbook

Grading - Approx 10 acres graded total during access road construction; Approx 522 acres graded total during grading for the HSAT Facility

Vehicle Trips - Anticipated Worker, Vendor and Haul Truck Trips Included

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Road Dust -

Consumer Products - None

Area Coating - None

Energy Use - The Project would consume an estimated 300 kW-hrs of electrical energy daily;

Water And Wastewater - 10 acre-feet per year

Construction Off-road Equipment Mitigation - Watering will occur two time per day on exposed areas

Operational Off-Road Equipment - *

Fleet Mix - *

Table Name	Column Name	Default Value	New Value
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstructionPhase	NumDays	3,100.00	60.00
tblConstructionPhase	NumDays	3,100.00	24.00
tblConstructionPhase	NumDays	3,100.00	48.00
tblConstructionPhase	NumDays	3,100.00	60.00
tblConstructionPhase	NumDays	3,100.00	42.00

Seville 4 Solar Project - HSAT - Imperial County, Annual

tblConstructionPhase	NumDays	3,100.00	30.00
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tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblEnergyUse	T24E	0.00	0.02
tblGrading	AcresOfGrading	6.00	10.00
tblGrading	AcresOfGrading	54.00	522.00
tblLandUse	BuildingSpaceSquareFeet	0.00	7,579,440.00
tblLandUse	LandUseSquareFeet	0.00	7,579,440.00
tblLandUse	LotAcreage	0.00	174.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00

Seville 4 Solar Project - HSAT - Imperial County, Annual

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tblOffRoadEquipment	PhaseName		Access Road Construction

Seville 4 Solar Project - HSAT - Imperial County, Annual

tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
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tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00

Seville 4 Solar Project - HSAT - Imperial County, Annual

tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
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tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	6.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripNumber	0.00	12.00
tblTripsAndVMT	HaulingTripNumber	0.00	4.00
tblTripsAndVMT	HaulingTripNumber	0.00	10.00
tblTripsAndVMT	HaulingTripNumber	0.00	4.00
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tblTripsAndVMT	HaulingTripNumber	0.00	16.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	1,242.00	0.00
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tblTripsAndVMT	VendorTripNumber	1,242.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	12.00
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tblTripsAndVMT	WorkerTripNumber	3,183.00	112.00
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tblTripsAndVMT	WorkerTripNumber	3,183.00	16.00
tblTripsAndVMT	WorkerTripNumber	3,183.00	112.00

Seville 4 Solar Project - HSAT - Imperial County, Annual

tblTripsAndVMT	WorkerTripNumber	3,183.00	32.00
tblTripsAndVMT	WorkerTripNumber	3,183.00	32.00
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tblVehicleTrips	ST_TR	0.00	0.06
tblVehicleTrips	WD_TR	0.00	0.06
tblWater	OutdoorWaterUseRate	0.00	3,258,514.27

2.0 Emissions Summary

Seville 4 Solar Project - HSAT - Imperial County, Annual

2.1 Overall Construction**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr												MT/yr			
2018	0.4000	3.4787	2.7813	4.8400e-003	0.4168	0.1861	0.6028	0.0893	0.1736	0.2630	0.0000	437.2625	437.2625	0.1087	0.0000	439.9811
Maximum	0.4000	3.4787	2.7813	4.8400e-003	0.4168	0.1861	0.6028	0.0893	0.1736	0.2630	0.0000	437.2625	437.2625	0.1087	0.0000	439.9811

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr												MT/yr			
2018	0.4000	3.4787	2.7813	4.8400e-003	0.2169	0.1861	0.4030	0.0480	0.1736	0.2217	0.0000	437.2621	437.2621	0.1087	0.0000	439.9807
Maximum	0.4000	3.4787	2.7813	4.8400e-003	0.2169	0.1861	0.4030	0.0480	0.1736	0.2217	0.0000	437.2621	437.2621	0.1087	0.0000	439.9807

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	47.96	0.00	33.15	46.26	0.00	15.72	0.00	0.00	0.00	0.00	0.00	0.00

Seville 4 Solar Project - HSAT - Imperial County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	4-1-2018	6-30-2018	0.8654	0.8654
2	7-1-2018	9-30-2018	0.5991	0.5991
		Highest	0.8654	0.8654

2.2 Overall OperationalUnmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Area	1.5000e-004	2.0000e-005	1.6200e-003	0.0000		1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	0.0000	3.1100e-003	3.1100e-003	1.0000e-005	0.0000	3.3200e-003		
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	87.3865	87.3865	1.9900e-003	4.1000e-004	87.5593		
Mobile	6.0000e-003	0.0442	0.0674	1.5000e-004	4.0656	1.7000e-004	4.0657	0.4058	1.6000e-004	0.4059	0.0000	14.0942	14.0942	1.2000e-003	0.0000	14.1242	
Offroad	0.0754	0.8117	0.4097	1.2900e-003		0.0296	0.0296		0.0273	0.0273	0.0000	117.6052	117.6052	0.0366	0.0000	118.5205	
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Water						0.0000	0.0000		0.0000	0.0000	0.0000	20.8694	20.8694	4.8000e-004	1.0000e-004	20.9107	
Total	0.0816	0.8559	0.4787	1.4400e-003	4.0656	0.0298	4.0954	0.4058	0.0274	0.4332	0.0000	239.9585	239.9585	0.0403	5.1000e-004	241.1181	

Seville 4 Solar Project - HSAT - Imperial County, Annual

2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Area	1.5000e-004	2.0000e-005	1.6200e-003	0.0000			1.0000e-005	1.0000e-005		1.0000e-005	0.0000	3.1100e-003	3.1100e-003	1.0000e-005	0.0000	3.3200e-003	
Energy	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000	87.3865	87.3865	1.9900e-003	4.1000e-004	87.5593	
Mobile	6.0000e-003	0.0442	0.0674	1.5000e-004	4.0656	1.7000e-004	4.0657	0.4058	1.6000e-004	0.4059	0.0000	14.0942	14.0942	1.2000e-003	0.0000	14.1242	
Offroad	0.0754	0.8117	0.4097	1.2900e-003			0.0296	0.0296		0.0273	0.0273	0.0000	117.6052	117.6052	0.0366	0.0000	118.5205
Waste							0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Water							0.0000	0.0000		0.0000	0.0000	20.8694	20.8694	4.8000e-004	1.0000e-004	20.9107	
Total	0.0816	0.8559	0.4787	1.4400e-003	4.0656	0.0298	4.0954	0.4058	0.0274	0.4332	0.0000	239.9585	239.9585	0.0403	5.1000e-004	241.1181	

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Seville 4 Solar Project - HSAT - Imperial County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Access Road Construction	Grading	4/1/2018	4/14/2018	6	12	
2	Grading	Grading	4/15/2018	5/5/2018	6	18	
3	Rack Installation	Building Construction	5/6/2018	7/14/2018	6	60	
4	GenTie Line Construction	Building Construction	6/11/2018	7/8/2018	6	24	
5	Substation Construction	Building Construction	6/11/2018	8/5/2018	6	48	
6	Solar Panel Installation	Building Construction	6/11/2018	8/19/2018	6	60	
7	System Wiring and Trenching	Building Construction	7/9/2018	8/26/2018	6	42	
8	Inverter Installation	Building Construction	8/6/2018	9/9/2018	6	30	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 522

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Access Road Construction	Excavators	0	8.00	158	0.38
Access Road Construction	Graders	1	8.00	187	0.41
Access Road Construction	Off-Highway Trucks	1	8.00	402	0.38
Access Road Construction	Rollers	1	6.00	80	0.38
Access Road Construction	Rubber Tired Dozers	0	8.00	247	0.40
Access Road Construction	Scrapers	0	8.00	367	0.48
Access Road Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Excavators	2	6.00	158	0.38

Seville 4 Solar Project - HSAT - Imperial County, Annual

Grading	Graders	2	6.00	187	0.41
Grading	Off-Highway Trucks	2	7.00	402	0.38
Grading	Rubber Tired Dozers	2	6.00	247	0.40
Grading	Scrapers	3	6.00	367	0.48
Grading	Skid Steer Loaders	2	6.00	65	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Rack Installation	Cranes	0	7.00	231	0.29
Rack Installation	Forklifts	0	8.00	89	0.20
Rack Installation	Generator Sets	1	8.00	84	0.74
Rack Installation	Off-Highway Trucks	1	6.00	402	0.38
Rack Installation	Other General Industrial Equipment	6	6.00	88	0.34
Rack Installation	Skid Steer Loaders	2	7.00	65	0.37
Rack Installation	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Rack Installation	Welders	0	8.00	46	0.45
GenTie Line Construction	Aerial Lifts	3	4.00	63	0.31
GenTie Line Construction	Cranes	0	7.00	231	0.29
GenTie Line Construction	Crawler Tractors	2	4.00	212	0.43
GenTie Line Construction	Forklifts	0	8.00	89	0.20
GenTie Line Construction	Generator Sets	0	8.00	84	0.74
GenTie Line Construction	Other General Industrial Equipment	1	8.00	88	0.34
GenTie Line Construction	Tractors/Loaders/Backhoes	0	7.00	97	0.37
GenTie Line Construction	Welders	0	8.00	46	0.45
Substation Construction	Aerial Lifts	2	6.00	63	0.31
Substation Construction	Cranes	1	6.00	231	0.29
Substation Construction	Forklifts	0	8.00	89	0.20
Substation Construction	Generator Sets	0	8.00	84	0.74
Substation Construction	Other General Industrial Equipment	1	8.00	88	0.34

Seville 4 Solar Project - HSAT - Imperial County, Annual

Substation Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Substation Construction	Welders	0	8.00	46	0.45
Solar Panel Installation	Cranes	0	7.00	231	0.29
Solar Panel Installation	Forklifts	0	8.00	89	0.20
Solar Panel Installation	Generator Sets	1	8.00	84	0.74
Solar Panel Installation	Off-Highway Trucks	1	6.00	402	0.38
Solar Panel Installation	Other General Industrial Equipment	1	8.00	88	0.34
Solar Panel Installation	Skid Steer Loaders	2	7.00	65	0.37
Solar Panel Installation	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Solar Panel Installation	Trenchers	2	6.00	78	0.50
Solar Panel Installation	Welders	0	8.00	46	0.45
System Wiring and Trenching	Cranes	0	7.00	231	0.29
System Wiring and Trenching	Forklifts	0	8.00	89	0.20
System Wiring and Trenching	Generator Sets	2	8.00	84	0.74
System Wiring and Trenching	Off-Highway Trucks	1	6.00	402	0.38
System Wiring and Trenching	Other General Industrial Equipment	1	8.00	88	0.34
System Wiring and Trenching	Skid Steer Loaders	2	7.00	65	0.37
System Wiring and Trenching	Tractors/Loaders/Backhoes	0	7.00	97	0.37
System Wiring and Trenching	Trenchers	2	6.00	78	0.50
System Wiring and Trenching	Welders	0	8.00	46	0.45
Inverter Installation	Cranes	0	7.00	231	0.29
Inverter Installation	Forklifts	0	8.00	89	0.20
Inverter Installation	Generator Sets	1	8.00	84	0.74
Inverter Installation	Off-Highway Trucks	1	6.00	402	0.38
Inverter Installation	Other General Industrial Equipment	1	8.00	88	0.34
Inverter Installation	Skid Steer Loaders	2	7.00	65	0.37
Inverter Installation	Tractors/Loaders/Backhoes	0	7.00	97	0.37

Seville 4 Solar Project - HSAT - Imperial County, Annual

Inverter Installation	Welders		0	8.00	46	0.45
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Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Access Road Construction	3	12.00	0.00	12.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	15	104.00	6.00	4.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
Rack Installation	10	112.00	0.00	10.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
GenTie Line Construction	6	16.00	2.00	0.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
Substation Construction	5	16.00	0.00	4.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
Solar Panel Installation	7	112.00	0.00	10.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
System Wiring and Trenching	8	32.00	0.00	10.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
Inverter Installation	5	32.00	0.00	16.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

Seville 4 Solar Project - HSAT - Imperial County, Annual

3.2 Access Road Construction - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Fugitive Dust					5.3000e-003	0.0000	5.3000e-003	5.7000e-004	0.0000	5.7000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	8.9200e-003	0.1039	0.0454	1.3000e-004		3.9900e-003	3.9900e-003		3.6700e-003	3.6700e-003	0.0000	11.9611	11.9611	3.7200e-003	0.0000	12.0542	
Total	8.9200e-003	0.1039	0.0454	1.3000e-004	5.3000e-003	3.9900e-003	9.2900e-003	5.7000e-004	3.6700e-003	4.2400e-003	0.0000	11.9611	11.9611	3.7200e-003	0.0000	12.0542	

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	4.0000e-005	1.6600e-003	2.1000e-004	0.0000	1.0000e-004	1.0000e-005	1.1000e-004	3.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.4490	0.4490	2.0000e-005	0.0000	0.4495	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	4.9000e-004	3.9000e-004	3.5600e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3567	0.3567	3.0000e-005	0.0000	0.3575	
Total	5.3000e-004	2.0500e-003	3.7700e-003	0.0000	5.0000e-004	1.0000e-005	5.1000e-004	1.4000e-004	1.0000e-005	1.4000e-004	0.0000	0.8057	0.8057	5.0000e-005	0.0000	0.8070	

Seville 4 Solar Project - HSAT - Imperial County, Annual

3.2 Access Road Construction - 2018**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	8.9200e-003	0.1039	0.0454	1.3000e-004		3.9900e-003	3.9900e-003		3.6700e-003	3.6700e-003	0.0000	11.9611	11.9611	3.7200e-003	0.0000	12.0542	
Total	8.9200e-003	0.1039	0.0454	1.3000e-004	2.3900e-003	3.9900e-003	6.3800e-003	2.6000e-004	3.6700e-003	3.9300e-003	0.0000	11.9611	11.9611	3.7200e-003	0.0000	12.0542	

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	4.0000e-005	1.6600e-003	2.1000e-004	0.0000	1.0000e-004	1.0000e-005	1.1000e-004	3.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.4490	0.4490	2.0000e-005	0.0000	0.4495	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	4.9000e-004	3.9000e-004	3.5600e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3567	0.3567	3.0000e-005	0.0000	0.3575	
Total	5.3000e-004	2.0500e-003	3.7700e-003	0.0000	5.0000e-004	1.0000e-005	5.1000e-004	1.4000e-004	1.0000e-005	1.4000e-004	0.0000	0.8057	0.8057	5.0000e-005	0.0000	0.8070	

Seville 4 Solar Project - HSAT - Imperial County, Annual

3.3 Grading - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Fugitive Dust					0.3581	0.0000	0.3581	0.0746	0.0000	0.0746	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	0.0669	0.7780	0.4236	8.6000e-004		0.0328	0.0328		0.0302	0.0302	0.0000	78.4882	78.4882	0.0244	0.0000	79.0990	
Total	0.0669	0.7780	0.4236	8.6000e-004	0.3581	0.0328	0.3909	0.0746	0.0302	0.1048	0.0000	78.4882	78.4882	0.0244	0.0000	79.0990	

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	1.0000e-005	5.5000e-004	7.0000e-005	0.0000	3.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1497	0.1497	1.0000e-005	0.0000	0.1498	
Vendor	3.1000e-004	7.5000e-003	2.2900e-003	2.0000e-005	4.4000e-004	6.0000e-005	5.1000e-004	1.3000e-004	6.0000e-005	1.9000e-004	0.0000	1.6643	1.6643	1.0000e-004	0.0000	1.6668	
Worker	6.3300e-003	5.0400e-003	0.0462	5.0000e-005	5.1600e-003	4.0000e-005	5.2000e-003	1.3700e-003	4.0000e-005	1.4100e-003	0.0000	4.6370	4.6370	4.2000e-004	0.0000	4.6476	
Total	6.6500e-003	0.0131	0.0486	7.0000e-005	5.6300e-003	1.0000e-004	5.7500e-003	1.5100e-003	1.0000e-004	1.6100e-003	0.0000	6.4510	6.4510	5.3000e-004	0.0000	6.4642	

Seville 4 Solar Project - HSAT - Imperial County, Annual

3.3 Grading - 2018**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Fugitive Dust					0.1611	0.0000	0.1611	0.0336	0.0000	0.0336	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	0.0669	0.7780	0.4236	8.6000e-004		0.0328	0.0328		0.0302	0.0302	0.0000	78.4881	78.4881	0.0244	0.0000	79.0989	
Total	0.0669	0.7780	0.4236	8.6000e-004	0.1611	0.0328	0.1940	0.0336	0.0302	0.0638	0.0000	78.4881	78.4881	0.0244	0.0000	79.0989	

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	1.0000e-005	5.5000e-004	7.0000e-005	0.0000	3.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1497	0.1497	1.0000e-005	0.0000	0.1498	
Vendor	3.1000e-004	7.5000e-003	2.2900e-003	2.0000e-005	4.4000e-004	6.0000e-005	5.1000e-004	1.3000e-004	6.0000e-005	1.9000e-004	0.0000	1.6643	1.6643	1.0000e-004	0.0000	1.6668	
Worker	6.3300e-003	5.0400e-003	0.0462	5.0000e-005	5.1600e-003	4.0000e-005	5.2000e-003	1.3700e-003	4.0000e-005	1.4100e-003	0.0000	4.6370	4.6370	4.2000e-004	0.0000	4.6476	
Total	6.6500e-003	0.0131	0.0486	7.0000e-005	5.6300e-003	1.0000e-004	5.7500e-003	1.5100e-003	1.0000e-004	1.6100e-003	0.0000	6.4510	6.4510	5.3000e-004	0.0000	6.4642	

Seville 4 Solar Project - HSAT - Imperial County, Annual

3.4 Rack Installation - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr														MT/yr	
Off-Road	0.0771	0.7274	0.5562	9.5000e-004		0.0457	0.0457		0.0427	0.0427	0.0000	85.5528	85.5528	0.0226	0.0000	86.1172
Total	0.0771	0.7274	0.5562	9.5000e-004		0.0457	0.0457		0.0427	0.0427	0.0000	85.5528	85.5528	0.0226	0.0000	86.1172

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr														MT/yr	
Hauling	3.0000e-005	1.3800e-003	1.8000e-004	0.0000	9.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	0.0000	3.0000e-005	0.0000	0.3741	0.3741	2.0000e-005	0.0000	0.3745
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0227	0.0181	0.1660	1.9000e-004	0.0185	1.4000e-004	0.0187	4.9200e-003	1.3000e-004	5.0500e-003	0.0000	16.6457	16.6457	1.5200e-003	0.0000	16.6838
Total	0.0228	0.0195	0.1662	1.9000e-004	0.0186	1.5000e-004	0.0188	4.9400e-003	1.3000e-004	5.0800e-003	0.0000	17.0199	17.0199	1.5400e-003	0.0000	17.0583

Seville 4 Solar Project - HSAT - Imperial County, Annual

3.4 Rack Installation - 2018**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr														MT/yr	
Off-Road	0.0771	0.7274	0.5562	9.5000e-004		0.0457	0.0457		0.0427	0.0427	0.0000	85.5527	85.5527	0.0226	0.0000	86.1171
Total	0.0771	0.7274	0.5562	9.5000e-004		0.0457	0.0457		0.0427	0.0427	0.0000	85.5527	85.5527	0.0226	0.0000	86.1171

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr														MT/yr	
Hauling	3.0000e-005	1.3800e-003	1.8000e-004	0.0000	9.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	0.0000	3.0000e-005	0.0000	0.3741	0.3741	2.0000e-005	0.0000	0.3745
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0227	0.0181	0.1660	1.9000e-004	0.0185	1.4000e-004	0.0187	4.9200e-003	1.3000e-004	5.0500e-003	0.0000	16.6457	16.6457	1.5200e-003	0.0000	16.6838
Total	0.0228	0.0195	0.1662	1.9000e-004	0.0186	1.5000e-004	0.0188	4.9400e-003	1.3000e-004	5.0800e-003	0.0000	17.0199	17.0199	1.5400e-003	0.0000	17.0583

Seville 4 Solar Project - HSAT - Imperial County, Annual

3.5 GenTie Line Construction - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr														MT/yr	
Off-Road	0.0120	0.1462	0.0761	1.6000e-004		6.7000e-003	6.7000e-003		6.1600e-003	6.1600e-003	0.0000	14.1682	14.1682	4.4100e-003	0.0000	14.2784
Total	0.0120	0.1462	0.0761	1.6000e-004		6.7000e-003	6.7000e-003		6.1600e-003	6.1600e-003	0.0000	14.1682	14.1682	4.4100e-003	0.0000	14.2784

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr														MT/yr	
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4000e-004	3.3300e-003	1.0200e-003	1.0000e-005	2.0000e-004	3.0000e-005	2.3000e-004	6.0000e-005	3.0000e-005	8.0000e-005	0.0000	0.7397	0.7397	4.0000e-005	0.0000	0.7408
Worker	1.3000e-003	1.0300e-003	9.4800e-003	1.0000e-005	1.0600e-003	1.0000e-005	1.0700e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.9512	0.9512	9.0000e-005	0.0000	0.9534
Total	1.4400e-003	4.3600e-003	0.0105	2.0000e-005	1.2600e-003	4.0000e-005	1.3000e-003	3.4000e-004	4.0000e-005	3.7000e-004	0.0000	1.6909	1.6909	1.3000e-004	0.0000	1.6942

Seville 4 Solar Project - HSAT - Imperial County, Annual

3.5 GenTie Line Construction - 2018**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr														MT/yr	
Off-Road	0.0120	0.1462	0.0761	1.6000e-004		6.7000e-003	6.7000e-003		6.1600e-003	6.1600e-003	0.0000	14.1682	14.1682	4.4100e-003	0.0000	14.2784
Total	0.0120	0.1462	0.0761	1.6000e-004		6.7000e-003	6.7000e-003		6.1600e-003	6.1600e-003	0.0000	14.1682	14.1682	4.4100e-003	0.0000	14.2784

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr														MT/yr	
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4000e-004	3.3300e-003	1.0200e-003	1.0000e-005	2.0000e-004	3.0000e-005	2.3000e-004	6.0000e-005	3.0000e-005	8.0000e-005	0.0000	0.7397	0.7397	4.0000e-005	0.0000	0.7408
Worker	1.3000e-003	1.0300e-003	9.4800e-003	1.0000e-005	1.0600e-003	1.0000e-005	1.0700e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.9512	0.9512	9.0000e-005	0.0000	0.9534
Total	1.4400e-003	4.3600e-003	0.0105	2.0000e-005	1.2600e-003	4.0000e-005	1.3000e-003	3.4000e-004	4.0000e-005	3.7000e-004	0.0000	1.6909	1.6909	1.3000e-004	0.0000	1.6942

Seville 4 Solar Project - HSAT - Imperial County, Annual

3.6 Substation Construction - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr														MT/yr	
Off-Road	0.0236	0.2585	0.1758	2.8000e-004		0.0143	0.0143		0.0132	0.0132	0.0000	25.7156	25.7156	8.0100e-003	0.0000	25.9158
Total	0.0236	0.2585	0.1758	2.8000e-004		0.0143	0.0143		0.0132	0.0132	0.0000	25.7156	25.7156	8.0100e-003	0.0000	25.9158

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr														MT/yr	
Hauling	1.0000e-005	5.5000e-004	7.0000e-005	0.0000	3.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1497	0.1497	1.0000e-005	0.0000	0.1498
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6000e-003	2.0700e-003	0.0190	2.0000e-005	2.1200e-003	2.0000e-005	2.1300e-003	5.6000e-004	1.0000e-005	5.8000e-004	0.0000	1.9024	1.9024	1.7000e-004	0.0000	1.9067
Total	2.6100e-003	2.6200e-003	0.0190	2.0000e-005	2.1500e-003	2.0000e-005	2.1700e-003	5.7000e-004	1.0000e-005	5.9000e-004	0.0000	2.0520	2.0520	1.8000e-004	0.0000	2.0565

Seville 4 Solar Project - HSAT - Imperial County, Annual

3.6 Substation Construction - 2018**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr														MT/yr	
Off-Road	0.0236	0.2585	0.1758	2.8000e-004		0.0143	0.0143		0.0132	0.0132	0.0000	25.7156	25.7156	8.0100e-003	0.0000	25.9157
Total	0.0236	0.2585	0.1758	2.8000e-004		0.0143	0.0143		0.0132	0.0132	0.0000	25.7156	25.7156	8.0100e-003	0.0000	25.9157

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr														MT/yr	
Hauling	1.0000e-005	5.5000e-004	7.0000e-005	0.0000	3.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1497	0.1497	1.0000e-005	0.0000	0.1498
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6000e-003	2.0700e-003	0.0190	2.0000e-005	2.1200e-003	2.0000e-005	2.1300e-003	5.6000e-004	1.0000e-005	5.8000e-004	0.0000	1.9024	1.9024	1.7000e-004	0.0000	1.9067
Total	2.6100e-003	2.6200e-003	0.0190	2.0000e-005	2.1500e-003	2.0000e-005	2.1700e-003	5.7000e-004	1.0000e-005	5.9000e-004	0.0000	2.0520	2.0520	1.8000e-004	0.0000	2.0565

Seville 4 Solar Project - HSAT - Imperial County, Annual

3.7 Solar Panel Installation - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr														MT/yr	
Off-Road	0.0666	0.6359	0.4607	8.3000e-004		0.0379	0.0379		0.0355	0.0355	0.0000	74.8727	74.8727	0.0193	0.0000	75.3541
Total	0.0666	0.6359	0.4607	8.3000e-004		0.0379	0.0379		0.0355	0.0355	0.0000	74.8727	74.8727	0.0193	0.0000	75.3541

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr														MT/yr	
Hauling	3.0000e-005	1.3800e-003	1.8000e-004	0.0000	9.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	0.0000	3.0000e-005	0.0000	0.3741	0.3741	2.0000e-005	0.0000	0.3745
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0227	0.0181	0.1660	1.9000e-004	0.0185	1.4000e-004	0.0187	4.9200e-003	1.3000e-004	5.0500e-003	0.0000	16.6457	16.6457	1.5200e-003	0.0000	16.6838
Total	0.0228	0.0195	0.1662	1.9000e-004	0.0186	1.5000e-004	0.0188	4.9400e-003	1.3000e-004	5.0800e-003	0.0000	17.0199	17.0199	1.5400e-003	0.0000	17.0583

Seville 4 Solar Project - HSAT - Imperial County, Annual

3.7 Solar Panel Installation - 2018**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr														MT/yr	
Off-Road	0.0666	0.6359	0.4607	8.3000e-004		0.0379	0.0379		0.0355	0.0355	0.0000	74.8726	74.8726	0.0193	0.0000	75.3540
Total	0.0666	0.6359	0.4607	8.3000e-004		0.0379	0.0379		0.0355	0.0355	0.0000	74.8726	74.8726	0.0193	0.0000	75.3540

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr														MT/yr	
Hauling	3.0000e-005	1.3800e-003	1.8000e-004	0.0000	9.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	0.0000	3.0000e-005	0.0000	0.3741	0.3741	2.0000e-005	0.0000	0.3745
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0227	0.0181	0.1660	1.9000e-004	0.0185	1.4000e-004	0.0187	4.9200e-003	1.3000e-004	5.0500e-003	0.0000	16.6457	16.6457	1.5200e-003	0.0000	16.6838
Total	0.0228	0.0195	0.1662	1.9000e-004	0.0186	1.5000e-004	0.0188	4.9400e-003	1.3000e-004	5.0800e-003	0.0000	17.0199	17.0199	1.5400e-003	0.0000	17.0583

Seville 4 Solar Project - HSAT - Imperial County, Annual

3.8 System Wiring and Trenching - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr														MT/yr	
Off-Road	0.0572	0.5315	0.4012	7.2000e-004		0.0321	0.0321		0.0304	0.0304	0.0000	64.2803	64.2803	0.0143	0.0000	64.6386
Total	0.0572	0.5315	0.4012	7.2000e-004		0.0321	0.0321		0.0304	0.0304	0.0000	64.2803	64.2803	0.0143	0.0000	64.6386

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr														MT/yr	
Hauling	3.0000e-005	1.3800e-003	1.8000e-004	0.0000	9.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	0.0000	3.0000e-005	0.0000	0.3741	0.3741	2.0000e-005	0.0000	0.3745
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5500e-003	3.6200e-003	0.0332	4.0000e-005	3.7100e-003	3.0000e-005	3.7300e-003	9.8000e-004	3.0000e-005	1.0100e-003	0.0000	3.3292	3.3292	3.0000e-004	0.0000	3.3368
Total	4.5800e-003	5.0000e-003	0.0334	4.0000e-005	3.8000e-003	4.0000e-005	3.8200e-003	1.0000e-003	3.0000e-005	1.0400e-003	0.0000	3.7033	3.7033	3.2000e-004	0.0000	3.7113

Seville 4 Solar Project - HSAT - Imperial County, Annual

3.8 System Wiring and Trenching - 2018**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr														MT/yr	
Off-Road	0.0572	0.5315	0.4012	7.2000e-004		0.0321	0.0321		0.0304	0.0304	0.0000	64.2802	64.2802	0.0143	0.0000	64.6385
Total	0.0572	0.5315	0.4012	7.2000e-004		0.0321	0.0321		0.0304	0.0304	0.0000	64.2802	64.2802	0.0143	0.0000	64.6385

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr														MT/yr	
Hauling	3.0000e-005	1.3800e-003	1.8000e-004	0.0000	9.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	0.0000	3.0000e-005	0.0000	0.3741	0.3741	2.0000e-005	0.0000	0.3745
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5500e-003	3.6200e-003	0.0332	4.0000e-005	3.7100e-003	3.0000e-005	3.7300e-003	9.8000e-004	3.0000e-005	1.0100e-003	0.0000	3.3292	3.3292	3.0000e-004	0.0000	3.3368
Total	4.5800e-003	5.0000e-003	0.0334	4.0000e-005	3.8000e-003	4.0000e-005	3.8200e-003	1.0000e-003	3.0000e-005	1.0400e-003	0.0000	3.7033	3.7033	3.2000e-004	0.0000	3.7113

Seville 4 Solar Project - HSAT - Imperial County, Annual

3.9 Inverter Installation - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0231	0.2264	0.1707	3.4000e-004		0.0120	0.0120		0.0114	0.0114	0.0000	30.5046	30.5046	7.4700e-003	0.0000	30.6913
Total	0.0231	0.2264	0.1707	3.4000e-004		0.0120	0.0120		0.0114	0.0114	0.0000	30.5046	30.5046	7.4700e-003	0.0000	30.6913

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.0000e-005	2.2100e-003	2.9000e-004	1.0000e-005	1.4000e-004	1.0000e-005	1.5000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.5986	0.5986	3.0000e-005	0.0000	0.5993
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2500e-003	2.5900e-003	0.0237	3.0000e-005	2.6500e-003	2.0000e-005	2.6700e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.3780	2.3780	2.2000e-004	0.0000	2.3834
Total	3.3000e-003	4.8000e-003	0.0240	4.0000e-005	2.7900e-003	3.0000e-005	2.8200e-003	7.4000e-004	3.0000e-005	7.7000e-004	0.0000	2.9766	2.9766	2.5000e-004	0.0000	2.9827

Seville 4 Solar Project - HSAT - Imperial County, Annual

3.9 Inverter Installation - 2018**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0231	0.2264	0.1707	3.4000e-004		0.0120	0.0120		0.0114	0.0114	0.0000	30.5046	30.5046	7.4700e-003	0.0000	30.6913
Total	0.0231	0.2264	0.1707	3.4000e-004		0.0120	0.0120		0.0114	0.0114	0.0000	30.5046	30.5046	7.4700e-003	0.0000	30.6913

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.0000e-005	2.2100e-003	2.9000e-004	1.0000e-005	1.4000e-004	1.0000e-005	1.5000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.5986	0.5986	3.0000e-005	0.0000	0.5993
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2500e-003	2.5900e-003	0.0237	3.0000e-005	2.6500e-003	2.0000e-005	2.6700e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.3780	2.3780	2.2000e-004	0.0000	2.3834
Total	3.3000e-003	4.8000e-003	0.0240	4.0000e-005	2.7900e-003	3.0000e-005	2.8200e-003	7.4000e-004	3.0000e-005	7.7000e-004	0.0000	2.9766	2.9766	2.5000e-004	0.0000	2.9827

4.0 Operational Detail - Mobile

Seville 4 Solar Project - HSAT - Imperial County, Annual

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Mitigated	6.0000e-003	0.0442	0.0674	1.5000e-004	4.0656	1.7000e-004	4.0657	0.4058	1.6000e-004	0.4059	0.0000	14.0942	14.0942	1.2000e-003	0.0000	14.1242	
Unmitigated	6.0000e-003	0.0442	0.0674	1.5000e-004	4.0656	1.7000e-004	4.0657	0.4058	1.6000e-004	0.4059	0.0000	14.0942	14.0942	1.2000e-003	0.0000	14.1242	

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated		Mitigated	
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT	Annual VMT	Annual VMT
User Defined Industrial	10.44	10.44	0.00	21,824	21,824	21,824	21,824
Total	10.44	10.44	0.00	21,824	21,824	21,824	21,824

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	6.70	5.00	8.90	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.489745	0.035508	0.162111	0.141569	0.021911	0.005773	0.018523	0.113979	0.002979	0.001120	0.005181	0.000766	0.000834

Seville 4 Solar Project - HSAT - Imperial County, Annual

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Seville 4 Solar Project - HSAT - Imperial County, Annual

5.2 Energy by Land Use - NaturalGas

Unmitigated

Mitigated

Seville 4 Solar Project - HSAT - Imperial County, Annual

5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	151589	87.3865	1.9900e-003	4.1000e-004	87.5593
Total		87.3865	1.9900e-003	4.1000e-004	87.5593

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	151589	87.3865	1.9900e-003	4.1000e-004	87.5593
Total		87.3865	1.9900e-003	4.1000e-004	87.5593

6.0 Area Detail**6.1 Mitigation Measures Area**

Seville 4 Solar Project - HSAT - Imperial County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Mitigated	1.5000e-004	2.0000e-005	1.6200e-003	0.0000			1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.1100e-003	3.1100e-003	1.0000e-005	0.0000	3.3200e-003
Unmitigated	1.5000e-004	2.0000e-005	1.6200e-003	0.0000			1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.1100e-003	3.1100e-003	1.0000e-005	0.0000	3.3200e-003

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	tons/yr											MT/yr					
Architectural Coating	0.0000						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.5000e-004	2.0000e-005	1.6200e-003	0.0000			1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.1100e-003	3.1100e-003	1.0000e-005	0.0000	3.3200e-003
Total	1.5000e-004	2.0000e-005	1.6200e-003	0.0000			1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.1100e-003	3.1100e-003	1.0000e-005	0.0000	3.3200e-003

Seville 4 Solar Project - HSAT - Imperial County, Annual

6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.5000e-004	2.0000e-005	1.6200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	3.1100e-003	3.1100e-003	1.0000e-005	0.0000	3.3200e-003	
Total	1.5000e-004	2.0000e-005	1.6200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.1100e-003	3.1100e-003	1.0000e-005	0.0000	3.3200e-003

7.0 Water Detail**7.1 Mitigation Measures Water**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	20.8694	4.8000e-004	1.0000e-004	20.9107
Unmitigated	20.8694	4.8000e-004	1.0000e-004	20.9107

Seville 4 Solar Project - HSAT - Imperial County, Annual

7.2 Water by Land Use**Unmitigated**

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined	0 /	20.8694	4.8000e-004	1.0000e-004	20.9107
Industrial	3.25851				
Total		20.8694	4.8000e-004	1.0000e-004	20.9107

Mitigated

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined	0 /	20.8694	4.8000e-004	1.0000e-004	20.9107
Industrial	3.25851				
Total		20.8694	4.8000e-004	1.0000e-004	20.9107

8.0 Waste Detail**8.1 Mitigation Measures Waste**

Seville 4 Solar Project - HSAT - Imperial County, Annual

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land UseUnmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Seville 4 Solar Project - HSAT - Imperial County, Annual

8.2 Waste by Land Use**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Off-Highway Trucks	1	6.00	260	402	0.38	Diesel

Seville 4 Solar Project - HSAT - Imperial County, Annual

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Equipment Type	tons/yr											MT/yr					
Off-Highway Trucks	0.0754	0.8117	0.4097	1.2900e-003		0.0296	0.0296		0.0273	0.0273	0.0000	117.6052	117.6052	0.0366	0.0000	118.5205	
Total	0.0754	0.8117	0.4097	1.2900e-003		0.0296	0.0296		0.0273	0.0273	0.0000	117.6052	117.6052	0.0366	0.0000	118.5205	

10.0 Stationary EquipmentFire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

ATTACHMENT B-6

SEVILLE 4 SOLAR PROJECT

FIXED FRAME CONSTRUCTION & OPERATION ACTIVITIES

CalEEMod MODEL OUTPUTS - ANNUAL
MODEL "SEVILLE 4 CALEEMOD V04 FF.xls"

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Seville 4 Solar Project - Fixed Frame Array - Imperial County, Annual

Seville 4 Solar Project - Fixed Frame Array
Imperial County, Annual**1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	146.00	User Defined Unit	146.00	6,359,760.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	3.4	Precipitation Freq (Days)	12
Climate Zone	15			Operational Year	2020
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	1270.9	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Annual

Project Characteristics - *

Land Use - Fixed Frame Facility located on up to approximately 146 acres of land

Construction Phase - Anticipated Construction Schedule

Off-road Equipment - 1 grader for 8 hrs; 1 off-highway (water) truck for 8 hrs, 1 roller for 6 hrs

Off-road Equipment - 2 excavators for 6 hrs; 2 graders for 6 hrs; 2 off-highway (water) truck for 7 hrs, 2 rubber tired dozers; 3 scrapers for 6 hrs; 2 skid steer loaders for 6 hrs; 2 tractor/loader/backhoe for 6 hrs

Trips and VMT - Anticipated Worker, Vendor and Haul Truck Trips Included

On-road Fugitive Dust - All public roads traveled to the Project will be paved. Travel on unpaved private road are calculated in a separate workbook

Grading - Approx 438 acres graded total during grading for the Fixed Frame Array

Vehicle Trips - Anticipated Worker, Vendor and Haul Truck Trips Included

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Road Dust -

Consumer Products - None

Area Coating - None

Energy Use - The fixed-frame array would expect to consume 250 kW-hrs of electrical energy daily

Water And Wastewater - 10 acre-feet per year

Construction Off-road Equipment Mitigation - Watering will occur two time per day on exposed areas

Operational Off-Road Equipment - *

Fleet Mix - *

Table Name	Column Name	Default Value	New Value
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstructionPhase	NumDays	310.00	18.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblEnergyUse	T24E	0.00	0.02

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Annual

tblGrading	AcresOfGrading	54.00	438.00
tblLandUse	BuildingSpaceSquareFeet	0.00	6,359,760.00
tblLandUse	LandUseSquareFeet	0.00	6,359,760.00
tblLandUse	LotAcreage	0.00	146.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	6.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblProjectCharacteristics	OperationalYear	2018	2020
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	WorkerTripNumber	38.00	104.00
tblVehicleTrips	CW_TTP	0.00	100.00

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Annual

tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	0.07
tblVehicleTrips	WD_TR	0.00	0.07
tblWater	OutdoorWaterUseRate	0.00	3,258,514.27

2.0 Emissions Summary

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Annual

2.1 Overall Construction**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr												MT/yr			
2018	0.0736	0.7911	0.4722	9.3000e-004	0.3192	0.0329	0.3521	0.0713	0.0303	0.1016	0.0000	84.9391	84.9391	0.0250	0.0000	85.5633
Maximum	0.0736	0.7911	0.4722	9.3000e-004	0.3192	0.0329	0.3521	0.0713	0.0303	0.1016	0.0000	84.9391	84.9391	0.0250	0.0000	85.5633

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr												MT/yr			
2018	0.0736	0.7911	0.4722	9.3000e-004	0.1467	0.0329	0.1797	0.0329	0.0303	0.0632	0.0000	84.9390	84.9390	0.0250	0.0000	85.5632
Maximum	0.0736	0.7911	0.4722	9.3000e-004	0.1467	0.0329	0.1797	0.0329	0.0303	0.0632	0.0000	84.9390	84.9390	0.0250	0.0000	85.5632

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	54.03	0.00	48.97	53.84	0.00	37.78	0.00	0.00	0.00	0.00	0.00	0.00

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	4-1-2018	6-30-2018	0.8654	0.8654
		Highest	0.8654	0.8654

2.2 Overall OperationalUnmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Area	1.3000e-004	1.0000e-005	1.3500e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.6100e-003	2.6100e-003	1.0000e-005	0.0000	2.7800e-003	
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	73.3243	73.3243	1.6700e-003	3.5000e-004	73.4693	
Mobile	5.0900e-003	0.0390	0.0572	1.5000e-004	3.9799	1.3000e-004	3.9800	0.3972	1.2000e-004	0.3973	0.0000	13.4297	13.4297	1.0800e-003	0.0000	13.4566	
Offroad	0.0647	0.6165	0.3715	1.2900e-003		0.0225	0.0225		0.0207	0.0207	0.0000	113.0948	113.0948	0.0366	0.0000	114.0092	
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Water						0.0000	0.0000		0.0000	0.0000	0.0000	20.8694	20.8694	4.8000e-004	1.0000e-004	20.9107	
Total	0.0699	0.6555	0.4300	1.4400e-003	3.9799	0.0226	4.0025	0.3972	0.0208	0.4180	0.0000	220.7208	220.7208	0.0398	4.5000e-004	221.8485	

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Annual

2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Area	1.3000e-004	1.0000e-005	1.3500e-003	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	2.6100e-003	2.6100e-003	1.0000e-005	0.0000	2.7800e-003		
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	73.3243	73.3243	1.6700e-003	3.5000e-004	73.4693		
Mobile	5.0900e-003	0.0390	0.0572	1.5000e-004	3.9799	1.3000e-004	3.9800	0.3972	1.2000e-004	0.3973	0.0000	13.4297	13.4297	1.0800e-003	0.0000	13.4566	
Offroad	0.0647	0.6165	0.3715	1.2900e-003		0.0225	0.0225		0.0207	0.0207	0.0000	113.0948	113.0948	0.0366	0.0000	114.0092	
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Water						0.0000	0.0000		0.0000	0.0000	0.0000	20.8694	20.8694	4.8000e-004	1.0000e-004	20.9107	
Total	0.0699	0.6555	0.4300	1.4400e-003	3.9799	0.0226	4.0025	0.3972	0.0208	0.4180	0.0000	220.7208	220.7208	0.0398	4.5000e-004	221.8485	

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	4/15/2018	5/5/2018	6	18	

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Annual

Acres of Grading (Site Preparation Phase): 0**Acres of Grading (Grading Phase): 438****Acres of Paving: 0****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	2	6.00	158	0.38
Grading	Graders	2	6.00	187	0.41
Grading	Off-Highway Trucks	2	7.00	402	0.38
Grading	Rubber Tired Dozers	2	6.00	247	0.40
Grading	Scrapers	3	6.00	367	0.48
Grading	Skid Steer Loaders	2	6.00	65	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	15	104.00	6.00	4.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Annual

3.2 Grading - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Fugitive Dust					0.3136	0.0000	0.3136	0.0698	0.0000	0.0698	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	0.0669	0.7780	0.4236	8.6000e-004		0.0328	0.0328		0.0302	0.0302	0.0000	78.4882	78.4882	0.0244	0.0000	79.0990	
Total	0.0669	0.7780	0.4236	8.6000e-004	0.3136	0.0328	0.3464	0.0698	0.0302	0.1000	0.0000	78.4882	78.4882	0.0244	0.0000	79.0990	

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	1.0000e-005	5.5000e-004	7.0000e-005	0.0000	3.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1497	0.1497	1.0000e-005	0.0000	0.1498	
Vendor	3.1000e-004	7.5000e-003	2.2900e-003	2.0000e-005	4.4000e-004	6.0000e-005	5.1000e-004	1.3000e-004	6.0000e-005	1.9000e-004	0.0000	1.6643	1.6643	1.0000e-004	0.0000	1.6668	
Worker	6.3300e-003	5.0400e-003	0.0462	5.0000e-005	5.1600e-003	4.0000e-005	5.2000e-003	1.3700e-003	4.0000e-005	1.4100e-003	0.0000	4.6370	4.6370	4.2000e-004	0.0000	4.6476	
Total	6.6500e-003	0.0131	0.0486	7.0000e-005	5.6300e-003	1.0000e-004	5.7500e-003	1.5100e-003	1.0000e-004	1.6100e-003	0.0000	6.4510	6.4510	5.3000e-004	0.0000	6.4642	

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Annual

3.2 Grading - 2018**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Fugitive Dust					0.1411	0.0000	0.1411	0.0314	0.0000	0.0314	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	0.0669	0.7780	0.4236	8.6000e-004		0.0328	0.0328		0.0302	0.0302	0.0000	78.4881	78.4881	0.0244	0.0000	79.0989	
Total	0.0669	0.7780	0.4236	8.6000e-004	0.1411	0.0328	0.1739	0.0314	0.0302	0.0616	0.0000	78.4881	78.4881	0.0244	0.0000	79.0989	

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	1.0000e-005	5.5000e-004	7.0000e-005	0.0000	3.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1497	0.1497	1.0000e-005	0.0000	0.1498	
Vendor	3.1000e-004	7.5000e-003	2.2900e-003	2.0000e-005	4.4000e-004	6.0000e-005	5.1000e-004	1.3000e-004	6.0000e-005	1.9000e-004	0.0000	1.6643	1.6643	1.0000e-004	0.0000	1.6668	
Worker	6.3300e-003	5.0400e-003	0.0462	5.0000e-005	5.1600e-003	4.0000e-005	5.2000e-003	1.3700e-003	4.0000e-005	1.4100e-003	0.0000	4.6370	4.6370	4.2000e-004	0.0000	4.6476	
Total	6.6500e-003	0.0131	0.0486	7.0000e-005	5.6300e-003	1.0000e-004	5.7500e-003	1.5100e-003	1.0000e-004	1.6100e-003	0.0000	6.4510	6.4510	5.3000e-004	0.0000	6.4642	

4.0 Operational Detail - Mobile

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Annual

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.0900e-003	0.0390	0.0572	1.5000e-004	3.9799	1.3000e-004	3.9800	0.3972	1.2000e-004	0.3973	0.0000	13.4297	13.4297	1.0800e-003	0.0000	13.4566
Unmitigated	5.0900e-003	0.0390	0.0572	1.5000e-004	3.9799	1.3000e-004	3.9800	0.3972	1.2000e-004	0.3973	0.0000	13.4297	13.4297	1.0800e-003	0.0000	13.4566

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated		Mitigated	
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT	Annual VMT	Annual VMT
User Defined Industrial	10.22	10.22	0.00	21,364	21,364	21,364	21,364
Total	10.22	10.22	0.00	21,364	21,364	21,364	21,364

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	6.70	5.00	8.90	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.503420	0.033264	0.160883	0.129541	0.018929	0.005318	0.019165	0.118376	0.003239	0.001168	0.005214	0.000745	0.000738

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Annual

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Annual

5.2 Energy by Land Use - NaturalGas

Unmitigated

Mitigated

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Annual

5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	127195	73.3243	1.6700e-003	3.5000e-004	73.4693
Total		73.3243	1.6700e-003	3.5000e-004	73.4693

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	127195	73.3243	1.6700e-003	3.5000e-004	73.4693
Total		73.3243	1.6700e-003	3.5000e-004	73.4693

6.0 Area Detail**6.1 Mitigation Measures Area**

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Mitigated	1.3000e-004	1.0000e-005	1.3500e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.6100e-003	2.6100e-003	1.0000e-005	0.0000	2.7800e-003	
Unmitigated	1.3000e-004	1.0000e-005	1.3500e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.6100e-003	2.6100e-003	1.0000e-005	0.0000	2.7800e-003	

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	tons/yr											MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Landscaping	1.3000e-004	1.0000e-005	1.3500e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.6100e-003	2.6100e-003	1.0000e-005	0.0000	2.7800e-003	
Total	1.3000e-004	1.0000e-005	1.3500e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.6100e-003	2.6100e-003	1.0000e-005	0.0000	2.7800e-003	

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Annual

6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3000e-004	1.0000e-005	1.3500e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.6100e-003	2.6100e-003	1.0000e-005	0.0000	2.7800e-003
Total	1.3000e-004	1.0000e-005	1.3500e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.6100e-003	2.6100e-003	1.0000e-005	0.0000	2.7800e-003

7.0 Water Detail**7.1 Mitigation Measures Water**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	20.8694	4.8000e-004	1.0000e-004	20.9107
Unmitigated	20.8694	4.8000e-004	1.0000e-004	20.9107

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Annual

7.2 Water by Land Use**Unmitigated**

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined	0 /	20.8694	4.8000e-004	1.0000e-004	20.9107
Industrial	3.25851				
Total		20.8694	4.8000e-004	1.0000e-004	20.9107

Mitigated

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined	0 /	20.8694	4.8000e-004	1.0000e-004	20.9107
Industrial	3.25851				
Total		20.8694	4.8000e-004	1.0000e-004	20.9107

8.0 Waste Detail**8.1 Mitigation Measures Waste**

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Annual

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land UseUnmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Annual

8.2 Waste by Land Use**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Off-Highway Trucks	1	6.00	260	402	0.38	Diesel

Seville 4 Solar Project - Fixed Frame Array - Imperial County, Annual

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Equipment Type	tons/yr											MT/yr					
Off-Highway Trucks	0.0647	0.6165	0.3715	1.2900e-003		0.0225	0.0225		0.0207	0.0207	0.0000	113.0948	113.0948	0.0366	0.0000	114.0092	
Total	0.0647	0.6165	0.3715	1.2900e-003		0.0225	0.0225		0.0207	0.0207	0.0000	113.0948	113.0948	0.0366	0.0000	114.0092	

10.0 Stationary EquipmentFire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

ATTACHMENT B-7
SEVILLE 4 SOLAR PROJECT
HSAT CONSTRUCTION & OPERATION ACTIVITIES
CalEEMod MODEL OUTPUTS – MITIGATION REPORT
MODEL “SEVILLE 4 CALEEMOD V04 HSAT.xls”

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Seville 4 Solar Project - HSAT
Imperial County, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Access Road Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GenTie Line Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Inverter Installation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rack Installation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar Panel Installation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substation Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
System Wiring and Trenching	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Aerial Lifts	Diesel	No Change	0	5	No Change	0.00
Cranes	Diesel	No Change	0	1	No Change	0.00
Crawler Tractors	Diesel	No Change	0	2	No Change	0.00
Excavators	Diesel	No Change	0	2	No Change	0.00
Forklifts	Diesel	No Change	0	0	No Change	0.00
Generator Sets	Diesel	No Change	0	5	No Change	0.00
Graders	Diesel	No Change	0	3	No Change	0.00
Off-Highway Trucks	Diesel	No Change	0	7	No Change	0.00
Other General Industrial Equipment	Diesel	No Change	0	11	No Change	0.00
Rollers	Diesel	No Change	0	1	No Change	0.00
Rubber Tired Dozers	Diesel	No Change	0	2	No Change	0.00
Scrapers	Diesel	No Change	0	3	No Change	0.00
Skid Steer Loaders	Diesel	No Change	0	10	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	3	No Change	0.00
Trenchers	Diesel	No Change	0	4	No Change	0.00
Welders	Diesel	No Change	0	0	No Change	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Aerial Lifts	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.20828E-006	1.20828E-006	0.00000E+000	0.00000E+000	1.19895E-006
Cranes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.05477E-006	1.05477E-006	0.00000E+000	0.00000E+000	1.04662E-006
Crawler Tractors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.16219E-006	1.16219E-006	0.00000E+000	0.00000E+000	1.15321E-006
Excavators	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.57150E-006	1.57150E-006	0.00000E+000	0.00000E+000	1.55936E-006
Forklifts	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Generator Sets	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.20975E-006	1.20975E-006	0.00000E+000	0.00000E+000	1.05663E-006
Graders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	8.43795E-007	8.43795E-007	0.00000E+000	0.00000E+000	8.37278E-007
Off-Highway Trucks	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.23804E-006	1.23804E-006	0.00000E+000	0.00000E+000	1.22848E-006
Other General Industrial Equipment	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.26358E-006	1.26358E-006	0.00000E+000	0.00000E+000	1.25382E-006
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rubber Tired Dozers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	9.49258E-007	9.49258E-007	0.00000E+000	0.00000E+000	1.88385E-006
Scrapers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.07100E-006	1.07100E-006	0.00000E+000	0.00000E+000	1.06273E-006
Skid Steer Loaders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.46076E-006	1.46076E-006	0.00000E+000	0.00000E+000	1.15958E-006
Tractors/Loaders/Buckets	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	2.23764E-006	2.23764E-006	0.00000E+000	0.00000E+000	1.11018E-006
Trenchers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.27291E-006	1.27291E-006	0.00000E+000	0.00000E+000	1.26308E-006
Welders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000

Fugitive Dust Mitigation

Yes/No Mitigation Measure

Mitigation Input

Mitigation Input

Mitigation Input

No	Soil Stabilizer for unpaved Roads	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
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No	Replace Ground Cover of Area Disturbed	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
Yes	Water Exposed Area	PM10 Reduction	55.00	PM2.5 Reduction	55.00	Frequency (per day)	2.00
No	Unpaved Road Mitigation	Moisture Content %	0.50	Vehicle Speed (mph)	40.00		
Yes	Clean Paved Road	% PM Reduction	0.00				

Phase	Source	Unmitigated		Mitigated		Percent Reduction	
		PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Access Road Construction	Fugitive Dust	0.01	0.00	0.00	0.00	0.55	0.54
Access Road Construction	Roads	0.00	0.00	0.00	0.00	0.00	0.00
GenTie Line Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
GenTie Line Construction	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Grading	Fugitive Dust	0.36	0.07	0.16	0.03	0.55	0.55
Grading	Roads	0.01	0.00	0.01	0.00	0.00	0.00
Inverter Installation	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Inverter Installation	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Rack Installation	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Rack Installation	Roads	0.02	0.00	0.02	0.00	0.00	0.00
Solar Panel Installation	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Solar Panel Installation	Roads	0.02	0.00	0.02	0.00	0.00	0.00
Substation Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Substation Construction	Roads	0.00	0.00	0.00	0.00	0.00	0.00
System Wiring and Trenching	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
System Wiring and Trenching	Roads	0.00	0.00	0.00	0.00	0.00	0.00

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	-0.01	0.13		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			

No	Land Use	Land Use SubTotal	0.00		
No	Neighborhood Enhancements	Improve Pedestrian Network			
No	Neighborhood Enhancements	Provide Traffic Calming Measures	0.00		
No	Neighborhood Enhancements	Implement NEV Network	0.00		
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal			
No	Parking Policy Pricing	Limit Parking Supply	0.00		
No	Parking Policy Pricing	Unbundle Parking Costs	0.00		
No	Parking Policy Pricing	On-street Market Pricing	0.00		
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00		
No	Transit Improvements	Provide BRT System	0.00		
No	Transit Improvements	Expand Transit Network	0.00		
No	Transit Improvements	Increase Transit Frequency	0.00		
	Transit Improvements	Transit Improvements Subtotal	0.00		
		Land Use and Site Enhancement Subtotal	0.00		
No	Commute	Implement Trip Reduction Program			
No	Commute	Transit Subsidy			
No	Commute	Implement Employee Parking "Cash Out"			
No	Commute	Workplace Parking Charge			
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00		
No	Commute	Market Commute Trip Reduction Option	0.00		
No	Commute	Employee Vanpool/Shuttle	0.00		2.00
No	Commute	Provide Ride Sharing Program			

	Commute	Commute Subtotal	0.00		
No	School Trip	Implement School Bus Program	0.00		
		Total VMT Reduction	0.00		

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	100.00
No	Use Low VOC Paint (Residential Exterior)	100.00
No	Use Low VOC Paint (Non-residential Interior)	150.00
No	Use Low VOC Paint (Non-residential Exterior)	150.00
No	Use Low VOC Paint (Parking)	150.00
No	% Electric Lawnmower	
No	% Electric Leafblower	
No	% Electric Chainsaw	

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Exceed Title 24		
No	Install High Efficiency Lighting		
No	On-site Renewable		

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy		
No	Use Reclaimed Water		
No	Use Grey Water		
No	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	
No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction		
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape		

Solid Waste Mitigation

Mitigation Measures	Input Value

Institute Recycling and Composting Services
Percent Reduction in Waste Disposed

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ATTACHMENT B-8

SEVILLE 4 SOLAR PROJECT

FIXED FRAME CONSTRUCTION & OPERATION ACTIVITIES

CalEEMod MODEL OUTPUTS – MITIGATION REPORT
MODEL “SEVILLE 4 CALEEMOD V04 FF.xls”

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Seville 4 Solar Project - Fixed Frame Array
Imperial County, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Grading	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Excavators	Diesel	No Change	0	2	No Change	0.00
Graders	Diesel	No Change	0	2	No Change	0.00
Off-Highway Trucks	Diesel	No Change	0	2	No Change	0.00
Rubber Tired Dozers	Diesel	No Change	0	2	No Change	0.00
Scrapers	Diesel	No Change	0	3	No Change	0.00
Skid Steer Loaders	Diesel	No Change	0	2	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	2	No Change	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Unmitigated tons/yr							Unmitigated mt/yr					
Excavators	3.90000E-003	4.17900E-002	4.42200E-002	7.00000E-005	2.03000E-003	1.86000E-003	0.00000E+000	6.36336E+000	6.36336E+000	1.98000E-003	0.00000E+000	6.41288E+000
Graders	7.02000E-003	9.62200E-002	2.58500E-002	9.00000E-005	3.13000E-003	2.88000E-003	0.00000E+000	8.20469E+000	8.20469E+000	2.55000E-003	0.00000E+000	8.26855E+000
Off-Highway Trucks	1.21800E-002	1.31120E-001	6.61800E-002	2.10000E-004	4.79000E-003	4.40000E-003	0.00000E+000	1.89978E+001	1.89978E+001	5.91000E-003	0.00000E+000	1.91456E+001
Rubber Tired Dozers	1.57400E-002	1.69560E-001	5.90800E-002	1.20000E-004	8.24000E-003	7.58000E-003	0.00000E+000	1.05345E+001	1.05345E+001	3.28000E-003	0.00000E+000	1.06165E+001
Scrapers	2.32300E-002	2.87380E-001	1.77930E-001	3.10000E-004	1.13300E-002	1.04200E-002	0.00000E+000	2.80113E+001	2.80113E+001	8.72000E-003	0.00000E+000	2.82293E+001
Skid Steer Loaders	1.24000E-003	1.63800E-002	1.87900E-002	3.00000E-005	8.00000E-004	7.40000E-004	0.00000E+000	2.54594E+000	2.54594E+000	7.90000E-004	0.00000E+000	2.56575E+000
Tractors/Loaders/Backhoes	3.59000E-003	3.55000E-002	3.15500E-002	4.00000E-005	2.52000E-003	2.31000E-003	0.00000E+000	3.83057E+000	3.83057E+000	1.19000E-003	0.00000E+000	3.86038E+000

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Mitigated tons/yr							Mitigated mt/yr					
Excavators	3.90000E-003	4.17900E-002	4.42200E-002	7.00000E-005	2.03000E-003	1.86000E-003	0.00000E+000	6.36335E+000	6.36335E+000	1.98000E-003	0.00000E+000	6.41287E+000
Graders	7.02000E-003	9.62200E-002	2.58500E-002	9.00000E-005	3.13000E-003	2.88000E-003	0.00000E+000	8.20468E+000	8.20468E+000	2.55000E-003	0.00000E+000	8.26854E+000
Off-Highway Trucks	1.21800E-002	1.31120E-001	6.61800E-002	2.10000E-004	4.79000E-003	4.40000E-003	0.00000E+000	1.89977E+001	1.89977E+001	5.91000E-003	0.00000E+000	1.91456E+001
Rubber Tired Dozers	1.57400E-002	1.69560E-001	5.90800E-002	1.20000E-004	8.24000E-003	7.58000E-003	0.00000E+000	1.05345E+001	1.05345E+001	3.28000E-003	0.00000E+000	1.06165E+001
Scrapers	2.32300E-002	2.87380E-001	1.77930E-001	3.10000E-004	1.13300E-002	1.04200E-002	0.00000E+000	2.80113E+001	2.80113E+001	8.72000E-003	0.00000E+000	2.82293E+001
Skid Steer Loaders	1.24000E-003	1.63800E-002	1.87900E-002	3.00000E-005	8.00000E-004	7.40000E-004	0.00000E+000	2.54593E+000	2.54593E+000	7.90000E-004	0.00000E+000	2.56575E+000
Tractors/Loaders/Ba ckhoes	3.59000E-003	3.55000E-002	3.15500E-002	4.00000E-005	2.52000E-003	2.31000E-003	0.00000E+000	3.83056E+000	3.83056E+000	1.19000E-003	0.00000E+000	3.86037E+000

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Excavators	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.57150E-006	1.57150E-006	0.00000E+000	0.00000E+000	1.55936E-006
Graders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.21882E-006	1.21882E-006	0.00000E+000	0.00000E+000	1.20940E-006
Off-Highway Trucks	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.57913E-006	1.57913E-006	0.00000E+000	0.00000E+000	1.04463E-006
Rubber Tired Dozers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	9.49258E-007	9.49258E-007	0.00000E+000	0.00000E+000	1.88385E-006
Scrapers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.07100E-006	1.07100E-006	0.00000E+000	0.00000E+000	1.06273E-006
Skid Steer Loaders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	3.92782E-006	3.92782E-006	0.00000E+000	0.00000E+000	0.00000E+000
Tractors/Loaders/Buckets/hoes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	2.61058E-006	2.61058E-006	0.00000E+000	0.00000E+000	2.59042E-006

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input	Mitigation Input	Mitigation Input
--------	--------------------	------------------	------------------	------------------

No	Soil Stabilizer for unpaved Roads	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
No	Replace Ground Cover of Area Disturbed	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
Yes	Water Exposed Area	PM10 Reduction	55.00	PM2.5 Reduction	55.00	Frequency (per day)	2.00
No	Unpaved Road Mitigation	Moisture Content %	0.50	Vehicle Speed (mph)	40.00		
Yes	Clean Paved Road	% PM Reduction	0.00				

Phase	Source	Unmitigated		Mitigated		Percent Reduction	
		PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Grading	Fugitive Dust	0.31	0.07	0.14	0.03	0.55	0.55
Grading	Roads	0.01	0.00	0.01	0.00	0.00	0.00

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
	Percent Reduction											
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	-0.01	0.13		

No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			
No	Neighborhood Enhancements	Improve Pedestrian Network				
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.00			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"				
No	Commute	Workplace Parking Charge				

No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00		
No	Commute	Market Commute Trip Reduction Option	0.00		
No	Commute	Employee Vanpool/Shuttle	0.00		2.00
No	Commute	Provide Ride Sharing Program			
	Commute	Commute Subtotal	0.00		
No	School Trip	Implement School Bus Program	0.00		
		Total VMT Reduction	0.00		

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	100.00
No	Use Low VOC Paint (Residential Exterior)	100.00
No	Use Low VOC Paint (Non-residential Interior)	150.00
No	Use Low VOC Paint (Non-residential Exterior)	150.00
No	Use Low VOC Paint (Parking)	150.00
No	% Electric Lawnmower	
No	% Electric Leafblower	
No	% Electric Chainsaw	

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	:Exceed Title 24		
No	:Install High Efficiency Lighting		
No	:On-site Renewable		

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	:Apply Water Conservation on Strategy		
No	:Use Reclaimed Water		
No	:Use Grey Water		
No	:Install low-flow bathroom faucet	32.00	
No	:Install low-flow Kitchen faucet	18.00	
No	:Install low-flow Toilet	20.00	
No	:Install low-flow Shower	20.00	
No	:Turf Reduction		
No	:Use Water Efficient Irrigation Systems	6.10	
No	:Water Efficient Landscape		

Solid Waste Mitigation

Mitigation Measures	Input Value
Institute Recycling and Composting Services Percent Reduction in Waste Disposed	

ATTACHMENT C

AP-42 UNPAVED (PRIVATE) INDUSTRIAL ROAD CALCULATIONS

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Access Rd Construc Site Dust

Construction Fugitive Dust Emissions from Unpaved Roads

(Emission Factor Source: AP-42 (5th Ed. - 11/06) §13.2.2 - Unpaved Industrial Roads)

$$EF_{PM} \text{ (lbs/VMT)} = ((4.9)^*((s/12)^{0.7})^*((W/3)^{0.45})$$

$$EF_{PM10} \text{ (lbs/VMT)} = ((1.5)^*((s/12)^{0.9})^*((W/3)^{0.45})$$

$$EF_{PM2.5} \text{ (lbs/VMT)} = ((0.15)^*((s/12)^{0.9})^*((W/3)^{0.45})$$

Where:

s = Silt content of road surface material (%)

M = Surface material moisture content (%)

W = Mean Vehicle Weight (tons)

Road Segment	Silt Content	Moisture Content	Vehicle Weight (tons)	PM Emission Factor (lb/VMT)	PM ₁₀ Emission Factor (lb/VMT)	PM _{2.5} Emission Factor (lb/VMT)	VMT per day	Emission Controls		Controlled Emissions (lbs/day)		
								ECF	Technology	PM	PM ₁₀	PM _{2.5}
On-Site Roads	8.5	0.5	4.00	4.3811	1.2518	0.1252	57.60	61%	3 x Water	98.42	28.12	2.81

Grading Construc Site Dust

Construction Fugitive Dust Emissions from Unpaved Roads

(Emission Factor Source: AP-42 (5th Ed. - 11/06) §13.2.2 - Unpaved Industrial Roads)

$$EF_{PM} \text{ (lbs/VMT)} = ((4.9)^*((s/12)^{0.7})^*((W/3)^{0.45})$$

$$EF_{PM10} \text{ (lbs/VMT)} = ((1.5)^*((s/12)^{0.9})^*((W/3)^{0.45})$$

$$EF_{PM2.5} \text{ (lbs/VMT)} = ((0.15)^*((s/12)^{0.9})^*((W/3)^{0.45})$$

Where:

s = Silt content of road surface material (%)

M = Surface material moisture content (%)

W = Mean Vehicle Weight (tons)

Road Segment	Silt Content	Moisture Content	Vehicle Weight (tons)	PM Emission Factor (lb/VMT)	PM ₁₀ Emission Factor (lb/VMT)	PM _{2.5} Emission Factor (lb/VMT)	VMT per day	Emission Controls		Controlled Emissions (lbs/day)		
								ECF	Technology	PM	PM ₁₀	PM _{2.5}
On-Site Roads	8.5	0.5	4.00	4.3811	1.2518	0.1252	307.80	61%	3 x Water	525.92	150.27	15.03

Racking Inst Constrc Site Dust 1

Construction Fugitive Dust Emissions from Unpaved Roads

(Emission Factor Source: AP-42 (5th Ed. - 11/06) §13.2.2 - Unpaved Industrial Roads)

$$EF_{PM} \text{ (lbs/VMT)} = ((4.9)^*((s/12)^{0.7})^*((W/3)^{0.45})$$

$$EF_{PM10} \text{ (lbs/VMT)} = ((1.5)^*((s/12)^{0.9})^*((W/3)^{0.45})$$

$$EF_{PM2.5} \text{ (lbs/VMT)} = ((0.15)^*((s/12)^{0.9})^*((W/3)^{0.45})$$

Where:

s = Silt content of road surface material (%)

M = Surface material moisture content (%)

W = Mean Vehicle Weight (tons)

Road Segment	Silt Content	Moisture Content	Vehicle Weight (tons)	PM Emission Factor (lb/VMT)	PM ₁₀ Emission Factor (lb/VMT)	PM _{2.5} Emission Factor (lb/VMT)	VMT per day	Emission Controls		Controlled Emissions (lbs/day)		
								ECF	Technology	PM	PM ₁₀	PM _{2.5}
On-Site Roads	8.5	0.5	4.00	4.3811	1.2518	0.1252	329.40	61%	3 x Water	562.82	160.81	16.08

Racking Inst Constrc Site Dust 2

Construction Fugitive Dust Emissions from Unpaved Roads

(Emission Factor Source: AP-42 (5th Ed. - 11/06) §13.2.2 - Unpaved Industrial Roads)

$$EF_{PM} \text{ (lbs/VMT)} = ((4.9)^*((s/12)^{0.7})^*((W/3)^{0.45})$$

$$EF_{PM10} \text{ (lbs/VMT)} = ((1.5)^*((s/12)^{0.9})^*((W/3)^{0.45})$$

$$EF_{PM2.5} \text{ (lbs/VMT)} = ((0.15)^*((s/12)^{0.9})^*((W/3)^{0.45})$$

Where:

s = Silt content of road surface material (%)

M = Surface material moisture content (%)

W = Mean Vehicle Weight (tons)

Road Segment	Silt Content	Moisture Content	Vehicle Weight (tons)	PM Emission Factor (lb/VMT)	PM ₁₀ Emission Factor (lb/VMT)	PM _{2.5} Emission Factor (lb/VMT)	VMT per day	Emission Controls		Controlled Emissions (lbs/day)		
								ECF	Technology	PM	PM ₁₀	PM _{2.5}
On-Site Roads	8.5	0.5	4.00	4.3811	1.2518	0.1252	10.00	61%	3 x Water	17.09	4.88	0.49

Panel Insta Constrc Site Dust 1

Construction Fugitive Dust Emissions from Unpaved Roads

(Emission Factor Source: AP-42 (5th Ed. - 11/06) §13.2.2 - Unpaved Industrial Roads)

$$EF_{PM} \text{ (lbs/VMT)} = ((4.9)^*((s/12)^{0.7})^*((W/3)^{0.45}))$$

$$EF_{PM10} \text{ (lbs/VMT)} = ((1.5)^*((s/12)^{0.9})^*((W/3)^{0.45}))$$

$$EF_{PM2.5} \text{ (lbs/VMT)} = ((0.15)^*((s/12)^{0.9})^*((W/3)^{0.45}))$$

Where:

s = Silt content of road surface material (%)

M = Surface material moisture content (%)

W = Mean Vehicle Weight (tons)

Road Segment	Silt Content	Moisture Content	Vehicle Weight (tons)	PM Emission Factor (lb/VMT)	PM ₁₀ Emission Factor (lb/VMT)	PM _{2.5} Emission Factor (lb/VMT)	VMT per day	Emission Controls		Controlled Emissions (lbs/day)		
								ECF	Technology	PM	PM ₁₀	PM _{2.5}
On-Site Roads	8.5	0.5	4.00	4.3811	1.2518	0.1252	329.40	61%	3 x Water	562.82	160.81	16.08

Panel Insta Constrc Site Dust 2

Construction Fugitive Dust Emissions from Unpaved Roads

(Emission Factor Source: AP-42 (5th Ed. - 11/06) §13.2.2 - Unpaved Industrial Roads)

$$EF_{PM} \text{ (lbs/VMT)} = ((4.9)^*((s/12)^{0.7})^*((W/3)^{0.45})$$

$$EF_{PM10} \text{ (lbs/VMT)} = ((1.5)^*((s/12)^{0.9})^*((W/3)^{0.45})$$

$$EF_{PM2.5} \text{ (lbs/VMT)} = ((0.15)^*((s/12)^{0.9})^*((W/3)^{0.45})$$

Where:

s = Silt content of road surface material (%)

M = Surface material moisture content (%)

W = Mean Vehicle Weight (tons)

Road Segment	Silt Content	Moisture Content	Vehicle Weight (tons)	PM Emission Factor (lb/VMT)	PM ₁₀ Emission Factor (lb/VMT)	PM _{2.5} Emission Factor (lb/VMT)	VMT per day	Emission Controls		Controlled Emissions (lbs/day)		
								ECF	Technology	PM	PM ₁₀	PM _{2.5}
On-Site Roads	8.5	0.5	4.00	4.3811	1.2518	0.1252	10.00	61%	3 x Water	17.09	4.88	0.49

Wire&Trench Constrc Site Dust 1

Construction Fugitive Dust Emissions from Unpaved Roads

(Emission Factor Source: AP-42 (5th Ed. - 11/06) §13.2.2 - Unpaved Industrial Roads)

$$EF_{PM} \text{ (lbs/VMT)} = ((4.9)^*((s/12)^{0.7})^*((W/3)^{0.45}))$$

$$EF_{PM10} \text{ (lbs/VMT)} = ((1.5)^*((s/12)^{0.9})^*((W/3)^{0.45}))$$

$$EF_{PM2.5} \text{ (lbs/VMT)} = ((0.15)^*((s/12)^{0.9})^*((W/3)^{0.45}))$$

Where:

s = Silt content of road surface material (%)

M = Surface material moisture content (%)

W = Mean Vehicle Weight (tons)

Road Segment	Silt Content	Moisture Content	Vehicle Weight (tons)	PM Emission Factor (lb/VMT)	PM ₁₀ Emission Factor (lb/VMT)	PM _{2.5} Emission Factor (lb/VMT)	VMT per day	Emission Controls		Controlled Emissions (lbs/day)		
								ECF	Technology	PM	PM ₁₀	PM _{2.5}
On-Site Roads	8.5	0.5	4.00	4.3811	1.2518	0.1252	113.40	61%	3 x Water	193.76	55.36	5.54

Wire&Trench Constrc Site Dust 2

Construction Fugitive Dust Emissions from Unpaved Roads

(Emission Factor Source: AP-42 (5th Ed. - 11/06) §13.2.2 - Unpaved Industrial Roads)

$$EF_{PM} \text{ (lbs/VMT)} = ((4.9)^*((s/12)^{0.7})^*((W/3)^{0.45})$$

$$EF_{PM10} \text{ (lbs/VMT)} = ((1.5)^*((s/12)^{0.9})^*((W/3)^{0.45})$$

$$EF_{PM2.5} \text{ (lbs/VMT)} = ((0.15)^*((s/12)^{0.9})^*((W/3)^{0.45})$$

Where:

s = Silt content of road surface material (%)

M = Surface material moisture content (%)

W = Mean Vehicle Weight (tons)

Road Segment	Silt Content	Moisture Content	Vehicle Weight (tons)	PM Emission Factor (lb/VMT)	PM ₁₀ Emission Factor (lb/VMT)	PM _{2.5} Emission Factor (lb/VMT)	VMT per day	Emission Controls		Controlled Emissions (lbs/day)		
								ECF	Technology	PM	PM ₁₀	PM _{2.5}
On-Site Roads	8.5	0.5	4.00	4.3811	1.2518	0.1252	10.00	61%	3 x Water	17.09	4.88	0.49

Inverter Constrc Site Dust 1

Construction Fugitive Dust Emissions from Unpaved Roads

(Emission Factor Source: AP-42 (5th Ed. - 11/06) §13.2.2 - Unpaved Industrial Roads)

$$EF_{PM} \text{ (lbs/VMT)} = ((4.9)^*((s/12)^{0.7})^*((W/3)^{0.45}))$$

$$EF_{PM10} \text{ (lbs/VMT)} = ((1.5)^*((s/12)^{0.9})^*((W/3)^{0.45}))$$

$$EF_{PM2.5} \text{ (lbs/VMT)} = ((0.15)^*((s/12)^{0.9})^*((W/3)^{0.45}))$$

Where:

s = Silt content of road surface material (%)

M = Surface material moisture content (%)

W = Mean Vehicle Weight (tons)

Road Segment	Silt Content	Moisture Content	Vehicle Weight (tons)	PM Emission Factor (lb/VMT)	PM ₁₀ Emission Factor (lb/VMT)	PM _{2.5} Emission Factor (lb/VMT)	VMT per day	Emission Controls		Controlled Emissions (lbs/day)		
								ECF	Technology	PM	PM ₁₀	PM _{2.5}
On-Site Roads	8.5	0.5	4.00	4.3811	1.2518	0.1252	86.40	61%	3 x Water	147.63	42.18	4.22

Inverter Constrc Site Dust 2

Construction Fugitive Dust Emissions from Unpaved Roads

(Emission Factor Source: AP-42 (5th Ed. - 11/06) §13.2.2 - Unpaved Industrial Roads)

$$EF_{PM} \text{ (lbs/VMT)} = ((4.9)^*((s/12)^{0.7})^*((W/3)^{0.45})$$

$$EF_{PM10} \text{ (lbs/VMT)} = ((1.5)^*((s/12)^{0.9})^*((W/3)^{0.45})$$

$$EF_{PM2.5} \text{ (lbs/VMT)} = ((0.15)^*((s/12)^{0.9})^*((W/3)^{0.45})$$

Where:

s = Silt content of road surface material (%)

M = Surface material moisture content (%)

W = Mean Vehicle Weight (tons)

Road Segment	Silt Content	Moisture Content	Vehicle Weight (tons)	PM Emission Factor (lb/VMT)	PM ₁₀ Emission Factor (lb/VMT)	PM _{2.5} Emission Factor (lb/VMT)	VMT per day	Emission Controls		Controlled Emissions (lbs/day)		
								ECF	Technology	PM	PM ₁₀	PM _{2.5}
On-Site Roads	8.5	0.5	4.00	4.3811	1.2518	0.1252	16.00	61%	3 x Water	27.34	7.81	0.78

GenTie Line Constrc Site Dust

Construction Fugitive Dust Emissions from Unpaved Roads

(Emission Factor Source: AP-42 (5th Ed. - 11/06) §13.2.2 - Unpaved Industrial Roads)

$$EF_{PM} \text{ (lbs/VMT)} = ((4.9)^*((s/12)^{0.7})^*((W/3)^{0.45})$$

$$EF_{PM10} \text{ (lbs/VMT)} = ((1.5)^*((s/12)^{0.9})^*((W/3)^{0.45})$$

$$EF_{PM2.5} \text{ (lbs/VMT)} = ((0.15)^*((s/12)^{0.9})^*((W/3)^{0.45})$$

Where:

s = Silt content of road surface material (%)

M = Surface material moisture content (%)

W = Mean Vehicle Weight (tons)

Road Segment	Silt Content	Moisture Content	Vehicle Weight (tons)	PM Emission Factor (lb/VMT)	PM ₁₀ Emission Factor (lb/VMT)	PM _{2.5} Emission Factor (lb/VMT)	VMT per day	Emission Controls		Controlled Emissions (lbs/day)		
								ECF	Technology	PM	PM ₁₀	PM _{2.5}
On-Site Roads	8.5	0.5	4.00	4.3811	1.2518	0.1252	30.60	61%	3 x Water	52.28	14.94	1.49

Sub & Switch Constrc Site Dust

Construction Fugitive Dust Emissions from Unpaved Roads

(Emission Factor Source: AP-42 (5th Ed. - 11/06) §13.2.2 - Unpaved Industrial Roads)

$$EF_{PM} \text{ (lbs/VMT)} = ((4.9)^*((s/12)^{0.7})^*((W/3)^{0.45})$$

$$EF_{PM10} \text{ (lbs/VMT)} = ((1.5)^*((s/12)^{0.9})^*((W/3)^{0.45})$$

$$EF_{PM2.5} \text{ (lbs/VMT)} = ((0.15)^*((s/12)^{0.9})^*((W/3)^{0.45})$$

Where:

s = Silt content of road surface material (%)

M = Surface material moisture content (%)

W = Mean Vehicle Weight (tons)

Road Segment	Silt Content	Moisture Content	Vehicle Weight (tons)	PM Emission Factor (lb/VMT)	PM ₁₀ Emission Factor (lb/VMT)	PM _{2.5} Emission Factor (lb/VMT)	VMT per day	Emission Controls		Controlled Emissions (lbs/day)		
								ECF	Technology	PM	PM ₁₀	PM _{2.5}
On-Site Roads	8.5	0.5	4.00	4.3811	1.2518	0.1252	12.00	61%	3 x Water	20.50	5.86	0.59

ATTACHMENT D

**TABLES SUMMARIZING AIR POLLUTANT EMISSIONS CALCULATED BY
CALEEMOD & AP-42 FOR EACH PROJECT ACTIVITY**

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Access Road Construction 2018

Seville 4 Solar Project - Winter 2018 Access Road Construction (All-Weather) and Associated Traffic											
Winter Unmitigated	Source*	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	PM10	FUGPM2.5	EXHMPM2.5	PM2.5
Access Rd Construc. Off-Road	A	1.49	17.32	7.57	0.02		0.66	0.66		0.61	0.61
Grading Fugitive Dust	A					0.88		0.88	0.10		0.10
Onsite Unpaved Fugitive Dust	B					28.12		28.12	2.81		2.81
Access Rd Construc. Offsite Haul	A	0.01	0.27	0.04	0.001	0.02	0.00	0.02	0.00	0.00	0.01
Access Rd Construc. Offsite Vendor	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Access Rd Construc. Offsite Worker	A	0.08	0.07	0.55	0.0006	0.07	0.0005	0.07	0.02	0.0005	0.02
Total		1.57	17.66	8.16	0.02	29.09	0.67	29.75	2.93	0.61	3.54
Seville 4 Solar Project - Winter 2018 Access Road Construction (All-Weather) and Associated Traffic											
Winter Mitigated	Source*	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	PM10	FUGPM2.5	EXHMPM2.5	PM2.5
Access Rd Construc. Off-Road	A	1.49	17.32	7.57	0.02		0.66	0.66		0.61	0.61
Grading Fugitive Dust	A					0.40		0.40	0.04		0.04
Onsite Unpaved Fugitive Dust	B					28.12		28.12	2.81		2.81
Access Rd Construc. Offsite Haul	A	0.01	0.27	0.04	0.001	0.02	0.00	0.02	0.00	0.00	0.01
Access Rd Construc. Offsite Vendor	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Access Rd Construc. Offsite Worker	A	0.08	0.07	0.55	0.0006	0.07	0.0005	0.07	0.02	0.0005	0.02
Total		1.57	17.66	8.16	0.02	28.60	0.67	29.27	2.88	0.61	3.49
Seville 4 Solar Project - Summer 2018 Access Road Construction (All-Weather) and Associated Traffic											
Summer Unmitigated	Source*	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	PM10	FUGPM2.5	EXHMPM2.5	PM2.5
Access Rd Construc. Off-Road	A	1.49	17.32	7.57	0.02		0.66	0.66		0.61	0.61
Grading Fugitive Dust	A					0.88		0.88	0.10		0.10
Onsite Unpaved Fugitive Dust	B					28.12		28.12	2.81		2.81
Access Rd Construc. Offsite Haul	A	0.01	0.27	0.03	0.001	0.02	0.00	0.02	0.00	0.00	0.01
Access Rd Construc. Offsite Vendor	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Access Rd Construc. Offsite Worker	A	0.10	0.06	0.73	0.0007	0.07	0.0005	0.07	0.02	0.0005	0.02
Total		1.59	17.65	8.33	0.02	29.09	0.67	29.75	2.93	0.61	3.54
Seville 4 Solar Project - Summer 2018 Access Road Construction (All-Weather) and Associated Traffic											
Summer Mitigated	Source*	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	PM10	FUGPM2.5	EXHMPM2.5	PM2.5
Access Rd Construc. Off-Road	A	1.49	17.32	7.57	0.02		0.66	0.66		0.61	0.61
Grading Fugitive Dust	A					0.40		0.40	0.04		0.04
Onsite Unpaved Fugitive Dust	B					28.12		28.12	2.81		2.81
Access Rd Construc. Offsite Haul	A	0.01	0.27	0.03	0.001	0.02	0.00	0.02	0.00	0.00	0.01
Access Rd Construc. Offsite Vendor	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Access Rd Construc. Offsite Worker	A	0.10	0.06	0.73	0.0007	0.07	0.0005	0.07	0.02	0.0005	0.02
Total		1.59	17.65	8.33	0.02	28.60	0.67	29.27	2.88	0.61	3.49

* Source A - CalEEMod Model Results

Source B - Other Calculated Results

Grading 2018 HSAT

Seville 4 Solar Project - Winter 2018 HSAT Grading/Fencing and Associated Traffic											
Winter Unmitigated	Source	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	PM10	FUGPM2.5	EXHMPM2.5	PM2.5
Grading/Fencing Fugitive Dust	A					39.79		39.79	8.29		8.29
Onsite Unpaved Fugitive Dust	B					150.27		150.27	15.03		15.03
Grading/Fencing Off-Road	A	7.43	86.44	47.07	0.10		3.65	3.65		3.36	3.36
Grading/Fencing Offsite Haul	A	0.00	0.06	0.01	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Fencing Offsite Vendor	A	0.04	0.83	0.27	0.00	0.05	0.01	0.06	0.01	0.01	0.02
Grading/Fencing Offsite Worker	A	0.68	0.57	4.76	0.005	0.58	0.004	0.58	0.15	0.004	0.16
Total	8.15	87.90	52.11	0.10	190.68	3.66	194.34	23.48	3.37	26.85	
Winter Mitigated	Source	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	PM10	FUGPM2.5	EXHMPM2.5	PM2.5
Grading/Fencing Fugitive Dust	A					17.90		17.90	3.73		3.73
Onsite Unpaved Fugitive Dust	B					150.27		150.27	15.03		15.03
Grading/Fencing Off-Road	A	7.43	86.44	47.07	0.10		3.65	3.65		3.36	3.36
Grading/Fencing Offsite Haul	A	0.00	0.06	0.01	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Fencing Offsite Vendor	A	0.04	0.83	0.27	0.00	0.05	0.01	0.06	0.01	0.01	0.02
Grading/Fencing Offsite Worker	A	0.68	0.57	4.76	0.005	0.58	0.004	0.58	0.15	0.004	0.16
Total	8.15	87.90	52.11	0.10	168.80	3.66	172.46	18.92	3.37	22.29	
Seville 4 Solar Project - Summer 2018 Grading and Associated Traffic											
Summer Unmitigated	Source	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	PM10	FUGPM2.5	EXHMPM2.5	PM2.5
Grading/Fencing Fugitive Dust	A					39.79		39.79	8.29		8.29
Onsite Unpaved Fugitive Dust	B					150.27		150.27	15.03		15.03
Grading/Fencing Off-Road	A	7.43	86.44	47.07	0.10		3.65	3.65		3.36	3.36
Grading/Fencing Offsite Haul	A	0.00	0.06	0.01	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Fencing Offsite Vendor	A	0.03	0.81	0.24	0.00	0.05	0.01	0.06	0.01	0.01	0.02
Grading/Fencing Offsite Worker	A	0.85	0.54	6.29	0.006	0.58	0.004	0.58	0.15	0.004	0.16
Total	8.32	87.85	53.61	0.10	190.68	3.66	194.34	23.48	3.37	26.85	
Summer Mitigated	Source	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	PM10	FUGPM2.5	EXHMPM2.5	PM2.5
Grading/Fencing Fugitive Dust	A					17.90		17.90	3.73		3.73
Onsite Unpaved Fugitive Dust	B					150.27		150.27	15.03		15.03
Grading/Fencing Off-Road	A	7.43	86.44	47.07	0.10		3.65	3.65		3.36	3.36
Grading/Fencing Offsite Haul	A	0.00	0.06	0.01	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Fencing Offsite Vendor	A	0.03	0.81	0.24	0.00	0.05	0.01	0.06	0.01	0.01	0.02
Grading/Fencing Offsite Worker	A	0.85	0.54	6.29	0.01	0.58	0.00	0.58	0.15	0.00	0.16
Total	8.32	87.85	53.61	0.10	168.80	3.66	172.46	18.92	3.37	22.29	

* Source A - CalEEMod Model Results

Source B - Other Calculated Results

Grading 2018 FF

Seville 4 Solar Project - Winter 2018 Fixed Frame Grading/Fencing and Associated Traffic											
Winter Unmitigated	Source	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	PM10	FUGPM2.5	EXHMPM2.5	PM2.5
Grading/Fencing Fugitive Dust	A					34.84		34.84	7.75		7.75
Onsite Unpaved Fugitive Dust	B					150.27		150.27	15.03		15.03
Grading/Fencing Off-Road	A	7.43	86.44	47.07	0.10		3.65	3.65		3.36	3.36
Grading/Fencing Offsite Haul	A	0.00	0.06	0.01	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Fencing Offsite Vendor	A	0.03	0.81	0.24	0.00	0.05	0.01	0.06	0.01	0.01	0.02
Grading/Fencing Offsite Worker	A	0.85	0.54	6.29	0.006	0.58	0.004	0.58	0.15	0.004	0.16
Total	8.32	87.85	53.61	0.10	185.74	3.66	189.39	22.95	3.37	26.31	
Winter Mitigated	Source	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	PM10	FUGPM2.5	EXHMPM2.5	PM2.5
Grading/Fencing Fugitive Dust	A					15.68	0.00	15.68	3.49	0.00	3.49
Onsite Unpaved Fugitive Dust	B					150.27		150.27	15.03		15.03
Grading/Fencing Off-Road	A	7.43	86.44	47.07	0.10		3.65	3.65		3.36	3.36
Grading/Fencing Offsite Haul	A	0.00	0.06	0.01	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Fencing Offsite Vendor	A	0.04	0.83	0.27	0.00	0.05	0.01	0.06	0.01	0.01	0.02
Grading/Fencing Offsite Worker	A	0.68	0.57	4.76	0.005	0.58	0.004	0.58	0.15	0.004	0.16
Total	8.15	87.90	52.11	0.10	166.57	3.66	170.23	18.68	3.37	22.05	
Seville 4 Solar Project - Summer 2018 Grading and Associated Traffic											
Summer Unmitigated	Source	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	PM10	FUGPM2.5	EXHMPM2.5	PM2.5
Grading/Fencing Fugitive Dust	A					34.84		34.84	7.75		7.75
Onsite Unpaved Fugitive Dust	B					150.27		150.27	15.03		15.03
Grading/Fencing Off-Road	A	7.43	86.44	47.07	0.10		3.65	3.65		3.36	3.36
Grading/Fencing Offsite Haul	A	0.00	0.06	0.01	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Fencing Offsite Vendor	A	0.03	0.81	0.24	0.00	0.05	0.01	0.06	0.01	0.01	0.02
Grading/Fencing Offsite Worker	A	0.85	0.54	6.29	0.006	0.58	0.004	0.58	0.15	0.004	0.16
Total	8.32	87.85	53.61	0.10	185.74	3.66	189.39	22.95	3.37	26.31	
Summer Mitigated	Source	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	PM10	FUGPM2.5	EXHMPM2.5	PM2.5
Grading/Fencing Fugitive Dust	A					15.68	0.00	15.68	3.49	0.00	3.49
Onsite Unpaved Fugitive Dust	B					150.27		150.27	15.03		15.03
Grading/Fencing Off-Road	A	7.43	86.44	47.07	0.10		3.65	3.65		3.36	3.36
Grading/Fencing Offsite Haul	A	0.00	0.06	0.01	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Fencing Offsite Vendor	A	0.03	0.81	0.24	0.00	0.05	0.01	0.06	0.01	0.01	0.02
Grading/Fencing Offsite Worker	A	0.85	0.54	6.29	0.006	0.58	0.004	0.58	0.15	0.004	0.16
Total	8.32	87.85	53.61	0.10	166.57	3.66	170.23	18.68	3.37	22.05	

* Source A - CalEEMod Model Results

Source B - Other Calculated Results

Racking Installation 2018

Seville 4 Solar Project - Winter 2018 Racking Installation and Associated Traffic											
Winter Unmitigated	Source*	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	PM10	FUGPM2.5	EXHMPM2.5	PM2.5
Racking Installation Off-Road	A	2.57	24.25	18.54	0.03		1.52	1.52		1.42	1.42
Onsite Unpaved Fugitive Dust	B					165.69		165.69	16.57		16.57
Racking Installation Offsite Haul	A	0.00	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Racking Installation Offsite Vendor	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Racking Installation Offsite Worker	A	0.73	0.61	5.13	0.006	0.62	0.0046	0.63	0.17	0.0042	0.17
Total		3.30	24.91	23.68	0.04	166.32	1.53	167.85	16.74	1.43	18.16
Winter Mitigated	Source*	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	PM10	FUGPM2.5	EXHMPM2.5	PM2.5
Racking Installation Off-Road	A	2.57	24.25	18.54	0.03		1.52	1.52		1.42	1.42
Onsite Unpaved Fugitive Dust	B					165.69		165.69	16.57		16.57
Racking Installation Offsite Haul	A	0.00	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Racking Installation Offsite Vendor	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Racking Installation Offsite Worker	A	0.73	0.61	5.13	0.006	0.62	0.0046	0.63	0.17	0.0042	0.17
Total		3.30	24.91	23.68	0.04	166.32	1.53	167.85	16.74	1.43	18.16
Seville 4 Solar Project - Summer 2018 Racking Installation and Associated Traffic											
Summer Unmitigated	Source*	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	PM10	FUGPM2.5	EXHMPM2.5	PM2.5
Racking Installation Off-Road	A	2.57	24.25	18.54	0.03		1.52	1.52		1.42	1.42
Onsite Unpaved Fugitive Dust	B					165.69		165.69	16.57		16.57
Racking Installation Offsite Haul	A	0.00	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Racking Installation Offsite Vendor	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Racking Installation Offsite Worker	A	0.91	0.58	6.77	0.007	0.62	0.0046	0.63	0.17	0.0042	0.17
Total		3.48	24.87	25.32	0.04	166.32	1.53	167.85	16.74	1.43	18.16
Summer Mitigated	Source*	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	PM10	FUGPM2.5	EXHMPM2.5	PM2.5
Racking Installation Off-Road	A	2.57	24.25	18.54	0.03		1.52	1.52		1.42	1.42
Onsite Unpaved Fugitive Dust	B					165.69		165.69	16.57		16.57
Racking Installation Offsite Haul	A	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Racking Installation Offsite Vendor	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Racking Installation Offsite Worker	A	0.91	0.58	6.77	0.007	0.62	0.0046	0.63	0.17	0.0042	0.17
Total		3.48	24.87	25.32	0.04	166.32	1.53	167.85	16.74	1.43	18.16

* Source A - CalEEMod Model Results

Source B - Other Calculated Results

Solar Panel Installation 2018

Seville 4 Solar Project - Winter 2018 Solar Panel Installation and Associated Traffic											
Winter Unmitigated	Source*	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	PM10	FUGPM2.5	EXHMPM2.5	PM2.5
Panel Installation Off-Road	A	2.22	21.20	15.36	0.03		1.26	1.26		1.18	1.18
Onsite Unpaved Fugitive Dust	B					165.69		165.69	16.57		16.57
Panel Installation Offsite Haul	A	0.00	0.05	0.01	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Panel Installation Offsite Vendor	A	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Panel Installation Offsite Worker	A	0.73	0.61	5.13	0.006	0.62	0.00	0.63	0.17	0.004	0.17
Total		2.95	21.86	20.50	0.03	166.32	1.27	167.59	16.74	1.19	17.92
Winter Mitigated	Source*	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	PM10	FUGPM2.5	EXHMPM2.5	PM2.5
Panel Installation Off-Road	A	2.22	21.20	15.36	0.03		1.26	1.26		1.18	1.18
Onsite Unpaved Fugitive Dust	B					165.69		165.69	16.57		16.57
Panel Installation Offsite Haul	A	0.00	0.04	0.01	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Panel Installation Offsite Vendor	A	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Panel Installation Offsite Worker	A	0.73	0.61	5.13	0.006	0.62	0.00	0.63	0.17	0.004	0.17
Total		2.95	21.85	20.49	0.03	166.32	1.27	167.59	16.74	1.19	17.92
Seville 4 Solar Project - Summer 2018 Solar Panel Installation and Associated Traffic											
Summer Unmitigated	Source*	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	PM10	FUGPM2.5	EXHMPM2.5	PM2.5
Panel Installation Off-Road	A	2.22	21.20	15.36	0.03		1.26	1.26		1.18	1.18
Onsite Unpaved Fugitive Dust	B					165.69		165.69	16.57		16.57
Panel Installation Offsite Haul	A	0.00	0.04	0.01	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Panel Installation Offsite Vendor	A	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Panel Installation Offsite Worker	A	0.91	0.58	6.77	0.007	0.62	0.00	0.63	0.17	0.004	0.17
Total		3.13	21.83	22.14	0.03	166.32	1.27	167.59	16.74	1.19	17.92
Summer Mitigated	Source*	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	PM10	FUGPM2.5	EXHMPM2.5	PM2.5
Panel Installation Off-Road	A	2.22	21.20	15.36	0.03		1.26	1.26		1.18	1.18
Onsite Unpaved Fugitive Dust	B					165.69		165.69	16.57		16.57
Panel Installation Offsite Haul	A	0.00	0.04	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Panel Installation Offsite Vendor	A	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Panel Installation Offsite Worker	A	0.91	0.58	6.77	0.007	0.62	0.00	0.63	0.17	0.004	0.17
Total		3.13	21.82	22.14	0.03	166.32	1.27	167.59	16.74	1.19	17.92

* Source A - CalEEMod Model Results

Source B - Other Calculated Results

Wiring&Trench Construction 2018

Seville 4 Solar Project - Winter 2018 System Wiring and Trenching and Associated Traffic											
Winter Unmitigated	Source*	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	PM10	FUGPM2.5	EXHMPM2.5	PM2.5
System Wiring & Trenching Off-Road	A	2.72	25.31	19.10	0.034		1.53	1.53		1.45	1.45
Onsite Unpaved Fugitive Dust	B					60.24		60.24	6.02		6.02
System Wiring & Trenching Offsite Haul	A	0.00	0.07	0.01	0.000	0.00	0.00	0.00	0.00	0.00	0.00
System Wiring & Trenching Offsite Vendor	A	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
System Wiring & Trenching Offsite Worker	A	0.21	0.18	1.47	0.0016	0.18	0.0013	0.18	0.05	0.0012	0.05
Total	2.93	25.55	20.58	0.04	60.43	1.53	61.95	6.07	1.45	7.52	
Winter Mitigated	Source*	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	PM10	FUGPM2.5	EXHMPM2.5	PM2.5
System Wiring & Trenching Off-Road	A	2.72	25.31	19.10	0.034		1.53	1.53		1.45	1.45
Onsite Unpaved Fugitive Dust	B					60.24		60.24	6.02		6.02
System Wiring & Trenching Offsite Haul	A	0.00	0.06	0.01	0.000	0.00	0.00	0.00	0.00	0.00	0.00
System Wiring & Trenching Offsite Vendor	A	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
System Wiring & Trenching Offsite Worker	A	0.21	0.18	1.47	0.0016	0.18	0.0013	0.18	0.05	0.0012	0.05
Total	2.93	25.54	20.58	0.04	60.42	1.53	61.95	6.07	1.45	7.52	
Seville 4 Solar Project - Summer 2018 System Wiring and Trenching and Associated Traffic											
Summer Unmitigated	Source*	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	PM10	FUGPM2.5	EXHMPM2.5	PM2.5
System Wiring & Trenching Off-Road	A	2.72	25.31	19.10	0.034		1.53	1.53		1.45	1.45
Onsite Unpaved Fugitive Dust	B					60.24		60.24	6.02		6.02
System Wiring & Trenching Offsite Haul	A	0.00	0.06	0.01	0.000	0.00	0.00	0.00	0.00	0.00	0.00
System Wiring & Trenching Offsite Vendor	A	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
System Wiring & Trenching Offsite Worker	A	0.26	0.17	1.94	0.0020	0.18	0.0013	0.18	0.05	0.0012	0.05
Total	2.99	25.54	21.05	0.04	60.43	1.53	61.95	6.07	1.45	7.52	
Summer Mitigated	Source*	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	PM10	FUGPM2.5	EXHMPM2.5	PM2.5
System Wiring & Trenching Off-Road	A	2.72	25.31	19.10	0.034		1.53	1.53		1.45	1.45
Onsite Unpaved Fugitive Dust	B					60.24		60.24	6.02		6.02
System Wiring & Trenching Offsite Haul	A	0.00	0.05	0.01	0.000	0.00	0.00	0.00	0.00	0.00	0.00
System Wiring & Trenching Offsite Vendor	A	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
System Wiring & Trenching Offsite Worker	A	0.26	0.17	1.94	0.0020	0.18	0.0013	0.18	0.05	0.0012	0.05
Total	2.99	25.53	21.05	0.04	60.42	1.53	61.95	6.07	1.45	7.52	

* Source A - CalEEMod Model Results

Source B - Other Calculated Results

Inverter Installation 2018

Seville 4 Solar Project - Winter 2018 Inverter Installation and Associated Traffic											
Winter Unmitigated	Source*	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	PM10	FUGPM2.5	EXHMPM2.5	PM2.5
Inverter Installation Off-Road	A	1.54	15.09	11.38	0.02		0.80	0.80		0.76	0.76
Onsite Unpaved Fugitive Dust	B					49.99		49.99	5.00		5.00
Inverter Installation Offsite Haul	A	0.00	0.15	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00
Inverter Installation Offsite Vendor	A	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Inverter Installation Offsite Worker	A	0.21	0.18	1.47	0.00	0.18	0.00	0.18	0.05	0.00	0.05
Total		1.75	15.42	12.87	0.02	50.18	0.80	50.98	5.05	0.76	5.81
Winter Mitigated	Source*	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	PM10	FUGPM2.5	EXHMPM2.5	PM2.5
Inverter Installation Off-Road	A	1.54	15.09	11.38	0.02		0.80	0.80		0.76	0.76
Onsite Unpaved Fugitive Dust	B					49.99		49.99	5.00		5.00
Inverter Installation Offsite Haul	A	0.00	0.13	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00
Inverter Installation Offsite Vendor	A	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Inverter Installation Offsite Worker	A	0.21	0.18	1.47	0.00	0.18	0.00	0.18	0.05	0.00	0.05
Total		1.75	15.40	12.86	0.02	50.18	0.80	50.98	5.05	0.76	5.81
Seville 4 Solar Project - Summer 2018 Inverter Installation and Associated Traffic											
Summer Unmitigated	Source*	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	PM10	FUGPM2.5	EXHMPM2.5	PM2.5
Inverter Installation Off-Road	A	1.54	15.09	11.38	0.02		0.80	0.80		0.76	0.76
Onsite Unpaved Fugitive Dust	B					49.99		49.99	5.00		5.00
Inverter Installation Offsite Haul	A	0.00	0.06	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Inverter Installation Offsite Vendor	A	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Inverter Installation Offsite Worker	A	0.26	0.17	1.94	0.00	0.18	0.00	0.18	0.05	0.00	0.05
Total		1.80	15.32	13.32	0.02	50.17	0.80	50.97	5.05	0.76	5.81
Summer Mitigated	Source*	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	PM10	FUGPM2.5	EXHMPM2.5	PM2.5
Inverter Installation Off-Road	A	1.54	15.09	11.38	0.02		0.80	0.80		0.76	0.76
Onsite Unpaved Fugitive Dust	B					49.99		49.99	5.00		5.00
Inverter Installation Offsite Haul	A	0.00	0.12	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00
Inverter Installation Offsite Vendor	A	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Inverter Installation Offsite Worker	A	0.26	0.17	1.94	0.00	0.18	0.00	0.18	0.05	0.00	0.05
Total		1.80	15.38	13.33	0.03	50.18	0.80	50.98	5.05	0.76	5.81

* Source A - CalEEMod Model Results

Source B - Other Calculated Results

GenTie Line Construction 2018

Seville 4 Solar Project - Winter 2018 GenTie Power Line Construction and Associated Traffic											
Winter Unmitigated	Source*	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	PM10	FUGPM2.5	EXHMPM2.5	PM2.5
GenTie Line Construction Off-Road	A	1.00	12.19	6.34	0.01		0.56	0.56		0.51	0.51
Onsite Unpaved Fugitive Dust	B					14.94		14.94	1.49		1.49
GenTie Line Construction Offsite Haul	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GenTie Line Construction Offsite Vendor	A	0.01	0.28	0.09	0.001	0.02	0.00	0.02	0.00	0.00	0.01
GenTie Line Construction Offsite Worker	A	0.10	0.09	0.73	0.00	0.09	0.00	0.09	0.02	0.00	0.02
Total		1.11	12.55	7.16	0.01	15.04	0.56	15.61	1.52	0.52	2.04
Winter Mitigated	Source*	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	PM10	FUGPM2.5	EXHMPM2.5	PM2.5
GenTie Line Construction Off-Road	A	1.00	12.19	6.34	0.01		0.56	0.56		0.51	0.51
Onsite Unpaved Fugitive Dust	B					14.94		14.94	1.49		1.49
GenTie Line Construction Offsite Haul	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GenTie Line Construction Offsite Vendor	A	0.01	0.28	0.09	0.001	0.02	0.00	0.02	0.00	0.00	0.01
GenTie Line Construction Offsite Worker	A	0.10	0.09	0.73	0.00	0.09	0.00	0.09	0.02	0.00	0.02
Total		1.11	12.55	7.16	0.01	15.04	0.56	15.61	1.52	0.52	2.04
Seville 4 Solar Project - Summer 2018 GenTie Power Line Construction and Associated Traffic											
Summer Unmitigated	Source*	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	PM10	FUGPM2.5	EXHMPM2.5	PM2.5
GenTie Line Construction Off-Road	A	1.00	12.19	6.34	0.01		0.56	0.56		0.51	0.51
Onsite Unpaved Fugitive Dust	B					14.94		14.94	1.49		1.49
GenTie Line Construction Offsite Haul	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GenTie Line Construction Offsite Vendor	A	0.01	0.27	0.08	0.001	0.02	0.00	0.02	0.00	0.00	0.01
GenTie Line Construction Offsite Worker	A	0.13	0.08	0.97	0.00	0.09	0.00	0.09	0.02	0.00	0.02
Total		1.14	12.54	7.39	0.01	15.04	0.56	15.61	1.52	0.52	2.04
Summer Mitigated	Source*	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	PM10	FUGPM2.5	EXHMPM2.5	PM2.5
GenTie Line Construction Off-Road	A	1.00	12.19	6.34	0.01		0.56	0.56		0.51	0.51
Onsite Unpaved Fugitive Dust	B					14.94		14.94	1.49		1.49
GenTie Line Construction Offsite Haul	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GenTie Line Construction Offsite Vendor	A	0.01	0.27	0.08	0.001	0.02	0.00	0.02	0.00	0.00	0.01
GenTie Line Construction Offsite Worker	A	0.13	0.08	0.97	0.00	0.09	0.00	0.09	0.02	0.00	0.02
Total		1.14	12.54	7.39	0.01	15.04	0.56	15.61	1.52	0.52	2.04

* Source A - CalEEMod Model Results

Source B - Other Calculated Results

Sub & Switch Sta Construc. 2018

Seville 4 Solar Project - Winter 2018 Substation and Switch Station Construction and Associated Traffic											
Winter Unmitigated	Source*	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	PM10	FUGPM2.5	EXHMPM2.5	PM2.5
Substation/Switch Sta Construc Off-Road	A	0.98	10.77	7.33	0.01		0.60	0.60		0.55	0.55
Onsite Unpaved Fugitive Dust	B					5.86		5.86	0.59		0.59
Substation/Switch Sta Construc Offsite Haul	A	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substation/Switch Sta Construc Offsite Vendor	A	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Substation/Switch Sta Construc Offsite Worker	A	0.10	0.09	0.73	0.00	0.09	0.00	0.09	0.02	0.00	0.02
Total		1.09	10.88	8.06	0.01	5.95	0.60	6.55	0.61	0.55	1.16
Seville 4 Solar Project - Summer 2018 Substation and Switch Station Construction and Associated Traffic											
Summer Unmitigated	Source*	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	PM10	FUGPM2.5	EXHMPM2.5	PM2.5
Substation/Switch Sta Construc Off-Road	A	0.98	10.77	7.33	0.01		0.60	0.60		0.55	0.55
Onsite Unpaved Fugitive Dust	B					5.86		5.86	0.59		0.59
Substation/Switch Sta Construc Offsite Haul	A	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substation/Switch Sta Construc Offsite Vendor	A	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Substation/Switch Sta Construc Offsite Worker	A	0.10	0.09	0.73	0.00	0.09	0.00	0.09	0.02	0.00	0.02
Total		1.12	10.87	8.30	0.01	5.95	0.60	6.55	0.61	0.55	1.16
Seville 4 Solar Project - Fall 2018 Substation and Switch Station Construction and Associated Traffic											
Summer Mitigated	Source*	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	PM10	FUGPM2.5	EXHMPM2.5	PM2.5
Substation/Switch Sta Construc Off-Road	A	0.98	10.77	7.33	0.01		0.60	0.60		0.55	0.55
Onsite Unpaved Fugitive Dust	B					5.86		5.86	0.59		0.59
Substation/Switch Sta Construc Offsite Haul	A	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substation/Switch Sta Construc Offsite Vendor	A	0.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Substation/Switch Sta Construc Offsite Worker	A	0.13	0.08	0.97	0.00	0.09	0.00	0.09	0.02	0.00	0.02
Total		1.12	10.87	8.30	0.01	5.95	0.60	6.55	0.61	0.55	1.16

* Source A - CalEEMod Model Results
 Source B - Other Calculated Results

HSAT Construction Annual CO2e

Seville 4 Solar Project - HSAT Annual Construction and Associated Traffic					
Annual Unmitigated	Emission Rate (Metric Tons/year)				
	Bio-CO2	NBio-CO2	Total CO2	CH4	CO2e
Access Road Construction 2018 - Offroad	0.00	11.96	11.96	0.0037	12.05
Access Road Construction 2018 - Mobile	0.00	0.81	0.81	0.0001	0.81
Grading/Fencing 2018 - Offroad	0.00	78.49	78.49	0.0244	79.10
Grading/Fencing 2018 - Mobile	0.00	6.45	6.45	0.0005	6.46
Racking Installation 2018 - Offroad	0.00	85.55	85.55	0.0226	86.12
Racking Installation 2018 - Mobile	0.00	17.02	17.02	0.0015	17.06
Solar Panel Installation 2015 - Offroad	0.00	74.87	74.87	0.0193	75.35
Solar Panel Installation 2015 - Mobile	0.00	17.02	17.02	0.0015	17.06
System Wiring and Trenching 2018 - Offroad	0.00	64.28	64.28	0.0143	64.64
System Wiring and Trenching 2018 - Mobile	0.00	3.70	3.70	0.0003	3.71
Inverter Installation 2018 - Offroad	0.00	30.50	30.50	0.0075	30.69
Inverter Installation 2018 - Mobile	0.00	2.98	2.98	0.0003	2.98
GenTie Power Line Construction 2018 - Offroad	0.00	14.17	14.17	0.0044	14.28
GenTie Power Line Construction 2018 - Mobile	0.00	1.69	1.69	0.0001	1.69
Substation/Switch Station Construc 2018 - Offroad	0.00	25.72	25.72	0.0080	25.92
Substation/Switch Station Construc 2018 - Mobile	0.00	2.05	2.05	0.0002	2.06
Total	0.00	437.26	437.26	0.11	439.98
Annual Mitigated	Emission Rate (Metric Tons/year)				
	Bio-CO2	NBio-CO2	Total CO2	CH4	CO2e
Access Road Construction 2018 - Offroad	0.00	11.96	11.96	0.0037	12.05
Access Road Construction 2018 - Mobile	0.00	0.81	0.81	0.0001	0.81
Grading/Fencing 2018 - Offroad	0.00	78.49	78.49	0.0244	79.10
Grading/Fencing 2018 - Mobile	0.00	6.45	6.45	0.0005	6.46
Racking Installation 2018 - Offroad	0.00	85.55	85.55	0.0226	86.12
Racking Installation 2018 - Mobile	0.00	17.02	17.02	0.0015	17.06
Solar Panel Installation 2015 - Offroad	0.00	74.87	74.87	0.0193	75.35
Solar Panel Installation 2015 - Mobile	0.00	17.02	17.02	0.0015	17.06
System Wiring and Trenching 2018 - Offroad	0.00	64.28	64.28	0.0143	64.64
System Wiring and Trenching 2018 - Mobile	0.00	3.70	3.70	0.0003	3.71
Inverter Installation 2018 - Offroad	0.00	30.50	30.50	0.0075	30.69
Inverter Installation 2018 - Mobile	0.00	2.98	2.98	0.0003	2.98
GenTie Power Line Construction 2018 - Offroad	0.00	14.17	14.17	0.0044	14.28
GenTie Power Line Construction 2018 - Mobile	0.00	1.69	1.69	0.0001	1.69
Substation/Switch Station Construc 2018 - Offroad	0.00	25.72	25.72	0.0080	25.92
Substation/Switch Station Construc 2018 - Mobile	0.00	2.05	2.05	0.0002	2.06
Total	0.00	437.26	437.26	0.11	439.98

FF Construction Annual CO2e

Seville 4 Solar Project - FF Annual Construction and Associated Traffic					
Annual Unmitigated	Emission Rate (Metric Tons/year)				
	Bio-CO2	NBio-CO2	Total CO2	CH4	CO2e
Access Road Construction 2018 - Offroad	0.00	11.96	11.96	0.0037	12.05
Access Road Construction 2018 - Mobile	0.00	0.81	0.81	0.0001	0.81
Grading/Fencing 2018 - Offroad	0.00	78.49	78.49	0.0244	79.10
Grading/Fencing 2018 - Mobile	0.00	6.45	6.45	0.0005	6.46
Racking Installation 2018 - Offroad	0.00	85.55	85.55	0.0226	86.12
Racking Installation 2018 - Mobile	0.00	17.02	17.02	0.0015	17.06
Solar Panel Installation 2015 - Offroad	0.00	74.87	74.87	0.0193	75.35
Solar Panel Installation 2015 - Mobile	0.00	17.02	17.02	0.0015	17.06
System Wiring and Trenching 2018 - Offroad	0.00	64.28	64.28	0.0143	64.64
System Wiring and Trenching 2018 - Mobile	0.00	3.70	3.70	0.0003	3.71
Inverter Installation 2018 - Offroad	0.00	30.50	30.50	0.0075	30.69
Inverter Installation 2018 - Mobile	0.00	2.98	2.98	0.0003	2.98
GenTie Power Line Construction 2018 - Offroad	0.00	14.17	14.17	0.0044	14.28
GenTie Power Line Construction 2018 - Mobile	0.00	1.69	1.69	0.0001	1.69
Substation/Switch Station Construc 2018 - Offroad	0.00	25.72	25.72	0.0080	25.92
Substation/Switch Station Construc 2018 - Mobile	0.00	2.05	2.05	0.0002	2.06
Total	0.00	437.26	437.26	0.11	439.98
Annual Mitigated	Emission Rate (Metric Tons/year)				
	Bio-CO2	NBio-CO2	Total CO2	CH4	CO2e
Access Road Construction 2018 - Offroad	0.00	11.96	11.96	0.0037	12.05
Access Road Construction 2018 - Mobile	0.00	0.81	0.81	0.0001	0.81
Grading/Fencing 2018 - Offroad	0.00	78.49	78.49	0.0244	79.10
Grading/Fencing 2018 - Mobile	0.00	6.45	6.45	0.0005	6.46
Racking Installation 2018 - Offroad	0.00	85.55	85.55	0.0226	86.12
Racking Installation 2018 - Mobile	0.00	17.02	17.02	0.0015	17.06
Solar Panel Installation 2015 - Offroad	0.00	74.87	74.87	0.0193	75.35
Solar Panel Installation 2015 - Mobile	0.00	17.02	17.02	0.0015	17.06
System Wiring and Trenching 2018 - Offroad	0.00	64.28	64.28	0.0143	64.64
System Wiring and Trenching 2018 - Mobile	0.00	3.70	3.70	0.0003	3.71
Inverter Installation 2018 - Offroad	0.00	30.50	30.50	0.0075	30.69
Inverter Installation 2018 - Mobile	0.00	2.98	2.98	0.0003	2.98
GenTie Power Line Construction 2018 - Offroad	0.00	14.17	14.17	0.0044	14.28
GenTie Power Line Construction 2018 - Mobile	0.00	1.69	1.69	0.0001	1.69
Substation/Switch Station Construc 2018 - Offroad	0.00	25.72	25.72	0.0080	25.92
Substation/Switch Station Construc 2018 - Mobile	0.00	2.05	2.05	0.0002	2.06
Total	0.00	437.26	437.26	0.11	439.98

Operations 2018 HSAT

Seville 4 Solar Project - Winter 2018 HSAT Operations/Maintenance and Associated Traffic											
Winter Unmitigated	Source*	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	PM10	FUGPM2.5	EXHMPM2.5	PM2.5
Operations Area	A	0.00	0.00	0.02	0.0000		0.00	0.00		0.0001	0.00
Operations Mobile	A	0.04	0.28	0.41	0.0009	26.06	0.00	26.06	2.601	0.0011	2.60
Operations Offroad	A	0.58	6.24	3.15	0.01		0.23	0.23		0.21	0.21
Total	0.62	6.53	3.58	0.01	26.06	0.23	26.29	2.60	0.21	2.81	
Seville 4 Solar Project - Summer 2018 Operations/Maintenance and Associated Traffic											
Summer Unmitigated	Source*	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	PM10	FUGPM2.5	EXHMPM2.5	PM2.5
Operations Area	A	0.00	0.00	0.02	0.0000		0.00	0.00		0.0001	0.00
Operations Mobile	A	0.05	0.28	0.51	0.0010	26.06	0.00	26.06	2.601	0.0010	2.60
Operations Offroad	A	0.58	6.24	3.15	0.01		0.23	0.23		0.21	0.21
Total	0.63	6.52	3.68	0.01	26.06	0.23	26.29	2.60	0.21	2.81	
Summer Mitigated	Source*	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	PM10	FUGPM2.5	EXHMPM2.5	PM2.5
Operations Area	A	0.00	0.00	0.02	0.0000		0.00	0.00		0.0001	0.00
Operations Mobile	A	0.05	0.28	0.51	0.0010	26.06	0.00	26.06	2.601	0.0010	2.60
Operations Offroad	A	0.58	6.24	3.15	0.01		0.23	0.23		0.21	0.21
Total	0.63	6.52	3.68	0.01	26.06	0.23	26.29	2.60	0.21	2.81	

* Source A - CalEEMod Model Results

Source B - Other Calculated Results

Operations HSAT Annual CO2e

Seville 4 Solar Project - 2018 HSAT Annual Operations and Associated Traffic					
Annual Unmitigated	Emission Rate (Metric Tons/year)				
	Bio-CO2	NBio-CO2	Total CO2	CH4	CO2e
Operations Offroad	0	117.61	117.61	0.04	118.52
Operations Energy	0	87.39	87.39	1.99E-03	87.56
Operations Area	0	0.00311	0.00311	0.00001	0.00332
Operations Water	0	20.87	20.87	4.80E-04	20.91
Operations Mobile	0	14.09	14.09	0.00	14.12
Total	0.00	239.96	239.96	0.04	241.12
Annual Mitigated	Emission Rate (Metric Tons/year)				
	Bio-CO2	NBio-CO2	Total CO2	CH4	CO2e
Operations Offroad	0	117.61	117.61	0.04	118.52
Operations Energy	0	87.39	87.39	1.99E-03	87.56
Operations Area	0	0.00311	0.00311	0.00001	0.00332
Operations Water	0	20.87	20.87	4.80E-04	20.91
Operations Mobile	0	14.09	14.09	0.00	14.12
Total	0.00	239.96	239.96	0.04	241.12

Operations 2018 FF

Seville 4 Solar Project - Winter 2018 Fixed-Frame Operations/Maintenance and Associated Traffic											
Winter Unmitigated	Source*	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	PM10	FUGPM2.5	EXHMPM2.5	PM2.5
Operations Area	A	0.00	0.00	0.02	0.0000		0.00	0.00		0.0001	0.00
Operations Mobile	A	0.03	0.25	0.35	0.0009	25.51	0.00	25.51	2.546	0.0008	2.55
Operations Offroad	A	0.50	4.74	2.86	0.01		0.17	0.17		0.16	0.16
Total	0.53	4.99	3.22	0.01	25.51	0.17	25.69	2.55	0.16	2.71	
Seville 4 Solar Project - Summer 2018 Operations/Maintenance and Associated Traffic											
Summer Unmitigated	Source*	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	PM10	FUGPM2.5	EXHMPM2.5	PM2.5
Operations Area	A	0.00	0.00	0.02	0.0000		0.00	0.00		0.0001	0.00
Operations Mobile	A	0.03	0.25	0.35	0.0009	25.51	0.00	25.51	2.546	0.0008	2.55
Operations Offroad	A	0.50	4.74	2.86	0.01		0.17	0.17		0.16	0.16
Total	0.53	4.99	3.22	0.01	25.51	0.17	25.69	2.55	0.16	2.71	
Summer Mitigated	Source*	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	PM10	FUGPM2.5	EXHMPM2.5	PM2.5
Operations Area	A	0.00	0.00	0.02	0.0000		0.00	0.00		0.0001	0.00
Operations Mobile	A	0.03	0.25	0.35	0.0009	25.51	0.00	25.51	2.546	0.0008	2.55
Operations Offroad	A	0.50	4.74	2.86	0.01		0.17	0.17		0.16	0.16
Total	0.53	4.99	3.22	0.01	25.51	0.17	25.69	2.55	0.16	2.71	

* Source A - CalEEMod Model Results

Source B - Other Calculated Results

Operations Annual CO2e FF

Seville 4 Solar Project - 2018 Fixed-Frame Annual Operations and Associated Traffic					
Annual Unmitigated	Emission Rate (Metric Tons/year)				
	Bio-CO2	NBio-CO2	Total CO2	CH4	CO2e
Operations Offroad	0	113.09	113.09	0.04	114.01
Operations Energy	0	73.32	73.32	1.67E-03	73.47
Operations Area	0	0.00261	0.00261	0.00001	0.00278
Operations Water	0	20.87	20.87	4.80E-04	20.91
Operations Mobile	0	13.43	13.43	1.08E-03	13.46
Total	0.00	220.72	220.72	0.04	221.85
Annual Mitigated	Emission Rate (Metric Tons/year)				
	Bio-CO2	NBio-CO2	Total CO2	CH4	CO2e
Operations Offroad	0	113.09	113.09	0.04	114.01
Operations Energy	0	73.32	73.32	1.67E-03	73.47
Operations Area	0	0.00261	0.00261	0.00001	0.00278
Operations Water	0	20.87	20.87	4.80E-04	20.91
Operations Mobile	0	13.43	13.43	1.08E-03	13.46
Total	0.00	220.72	220.72	0.04	221.85

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ATTACHMENT E

TABLES PROVIDING UNMITIGATED AND MITIGATED DAILY AIR POLLUTION
EMISSIONS SUMMED BY TIME PERIOD COMPARED TO APPLICABLE
SIGNIFICANCE THRESHOLDS

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Seville 4 Week 1-2

Access Road Construction (All-Weather)										
Week 1 - 2 - 2018 - Unmitigated Winter										
Winter Unmitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	1.57	17.66	8.16	0.02	29.09	0.67	29.75	2.93	0.61	3.54
ICAPCD Significance	75.00	100.00	550.00				150.00			
CEQA Significant?	No	No	No				No			
Week 1 - 2 - 2018 - Unmitigated Summer										
Summer Unmitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	1.59	17.65	8.33	0.02	29.09	0.67	29.75	2.93	0.61	3.54
ICAPCD Significance	75.00	100.00	550.00				150.00			
CEQA Significant?	No	No	No				No			
Week 1 - 2 - 2018 - Mitigated Winter										
Winter Mitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	1.57	17.66	8.16	0.02	28.60	0.67	29.27	2.88	0.61	3.49
ICAPCD Significance	75.00	100.00	550.00				150.00			
CEQA Significant?	No	No	No				No			
Week 1 - 2 - 2018 - Mitigated Summer										
Summer Mitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	1.59	17.65	8.33	0.02	28.60	0.67	29.27	2.88	0.61	3.49
ICAPCD Significance	75.00	100.00	550.00				150.00			
CEQA Significant?	No	No	No				No			

Seville 4 Week 3-5 HSAT

HSAT Grading/Fencing										
Week 3 - 5 - 2018 - Unmitigated Winter										
Winter Unmitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	8.15	87.90	52.11	0.10	190.68	3.66	194.34	23.48	3.37	26.85
ICAPCD Significance	75.00	100.00	550.00				150.00			
CEQA Significant?	No	No	No				Yes			
Week 3 - 5 - 2018 - Unmitigated Summer										
Summer Unmitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	8.32	87.85	53.61	0.10	190.68	3.66	194.34	23.48	3.37	26.85
ICAPCD Significance	75.00	100.00	550.00				150.00			
CEQA Significant?	No	No	No				Yes			
Week 3 - 5 - 2018 - Mitigated Winter										
Winter Mitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	8.15	87.90	52.11	0.10	168.80	3.66	172.46	18.92	3.37	22.29
ICAPCD Significance	75.00	100.00	550.00				150.00			
CEQA Significant?	No	No	No				Yes			
Week 3 - 5 - 2018 - Mitigated Summer										
Summer Mitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	8.32	87.85	53.61	0.10	168.80	3.66	172.46	18.92	3.37	22.29
ICAPCD Significance	75.00	100.00	550.00				150.00			
CEQA Significant?	No	No	No				Yes			

Seville 4 Week 3-5 FF

Fixed Frame Grading/Fencing										
Week 3 - 5 - 2018 - Unmitigated Winter										
Winter Unmitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	8.32	87.85	53.61	0.10	185.74	3.66	189.39	22.95	3.37	26.31
ICAPCD Significance	75.00	100.00	550.00				150.00			
CEQA Significant?	No	No	No				Yes			
Week 3 - 5 - 2018 - Unmitigated Summer										
Summer Unmitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	8.32	87.85	53.61	0.10	185.74	3.66	189.39	22.95	3.37	26.31
ICAPCD Significance	75.00	100.00	550.00				150.00			
CEQA Significant?	No	No	No				Yes			
Week 3 - 5 - 2018 - Mitigated Winter										
Winter Mitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	8.15	87.90	52.11	0.10	166.57	3.66	170.23	18.68	3.37	22.05
ICAPCD Significance	75.00	100.00	550.00				150.00			
CEQA Significant?	No	No	No				Yes			
Week 3 - 5 - 2018 - Mitigated Summer										
Summer Mitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	8.32	87.85	53.61	0.10	166.57	3.66	170.23	18.68	3.37	22.05
ICAPCD Significance	75.00	100.00	550.00				150.00			
CEQA Significant?	No	No	No				Yes			

Seville 4 Week 6-10

Racking Installation										
Week 6 - 10 - 2018 - Unmitigated Winter										
Winter Unmitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	3.30	24.91	23.68	0.04	166.32	1.53	167.85	16.74	1.43	18.16
ICAPCD Significance	75.00	100.00	550.00				150.00			
CEQA Significant?	No	No	No				Yes			
Week 6 - 10 - 2018 - Unmitigated Summer										
Summer Unmitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	3.48	24.87	25.32	0.04	166.32	1.53	167.85	16.74	1.43	18.16
ICAPCD Significance	75.00	100.00	550.00				150.00			
CEQA Significant?	No	No	No				Yes			
Week 6 - 10 - 2018 - Mitigated Winter										
Winter Mitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	3.30	24.91	23.68	0.04	166.32	1.53	167.85	16.74	1.43	18.16
ICAPCD Significance	75.00	100.00	550.00				150.00			
CEQA Significant?	No	No	No				Yes			
Week 6 - 10 - 2018 - Mitigated Summer										
Summer Mitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	3.48	24.87	25.32	0.04	166.32	1.53	167.85	16.74	1.43	18.16
ICAPCD Significance	75.00	100.00	550.00				150.00			
CEQA Significant?	No	No	No				Yes			

Seville 4 Weeks 11-14

Racking Installation, Solar Panel Installation, GenTie Power Line Construction, & Substation & Switch Station Construction										
Weeks 11 - 14 - 2018 - Unmitigated Winter										
Winter Unmitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	8.45	70.19	59.40	0.10	353.63	3.96	357.59	35.60	3.68	39.28
ICAPCD Significance	75.00	100.00	550.00				150.00			
CEQA Significant?	No	No	No				Yes			
Weeks 11 - 14 - 2018 - Unmitigated Summer										
Summer Unmitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	8.87	70.11	63.14	0.10	353.63	3.96	357.59	35.60	3.68	39.28
ICAPCD Significance	75.00	100.00	550.00				150.00			
CEQA Significant?	No	No	No				Yes			
Weeks 11 - 14 - 2018 - Mitigated Winter										
Winter Mitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	8.45	70.18	59.40	0.10	353.63	3.96	357.59	35.60	3.68	39.28
ICAPCD Significance	75.00	100.00	550.00				150.00			
CEQA Significant?	No	No	No				Yes			
Weeks 11 - 14 - 2018 - Mitigated Summer										
Summer Mitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	8.87	70.10	63.14	0.10	353.63	3.96	357.58	35.60	3.68	39.28
ICAPCD Significance	75.00	100.00	550.00				150.00			
CEQA Significant?	No	No	No				Yes			

Seville 4 Weeks 15

Racking Installation, Solar Panel Installation, Substation & Switch Station Construction, & System Wiring and Trenching										
Week 15 - 2018 - Unmitigated Winter										
Winter Unmitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	10.27	83.19	72.81	0.12	399.01	4.92	403.93	40.15	4.61	44.77
ICAPCD Significance	75.00	100.00	550.00				150.00			
CEQA Significant?	No	No	No				Yes			
Week 15 - 2018 - Unmitigated Summer										
Summer Unmitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	10.71	83.11	76.80	0.12	399.01	4.92	403.93	40.15	4.61	44.77
ICAPCD Significance	75.00	100.00	550.00				150.00			
CEQA Significant?	No	No	No				Yes			
Week 15 - 2018 - Mitigated Winter										
Winter Mitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	10.27	83.18	72.81	0.12	399.01	4.92	403.93	40.15	4.61	44.77
ICAPCD Significance	75.00	100.00	550.00				150.00			
CEQA Significant?	No	No	No				Yes			
Week 15 - 2018 - Mitigated Summer										
Summer Mitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	10.71	83.09	76.80	0.12	399.01	4.92	403.93	40.15	4.61	44.77
ICAPCD Significance	75.00	100.00	550.00				150.00			
CEQA Significant?	No	No	No				Yes			

Seville 4 Weeks 16-18

Solar Panel Installation, Substation & Switch Station Construction, & System Wiring and Trenching										
Weeks 16 - 18 - 2018 - Unmitigated Winter										
Winter Unmitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	6.97	58.29	49.14	0.08	232.69	3.40	236.09	23.42	3.19	26.60
ICAPCD Significance	75.00	100.00	550.00				150.00			
CEQA Significant?	No	No	No				Yes			
Weeks 16 - 18 - 2018 - Unmitigated Summer										
Summer Unmitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	7.23	58.24	51.48	0.08	232.69	3.40	236.09	23.42	3.19	26.60
ICAPCD Significance	75.00	100.00	550.00				150.00			
CEQA Significant?	No	No	No				Yes			
Weeks 16 - 18 - 2018 - Mitigated Winter										
Winter Mitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	6.97	58.27	49.13	0.08	232.69	3.40	236.09	23.42	3.19	26.60
ICAPCD Significance	75.00	100.00	550.00				150.00			
CEQA Significant?	No	No	No				Yes			
Weeks 16 - 18 - 2018 - Mitigated Summer										
Summer Mitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	7.23	58.23	51.48	0.08	232.69	3.40	236.09	23.42	3.19	26.60
ICAPCD Significance	75.00	100.00	550.00				150.00			
CEQA Significant?	No	No	No				Yes			

Seville 4 Weeks 19-20

Solar Panel Installation, System Wiring and Trenching, & Inverter Installation										
Weeks 19 - 20 - 2018 - Unmitigated Winter										
Winter Unmitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	7.64	62.83	53.94	0.09	276.92	3.60	280.52	27.86	3.40	31.25
ICAPCD Significance	75.00	100.00	550.00				150.00			
CEQA Significant?	No	No	No				Yes			
Weeks 19 - 20 - 2018 - Unmitigated Summer										
Summer Unmitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	7.92	62.69	56.51	0.10	276.92	3.60	280.52	27.86	3.40	31.25
ICAPCD Significance	75.00	100.00	550.00				150.00			
CEQA Significant?	No	No	No				Yes			
Weeks 19 - 20 - 2018 - Mitigated Winter										
Winter Mitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	7.63	62.79	53.94	0.09	276.92	3.60	280.52	27.86	3.40	31.25
ICAPCD Significance	75.00	100.00	550.00				150.00			
CEQA Significant?	No	No	No				Yes			
Weeks 19 - 20 - 2018 - Mitigated Summer										
Summer Mitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	7.92	62.73	56.51	0.10	276.92	3.60	280.52	27.86	3.40	31.25
ICAPCD Significance	75.00	100.00	550.00				150.00			
CEQA Significant?	No	No	No				Yes			

Seville 4 Weeks 21

System Wiring and Trenching & Inverter Installation										
Weeks 21 - 2018 - Unmitigated Winter										
Winter Unmitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	4.69	40.97	33.45	0.06	110.60	2.33	112.93	11.12	2.21	13.33
ICAPCD Significance	75.00	100.00	550.00				150.00			
CEQA Significant?	No	No	No				No			
Weeks 21 - 2018 - Unmitigated Summer										
Summer Unmitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	4.79	40.87	34.37	0.06	110.60	2.33	112.93	11.12	2.21	13.33
ICAPCD Significance	75.00	100.00	550.00				150.00			
CEQA Significant?	No	No	No				No			
Weeks 21 - 2018 - Mitigated Winter										
Winter Mitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	4.69	40.94	33.44	0.06	110.60	2.33	112.93	11.12	2.21	13.33
ICAPCD Significance	75.00	100.00	550.00				150.00			
CEQA Significant?	No	No	No				No			
Weeks 21 - 2018 - Mitigated Summer										
Summer Mitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	4.79	40.91	34.38	0.06	110.60	2.33	112.93	11.12	2.21	13.33
ICAPCD Significance	75.00	100.00	550.00				150.00			
CEQA Significant?	No	No	No				No			

Seville 4 Weeks 22-23

Inverter Installation										
Weeks 22 - 23 - 2018 - Unmitigated Winter										
Winter Unmitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	1.75	15.42	12.87	0.02	50.18	0.80	50.98	5.05	0.76	5.81
ICAPCD Significance	75.00	100.00	550.00				150.00			
CEQA Significant?	No	No	No				No			
Weeks 22 - 23 - 2018 - Unmitigated Summer										
Summer Unmitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	1.80	15.32	13.32	0.02	50.17	0.80	50.97	5.05	0.76	5.81
ICAPCD Significance	75.00	100.00	550.00				150.00			
CEQA Significant?	No	No	No				No			
Weeks 22 - 23 - 2018 - Mitigated Winter										
Winter Mitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	1.75	15.40	12.86	0.02	50.18	0.80	50.98	5.05	0.76	5.81
ICAPCD Significance	75.00	100.00	550.00				150.00			
CEQA Significant?	No	No	No				No			
Weeks 22 - 23 - 2018 - Mitigated Summer										
Summer Mitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	1.80	15.38	13.33	0.03	50.18	0.80	50.98	5.05	0.76	5.81
ICAPCD Significance	75.00	100.00	550.00				150.00			
CEQA Significant?	No	No	No				No			

Operations 2018 HSAT Week 24

HSAT Operations										
Operations 2018 - Unmitigated Winter										
Winter Unmitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	0.62	6.53	3.58	0.01	26.06	0.23	26.29	2.60	0.21	2.81
ICAPCD Significance	55.00	55.00	550.00	150.00			150.00			
CEQA Significant?	No	No	No	No			No			
Operations 2018 - Unmitigated Summer										
Summer Unmitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	0.63	6.52	3.68	0.01	26.06	0.23	26.29	2.60	0.21	2.81
ICAPCD Significance	55.00	55.00	550.00	150.00			150.00			
CEQA Significant?	No	No	No	No			No			
Operations 2018 - Mitigated Winter										
Winter Mitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	0.62	6.53	3.58	0.01	26.06	0.23	26.29	2.60	0.21	2.81
ICAPCD Significance	55.00	55.00	550.00	150.00			150.00			
CEQA Significant?	No	No	No	No			No			
Operations 2018 - Mitigated Summer										
Summer Mitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	0.63	6.52	3.68	0.01	26.06	0.23	26.29	2.60	0.21	2.81
ICAPCD Significance	55.00	55.00	550.00	150.00			150.00			
CEQA Significant?	No	No	No	No			No			

Operations 2018 FF Week 24

Fixed Frame Operations										
Operations 2018 - Unmitigated Winter										
Winter Unmitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	0.53	4.99	3.22	0.01	25.51	0.17	25.69	2.55	0.16	2.71
ICAPCD Significance	55.00	55.00	550.00	150.00			150.00			
CEQA Significant?	No	No	No	No			No			
Operations 2018 - Unmitigated Summer										
Summer Unmitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	0.53	4.99	3.22	0.01	25.51	0.17	25.69	2.55	0.16	2.71
ICAPCD Significance	55.00	55.00	550.00	150.00			150.00			
CEQA Significant?	No	No	No	No			No			
Operations 2018 - Mitigated Winter										
Winter Mitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	0.53	4.99	3.22	0.01	25.51	0.17	25.69	2.55	0.16	2.71
ICAPCD Significance	55.00	55.00	550.00	150.00			150.00			
CEQA Significant?	No	No	No	No			No			
Operations 2018 - Mitigated Summer										
Summer Mitigated	Emission Rate (lbs/day)									
	ROG	NOx	CO	SO2	FUGPM10	EXHMPM10	TOTPM10	FUGPM2.5	EXHMPM2.5	TOTPM2.5
Total	0.53	4.99	3.22	0.01	25.51	0.17	25.69	2.55	0.16	2.71
ICAPCD Significance	55.00	55.00	550.00	150.00			150.00			
CEQA Significant?	No	No	No	No			No			