



# Attachment 2

**Rincon Consultants, Inc.**

209 East Victoria Street  
Santa Barbara, California 93101

805 319 4092 OFFICE AND FAX

info@rinconconsultants.com  
www.rinconconsultants.com

January 22, 2020  
Project No: 19-08526

Goleta Energy Storage, LLC  
c/o: Ryan Hulett, Principal  
8614 Westwood Center Drive, Suite 1800  
Vienna, Virginia 22182

**Subject: Air Quality and Greenhouse Gas Modeling Results for the Cortona Drive Battery Energy Storage Facility, 6864 and 6868 Cortona Drive, Goleta, California**

Dear Mr. Hulett:

Rincon Consultants, Inc. (Rincon) completed criteria air pollutant and greenhouse gas (GHG) emission estimates using the California Emissions Estimator Model (CalEEMod) for the Goleta Energy Storage, LLC Cortona Drive Battery Energy Storage Facility Project. As detailed in the analysis below, criteria air pollutant emissions would not exceed the Santa Barbara County Air Pollution Control District (SBCAPCD) suggested thresholds, and the project would be consistent with the CARB 2017 Climate Change Scoping Plan.

## Project Description

The project includes installation of a battery energy storage system (BESS) consisting of 84 Megapacks (self-contained energy storage and management cabinets), medium-voltage transformers, inverters, and a high-voltage generator step-up transformer to connect with the underground utility conduit on the west side of Storke Road. The project site consists of an approximately 2.66-acre site at 6864 and 6868 Cortona Drive in Goleta, located adjacent to Storke Road and the Union Pacific Railroad tracks and approximately 300 feet south of U.S. Highway 101.

Project construction would commence immediately following completion of permit plan review, which is anticipated to occur at the end of spring 2020.<sup>1</sup> Construction would occur over the course of four months; therefore, it is assumed that construction would occur from June 2020 through September 2020. Site grading would require approximately 1,800 cubic yards (CY) of cut and 2,400 CY of fill with net import of approximately 600 CY of soil material. The project would include removal of the existing on-site plant nursery and shed; however, no heavy-duty equipment would be required to accomplish their removal. Megapacks would be transported to the site via flatbed trailers and would be placed on pre-manufactured concrete foundations/pads by a crane.

Operation of the proposed project would primarily require remote monitoring and interface. During the first year of operation, personnel would routinely check the battery storage area and accessory substructures approximately twice per month. For the remainder of operation, maintenance trips would

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<sup>1</sup>The assumption construction will occur at the earliest foreseeable date is a conservative assumption because construction equipment is anticipated to become more efficient and with lower air emissions over time. Therefore, assuming the use of the least efficient equipment possible results in reasonable worst-case construction emissions.



be reduced to one trip on alternating months. Maintenance trips would utilize passenger vehicles or small pickup trucks.<sup>2</sup> In addition, operation of the project would require the use of water for landscaping and occasional rinsing of the Megapacks.

## Methodology

The project's construction and operational emissions of criteria air pollutants and GHGs were estimated using the California Emissions Estimator Model (CalEEMod), version 2016.3.2. CalEEMod uses project-specific information, including the project's land uses, acreage, and location, to model a project's construction and operational emissions.

Construction emissions modeled include emissions generated by construction equipment used on site and emissions generated by vehicle trips associated with construction, such as worker and vendor trips. CalEEMod estimates construction emissions by multiplying the amount of time equipment is in operation by emission factors. Construction of the proposed project was analyzed based on the applicant-provided construction schedule and a construction equipment list based on that of a similar BESS project that utilized Tesla Megapacks and included a substation.<sup>3</sup> It is assumed that all construction equipment used would be diesel-powered.

Decommissioning of the project at the end of its useful life would include the removal of Megapacks from the foundations, disconnection of wiring, and transport of Megapacks to the Tesla Gigafactory or other processing partner for recycling. Similar to the construction process, decommissioning would require the use of a crane to remove Megapacks and the use of flatbed trailers for transport. This analysis conservatively assumes that decommissioning would occur in year 2040 and would require the same equipment, number of construction vehicle trips, and schedule as the BESS installation phase.<sup>4</sup>

Operational emissions modeled include emissions from area sources, energy use, water conveyance and treatment, solid waste disposal, and mobile sources (i.e., vehicles). Emissions modeling used the following assumptions:

- **Area Sources.** The project would not include any long-term stationary emission sources because the proposed infrastructure components would be pre-fabricated, and no on-site coating applications would be required.
- **Energy Use.** As a BESS facility, the project would neither generate nor consume electricity itself; therefore, the project would not generate emissions related to energy use.
- **Water Conveyance and Treatment.** Emissions related to water conveyance and treatment would be limited to water used for on-site landscaping and rinsing of Megapacks. Based on information provided for a similar BESS project that utilized Tesla Megapacks, maintenance of on-site landscaping for a BESS facility requires approximately 25,000 gallons of water annually, and routine annual maintenance cleaning of the Megapack radiators utilizes approximately 15 to 30 gallons per

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<sup>2</sup> Associated Transportation Engineers. 2019. *Traffic and Parking Assessment for the Goleta Energy Storage Project – City of Goleta*. November 22, 2019.

<sup>3</sup> Rincon Consultants, Inc. 2019. *Ventura Energy Storage LLC Project Initial Study*. October 2019.

<sup>4</sup> The assumption construction will occur at the earliest foreseeable date is a conservative assumption because construction equipment is anticipated to become more efficient and with lower air emissions over time. Therefore, assuming the use of the least efficient equipment possible results in reasonable worst-case construction emissions.



Megapack during each maintenance event.<sup>5, 6</sup> Therefore, the project's total water demand would be approximately 27,520 gallons per year (25,000 gallons + [30 gallons x 84 Megapacks]).

- **Solid Waste Disposal.** The project would not generate solid waste during operation.
- **Mobile Sources.** Mobile source emissions would be generated by routine operations and maintenance vehicle trips to and from the project site, which would consist of two round trips each month during peak maintenance conditions during the first year of operation. Because CalEEMod does not calculate nitrous oxide (N<sub>2</sub>O) emissions from mobile sources, N<sub>2</sub>O emissions were quantified using guidance from the California Air Resources Board (CARB) and the EMFAC2017 Emissions Inventory for the Santa Barbara County region for the year 2030 (the next State milestone target year for GHG emission reductions) using the EMFAC2011 vehicle classification categories.<sup>7, 8</sup>

## Thresholds

### Criteria Air Pollutants

The SBCAPCD has not adopted quantitative significance criteria for temporary construction emissions associated with conventional land development projects. However, the SBCAPCD recommends quantification of construction-related emissions and uses 25 tons per year for all criteria pollutants (except carbon monoxide) as a guideline for determining the significance of construction impacts for all types of projects.<sup>9, 10</sup> The SBCAPCD also notes that consistency with the Air Quality Attainment Plan requires the implementation of standard dust control measures for all discretionary projects involving earth-moving activities.<sup>11</sup>

The SBCAPCD has recommended the following criteria to determine if a project's operational emissions would have a significant air quality impact:<sup>12</sup>

- Emit (from all project sources, both stationary and mobile) more than 240 pounds per day for reactive organic compounds (ROC) and nitrogen oxides (NO<sub>x</sub>) or more than 80 pounds per day for PM<sub>10</sub> (there is no daily operational threshold for carbon monoxide because it is an attainment pollutant);
- Emit more than 25 pounds per day of NO<sub>x</sub> or ROC from motor vehicle trips only;
- Cause or contribute to a violation of any California or National Ambient Air Quality Standard (except ozone);

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<sup>5</sup> Rincon Consultants, Inc. 2019. *Ventura Energy Storage LLC Project Initial Study*. October 2019.

<sup>6</sup> This estimate of water demand for landscaping is conservative given that the site of the Ventura Energy Storage LLC Project was twice as large as the project site.

<sup>7</sup> CARB. 2018. EMFAC2017 Volume III – Technical Documentation v.1.0.2. July 20, 2018. <https://ww3.arb.ca.gov/msei/downloads/emfac2017-volume-iii-technical-documentation.pdf> (accessed January 2020).

<sup>8</sup> CARB. 2019. EMFAC2017 Web Database. <https://www.arb.ca.gov/emfac/2017/> (accessed January 2020).

<sup>9</sup> SBCAPCD. 2017. *Scope and Content of Air Quality Sections in Environmental Documents*. June 2017. <https://www.ourair.org/wp-content/uploads/ScopeContentJune2017-LimitedUpdate.pdf> (accessed January 2020).

<sup>10</sup> Santa Barbara County is designated attainment for carbon monoxide; therefore, it is not a pollutant of concern.

<sup>11</sup> SBCAPCD. 2017. *Scope and Content of Air Quality Sections in Environmental Documents*. June 2017. <https://www.ourair.org/wp-content/uploads/ScopeContentJune2017-LimitedUpdate.pdf> (accessed January 2020).

<sup>12</sup> Ibid.



- Exceed the SBCAPCD health risk public notification thresholds adopted by the SBCAPCD Board (i.e., 10 excess cancer cases in a million for cancer risk and a Hazard Index of more than 1.0 for non-cancer risk); and/or
- Be inconsistent with the latest adopted federal and state air quality plans.

The project’s potential public health impacts are evaluated in the *Risk Assessment Final Report - Goleta Cortona Drive Energy Storage Project* and therefore are not further considered in this analysis.<sup>13</sup>

## Greenhouse Gas Emissions

Neither the SBCAPCD nor the City of Goleta has adopted a threshold of significance for GHG emissions generated by land use developments that are not stationary sources permitted by SBCAPCD. Therefore, this analysis evaluates the project’s GHG emissions in light of the goals of the CARB 2017 Climate Change Scoping Plan, which provides a framework for achieving the State’s 2030 target of reducing GHG emissions by 40 percent below 1990 levels.

## Analysis

### Criteria Air Pollutants

#### Construction and Decommissioning Emissions

Table 1 summarizes the estimated maximum annual emissions of pollutants associated with project construction and decommissioning. As shown therein, criteria air pollutant emissions generated by project construction and decommissioning would not exceed the suggested SBCAPCD thresholds.

**Table 1 Estimated Maximum Annual Construction and Decommissioning Emissions**

Construction Year	Maximum Annual Emissions (tons/year)					
	ROC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Project Construction	0.2	1.6	1.6	< 0.1	0.2	0.1
Project Decommissioning	0.1	0.3	0.9	< 0.1	< 0.1	< 0.1
SBCAPCD Threshold	25	25	N/A	25	25	25
Threshold Exceeded?	<b>No</b>	<b>No</b>	<b>N/A</b>	<b>No</b>	<b>No</b>	<b>No</b>

ROC = reactive organic compounds; NO<sub>x</sub> = nitrogen oxides; CO = carbon monoxide; SO<sub>2</sub> = sulfur dioxide; PM<sub>10</sub> = particulate matter measuring 10 microns or less in diameter; PM<sub>2.5</sub> = particulate matter measuring 2.5 microns or less in diameter; N/A = not applicable (The SBCAPCD has not suggested thresholds for construction-related emissions of these pollutants.); CalEEMod = California Emissions Estimator Model

Notes: All emissions modelling was completed made using CalEEMod. See Attachment 1 for modeling results. Some numbers may not add up due to rounding.

<sup>13</sup> MRS Environmental. 2019. *Risk Assessment Final Report - Goleta Cortona Drive Energy Storage Project*. October 18, 2019.



Although construction-related emissions would not exceed the suggested SBCAPCD thresholds, SBCAPCD requires implementation of the following standard dust control measures for all discretionary projects involving earth-moving activities:

- During construction, water trucks or sprinkler systems shall be used to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. At a minimum, this should include wetting down such areas in the late morning and after work is completed for the day. Increased watering frequency should be required whenever the wind speed exceeds 15 miles per hour. Reclaimed water should be used whenever possible. However, reclaimed water should not be used in or around crops for human consumption.
- The amount of disturbed area shall be minimized, and on-site vehicle speeds shall be reduced to 15 miles per hour or less.
- If import, export, and stockpiling of fill material is involved, soil stockpiled for more than two days shall be covered, kept moist, or treated with soil binders to prevent dust generation. Trucks transporting fill material to and from the site shall be tarped from the point of origin.
- Gravel pads shall be installed at all access points to prevent tracking of mud onto public roads.
- After clearing, grading, earth moving or excavation is completed, the disturbed area shall be treated by watering, or revegetating, or by spreading soil binders until the area is paved or otherwise developed so that dust generation will not occur.
- The contractor or builder shall designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust off site. Their duties shall include holiday and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the SBCAPCD prior to grading/building permit issuance and/or map clearance.

## Operational Emissions

Operational emissions of criteria air pollutants generated by the proposed project would be limited to emissions from routine operations and maintenance vehicle trips.<sup>14</sup> Table 2 summarizes the total estimated emissions associated with operations and maintenance trips. As shown therein, operational emissions generated by the proposed project would not exceed SBCAPCD thresholds. Furthermore, energy storage systems such as the proposed project assist utilities, such as Southern California Edison (SCE), in achieving criteria air pollutant emission reductions by providing the means of storing excess electricity generated during off-peak hours for use during peak hours as an alternative to operating peaker power plants.<sup>15</sup> By expanding SCE's access to energy storage systems, the project would increase the stability and reliability of the existing electrical grid, thereby reducing the need for additional electricity to be generated by fossil fuel power plants during peak hours. The energy conservation achieved by the project would reduce fossil fuel consumption, thereby reducing criteria air pollutant emissions from the electricity sector.

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<sup>14</sup> Criteria air pollutant emissions from electricity generation are not attributed to individual projects because fossil fuel power plants are existing stationary sources permitted by air districts and/or the United States Environmental Protection Agency, and they are subject to local, state and federal control measures. Criteria pollutant emissions from power plants are associated with the power plants themselves and not individual projects such as the proposed BESS facility.

<sup>15</sup> Peaker plants are power plants that are operated only when demand for electricity is high (i.e., during times of peak demand). According to its 2017-2018 Integrated Resource Plan, SCE's peaker power plants are powered by natural gas (available at: <https://www.cpuc.ca.gov/General.aspx?id=6442458628>).



**Table 2 Operational Emissions**

Source	Maximum Emissions (pounds/day)		
	ROC	NO <sub>x</sub>	PM <sub>10</sub>
Operations and Maintenance Trips	< 0.1	< 0.1	< 0.1
<b>Total</b>	<b>&lt; 0.1</b>	<b>&lt; 0.1</b>	<b>&lt; 0.1</b>
Threshold (area + energy + mobile)	240	240	80
Threshold Exceeded?	No	No	No
Threshold (mobile only)	25	25	N/A
Threshold Exceeded?	No	No	N/A

ROC = reactive organic compounds; NO<sub>x</sub> = nitrogen oxides; PM<sub>10</sub> = particulate matter measuring 10 microns or less in diameter; N/A = not applicable (The SBCAPCD has not suggested thresholds for operational mobile source emissions of PM<sub>10</sub>); CalEEMod = California Emissions Estimator Model  
 Notes: All emissions modelling was completed made using CalEEMod. See Attachment 1 for modeling results. Some numbers may not add up due to rounding.

### Consistency with the 2016 Ozone Plan

To be determined to be consistent with the current air quality attainment plan (2016 Ozone Plan), the project’s direct and indirect emissions must be accounted for in the growth assumptions in the 2016 Ozone Plan, and the project must be consistent with the policies adopted in the 2016 Ozone Plan. Additionally, in determining consistency with the 2016 Ozone Plan, commercial and industrial projects must be tracked pursuant to the local Congestion Management Plan and are determined to be consistent with the 2016 Ozone Plan if they are consistent with SBCAPCD rules and regulations. The Ozone Plan relies primarily on the land use and population projections provided by the Santa Barbara County Association of Governments and CARB on-road emissions forecast as a basis for vehicle emission forecasting.<sup>16</sup>

The proposed project would not involve a residential use that would directly induce population growth. In addition, the project would not require new employees for operations and maintenance, and due to the relatively small size of the proposed project, it is anticipated construction workers would be from the existing local or regional workforce. Therefore, the project would not indirectly induce population growth. Accordingly, the project would be consistent with the 2016 Ozone Plan because it would not cause an exceedance of the growth projections that underlie its air pollutant emission forecasts.

### Greenhouse Gas Emissions

Table 3 summarizes the project’s combined construction and operational GHG emissions. Construction and decommissioning emissions were amortized over a 30-year period (the assumed project lifetime). As shown therein, combined GHG emissions would be approximately 13.6 metric tons (MT) of carbon dioxide equivalents (CO<sub>2</sub>e) per year.

<sup>16</sup> SBCAPCD. 2017. Scope and Content of Air Quality Sections in Environmental Documents. June 2017. <https://www.ourair.org/wp-content/uploads/ScopeContentJune2017-LimitedUpdate.pdf> (accessed January 2020).



**Table 3 Combined Annual Emissions of Greenhouse Gases**

Emission Source	Proposed Project Emissions (MT of CO <sub>2</sub> e)
<b>Construction<sup>1</sup></b>	8.4
<b>Decommissioning<sup>1</sup></b>	5.2
<b>Water</b>	< 0.1
<b>Mobile</b>	
CO <sub>2</sub> and CH <sub>4</sub>	1.0
N <sub>2</sub> O	< 0.1
<b>Total Project Emissions</b>	<b>13.6</b>

MT = metric tons; CO<sub>2</sub>e = carbon dioxide equivalents; CalEEMod = California Emissions Estimator Model

<sup>1</sup> Emissions from construction and decommissioning were amortized over a 30-year period (the assumed project lifetime).

Notes: Emissions modeling was completed using CalEEMod and standalone N<sub>2</sub>O emissions calculations for mobile sources in accordance with applicant-provided information and data. See Attachment 1 for modeling results.

In the absence of an adopted quantitative threshold to evaluate the significance of the project’s GHG emissions, the project is evaluated in light of the goals of the CARB 2017 Climate Change Scoping Plan. Approximately 15 percent of GHG emissions in 2017 were generated by the electricity sector with 9 percent from in-state electricity generation and 6 percent from imported electricity generation. One of the goals of the 2017 Scoping Plan is “per AB 2868 (Gatto, Chapter 681, Statutes of 2016), encourage development of additional energy storage capacity on the transmission and distribution system.”<sup>17</sup> As discussed under *Criteria Air Pollutants*, expansion of energy storage systems helps utilities, like SCE, achieve GHG emission reductions by providing the means of storing excess electricity generated during off-peak hours for use during peak hours as an alternative to operating peaker power plants, which are primarily powered by natural gas in the SCE service area.

The proposed project would construct a BESS with associated electrical transmission infrastructure. By expanding SCE’s access to energy storage systems, the project would increase the stability and reliability of the existing electrical grid, thereby reducing the need for additional electricity to be generated by fossil fuel power plants during peak hours. The energy conservation achieved by the project would reduce fossil fuel consumption, thereby reducing GHG emissions from the electricity sector. Therefore, although the project would generate temporary construction emissions and minimal operational emissions, the project would ultimately be consistent with the GHG reduction goals of the 2017 Climate Change Scoping Plan by reducing GHG emissions from the electricity sector.

## Conclusion

Criteria air pollutant emissions would not exceed SBCAPCD suggested thresholds, and the project would be consistent with the CARB 2017 Climate Change Scoping Plan.

<sup>17</sup> California Air Resources Board. 2017. California’s 2017 Climate Change Scoping Plan. November 2017.



Thank you for the opportunity to assist with this assignment. Please do not hesitate to contact us if you have questions about this report.

Sincerely,  
**Rincon Consultants, Inc.**

A handwritten signature in blue ink that reads "Annaliese Miller".

Annaliese Miller  
Associate Environmental Planner

A handwritten signature in blue ink that reads "Jennifer Haddow".

Jennifer Haddow, PhD  
Principal Environmental Scientist

### **Attachments**

Attachment 1      Air Quality and Greenhouse Gas Modeling Results



# Attachment 1

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Air Quality and Greenhouse Gas Modeling Results

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Annual

**Goleta Energy Storage Project**  
**Santa Barbara County APCD Air District, Annual**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	2.66	Acre	2.66	115,869.60	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.9	<b>Precipitation Freq (Days)</b>	37
<b>Climate Zone</b>	8			<b>Operational Year</b>	2021
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	702.44	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Annual

Project Characteristics - Construction to start after permitting process is complete

Land Use - Size of project site.

Construction Phase - 4 months of construction according to applicant. Phase lengths based on Ventura Energy Storage project

Off-road Equipment - Info provided by Tesla.

Off-road Equipment - Based on Ventura Energy Storage project

Off-road Equipment - Based on Ventura Energy Storage project

Off-road Equipment - Based on Ventura Energy Storage project

Off-road Equipment - Based on Ventura Energy Storage project

Off-road Equipment - Based on Ventura Energy Storage project

Off-road Equipment - Based on Ventura Energy Storage project

Off-road Equipment - Based on Ventura Energy Storage project

Off-road Equipment - Based on Ventura Energy Storage project

Trips and VMT - Assuming up to 2 Megapacks per day plus 1 extra daily roundtrip for other components. Reduced substation vendor trips due to site size.

Demolition - No demolition using heavy equipment required.

Grading - Based on applicant-provided information.

Vehicle Trips - Twice monthly O&M visit during first year.

Energy Use - No new energy sources.

Water And Wastewater - Assumes 25,000 gallons for landscaping and 2,520 gallons for O&M.

Solid Waste - No operational solid waste generation.

Construction Off-road Equipment Mitigation -

Operational Off-Road Equipment - -

Fleet Mix - O&M staff would use LDA and LDT1 only.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	3.00	6.00
tblConstructionPhase	NumDays	6.00	12.00
tblConstructionPhase	NumDays	220.00	66.00

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Annual

tblConstructionPhase	NumDays	220.00	66.00
tblConstructionPhase	NumDays	220.00	5.00
tblConstructionPhase	NumDays	220.00	1.00
tblConstructionPhase	NumDays	10.00	4.00
tblConstructionPhase	NumDays	220.00	66.00
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tblFleetMix	LDA	0.56	0.50
tblFleetMix	LDT1	0.03	0.50
tblFleetMix	LDT2	0.20	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.8120e-003	0.00
tblFleetMix	MCY	7.0530e-003	0.00
tblFleetMix	MDV	0.13	0.00
tblFleetMix	MH	1.0770e-003	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	2.7730e-003	0.00
tblFleetMix	SBUS	2.6770e-003	0.00
tblFleetMix	UBUS	2.3770e-003	0.00
tblGrading	MaterialImported	0.00	600.00
tblOffRoadEquipment	HorsePower	247.00	80.00
tblOffRoadEquipment	HorsePower	97.00	70.00
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Goleta Energy Storage Project - Santa Barbara County APCD Air District, Annual

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
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tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	VendorTripNumber	19.00	6.00
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tblTripsAndVMT	VendorTripNumber	19.00	0.00
tblTripsAndVMT	VendorTripNumber	19.00	0.00
tblTripsAndVMT	VendorTripNumber	19.00	6.00
tblTripsAndVMT	WorkerTripNumber	49.00	0.00
tblTripsAndVMT	WorkerTripNumber	49.00	0.00
tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	WD_TR	0.00	0.08
tblWater	OutdoorWaterUseRate	0.00	10,346.00

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Annual

**2.0 Emissions Summary**

**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					
2020	0.1782	1.6208	1.5742	2.8600e-003	0.0740	0.0853	0.1593	0.0318	0.0813	0.1131	0.0000	249.8817	249.8817	0.0491	0.0000	251.1101
2040	0.0591	0.3104	0.9129	1.7900e-003	0.0111	4.2400e-003	0.0154	2.9900e-003	4.2400e-003	7.2300e-003	0.0000	154.7539	154.7539	4.9700e-003	0.0000	154.8782
<b>Maximum</b>	<b>0.1782</b>	<b>1.6208</b>	<b>1.5742</b>	<b>2.8600e-003</b>	<b>0.0740</b>	<b>0.0853</b>	<b>0.1593</b>	<b>0.0318</b>	<b>0.0813</b>	<b>0.1131</b>	<b>0.0000</b>	<b>249.8817</b>	<b>249.8817</b>	<b>0.0491</b>	<b>0.0000</b>	<b>251.1101</b>

**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					
2020	0.1782	1.6208	1.5742	2.8600e-003	0.0740	0.0853	0.1593	0.0318	0.0813	0.1131	0.0000	249.8815	249.8815	0.0491	0.0000	251.1099
2040	0.0591	0.3104	0.9129	1.7900e-003	0.0111	4.2400e-003	0.0154	2.9900e-003	4.2400e-003	7.2300e-003	0.0000	154.7537	154.7537	4.9700e-003	0.0000	154.8781
<b>Maximum</b>	<b>0.1782</b>	<b>1.6208</b>	<b>1.5742</b>	<b>2.8600e-003</b>	<b>0.0740</b>	<b>0.0853</b>	<b>0.1593</b>	<b>0.0318</b>	<b>0.0813</b>	<b>0.1131</b>	<b>0.0000</b>	<b>249.8815</b>	<b>249.8815</b>	<b>0.0491</b>	<b>0.0000</b>	<b>251.1099</b>

Goleta Energy Storage Project - Santa Barbara County APCD Air District, 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
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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-1-2020	8-31-2020	1.3391	1.3391
2	9-1-2020	11-30-2020	0.4446	0.4446
79	12-1-2039	2-29-2040	0.2399	0.2399
80	3-1-2040	5-31-2040	0.1320	0.1320
		Highest	1.3391	1.3391

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	tons/yr										MT/yr					
Area	0.0115	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	5.0000e-005
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	4.0000e-005	4.0000e-005	4.5000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0852	0.0852	0.0000	0.0000	0.0853
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	0.0115	0.0115	0.0000	0.0000	0.0116
<b>Total</b>	<b>0.0116</b>	<b>4.0000e-005</b>	<b>4.7000e-004</b>	<b>0.0000</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>1.1000e-004</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0968</b>	<b>0.0968</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0969</b>

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**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	0.0115	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	5.0000e-005
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	4.0000e-005	4.0000e-005	4.5000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0852	0.0852	0.0000	0.0000	0.0853
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	0.0115	0.0115	0.0000	0.0000	0.0116
<b>Total</b>	<b>0.0116</b>	<b>4.0000e-005</b>	<b>4.7000e-004</b>	<b>0.0000</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>1.1000e-004</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0968</b>	<b>0.0968</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0969</b>

	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**



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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2020	6/8/2020	5	6	
2	Grading	Grading	6/9/2020	6/24/2020	5	12	
3	Sub Installation	Building Construction	6/25/2020	9/24/2020	5	66	
4	BESS Installation	Building Construction	6/25/2020	9/24/2020	5	66	
5	Sub Excavator	Building Construction	7/1/2020	7/7/2020	5	5	
6	Sub Crane	Building Construction	7/13/2020	7/13/2020	5	1	
7	Surfacing/Paving	Paving	9/25/2020	9/30/2020	5	4	
8	Decommissioning	Building Construction	1/1/2040	4/2/2040	5	66	

Acres of Grading (Site Preparation Phase): 3

Acres of Grading (Grading Phase): 6

Acres of Paving: 2.66

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
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	8.00	80	0.40
Site Preparation	Skid Steer Loaders	1	8.00	65	0.37
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Plate Compactors	1	8.00	8	0.43
Grading	Rollers	1	8.00	80	0.38
Grading	Rubber Tired Dozers	1	6.00	80	0.40

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Grading	Skid Steer Loaders	1	8.00	65	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Sub Installation	Aerial Lifts	1	6.00	63	0.31
Sub Installation	Air Compressors	1	8.00	78	0.48
Sub Installation	Bore/Drill Rigs	1	4.00	221	0.50
Sub Installation	Excavators	1	4.00	158	0.38
Sub Installation	Forklifts	1	6.00	89	0.20
Sub Installation	Generator Sets	1	8.00	84	0.74
Sub Installation	Other Construction Equipment	1	4.00	172	0.42
Sub Installation	Other Material Handling Equipment	1	4.00	168	0.40
Sub Installation	Plate Compactors	1	8.00	8	0.43
Sub Installation	Rubber Tired Dozers	1	4.00	80	0.40
Sub Installation	Skid Steer Loaders	1	4.00	65	0.37
Sub Installation	Tractors/Loaders/Backhoes	1	4.00	70	0.37
Sub Installation	Trenchers	1	4.00	78	0.50
BESS Installation	Air Compressors	2	8.00	78	0.48
BESS Installation	Cranes	1	7.00	231	0.29
BESS Installation	Excavators	1	8.00	158	0.38
BESS Installation	Forklifts	1	8.00	89	0.20
BESS Installation	Generator Sets	2	8.00	84	0.74
BESS Installation	Plate Compactors	1	8.00	8	0.43
BESS Installation	Rollers	1	8.00	80	0.38
BESS Installation	Skid Steer Loaders	1	8.00	65	0.37
BESS Installation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Sub Excavator	Excavators	1	8.00	158	0.38
Sub Crane	Cranes	1	8.00	231	0.29
Surfacing/Paving	Graders	1	8.00	187	0.41

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Surfacing/Paving	Plate Compactors	1	4.00	8	0.43
Surfacing/Paving	Rollers	1	4.00	80	0.38
Surfacing/Paving	Rubber Tired Dozers	1	4.00	80	0.40
Surfacing/Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Decommissioning	Air Compressors	2	8.00	78	0.48
Decommissioning	Cranes	1	7.00	231	0.29
Decommissioning	Excavators	2	8.00	158	0.38
Decommissioning	Forklifts	1	8.00	89	0.20
Decommissioning	Generator Sets	2	8.00	84	0.74
Decommissioning	Plate Compactors	1	8.00	8	0.43
Decommissioning	Rollers	1	8.00	80	0.38
Decommissioning	Skid Steer Loaders	1	8.00	65	0.37
Decommissioning	Tractors/Loaders/Backhoes	1	7.00	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
Site Preparation	5	13.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	7	18.00	0.00	75.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Sub Installation	13	49.00	6.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
BESS Installation	11	49.00	6.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Sub Excavator	1	0.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Sub Crane	1	0.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Surfacing/Paving	5	13.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Decommissioning	12	49.00	6.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

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**3.2 Site Preparation - 2020**

**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					0.0197	0.0000	0.0197	0.0101	0.0000	0.0101	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9200e-003	0.0348	0.0233	4.0000e-005		1.5400e-003	1.5400e-003		1.4200e-003	1.4200e-003	0.0000	3.9311	3.9311	1.2700e-003	0.0000	3.9629
<b>Total</b>	<b>2.9200e-003</b>	<b>0.0348</b>	<b>0.0233</b>	<b>4.0000e-005</b>	<b>0.0197</b>	<b>1.5400e-003</b>	<b>0.0212</b>	<b>0.0101</b>	<b>1.4200e-003</b>	<b>0.0115</b>	<b>0.0000</b>	<b>3.9311</b>	<b>3.9311</b>	<b>1.2700e-003</b>	<b>0.0000</b>	<b>3.9629</b>

**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	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	1.3000e-004	1.1000e-004	9.3000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	7.0000e-005	0.0000	0.1967	0.1967	1.0000e-005	0.0000	0.1969
<b>Total</b>	<b>1.3000e-004</b>	<b>1.1000e-004</b>	<b>9.3000e-004</b>	<b>0.0000</b>	<b>2.4000e-004</b>	<b>0.0000</b>	<b>2.4000e-004</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>0.1967</b>	<b>0.1967</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.1969</b>

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**3.2 Site Preparation - 2020**

**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					0.0197	0.0000	0.0197	0.0101	0.0000	0.0101	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9200e-003	0.0348	0.0233	4.0000e-005		1.5400e-003	1.5400e-003		1.4200e-003	1.4200e-003	0.0000	3.9311	3.9311	1.2700e-003	0.0000	3.9629
<b>Total</b>	<b>2.9200e-003</b>	<b>0.0348</b>	<b>0.0233</b>	<b>4.0000e-005</b>	<b>0.0197</b>	<b>1.5400e-003</b>	<b>0.0212</b>	<b>0.0101</b>	<b>1.4200e-003</b>	<b>0.0115</b>	<b>0.0000</b>	<b>3.9311</b>	<b>3.9311</b>	<b>1.2700e-003</b>	<b>0.0000</b>	<b>3.9629</b>

**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	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	1.3000e-004	1.1000e-004	9.3000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	7.0000e-005	0.0000	0.1967	0.1967	1.0000e-005	0.0000	0.1969
<b>Total</b>	<b>1.3000e-004</b>	<b>1.1000e-004</b>	<b>9.3000e-004</b>	<b>0.0000</b>	<b>2.4000e-004</b>	<b>0.0000</b>	<b>2.4000e-004</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>0.1967</b>	<b>0.1967</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.1969</b>

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**3.3 Grading - 2020**

**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					0.0303	0.0000	0.0303	0.0153	0.0000	0.0153	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.3400e-003	0.0836	0.0592	1.1000e-004		3.9400e-003	3.9400e-003		3.6300e-003	3.6300e-003	0.0000	9.4327	9.4327	3.0100e-003	0.0000	9.5080
<b>Total</b>	<b>7.3400e-003</b>	<b>0.0836</b>	<b>0.0592</b>	<b>1.1000e-004</b>	<b>0.0303</b>	<b>3.9400e-003</b>	<b>0.0343</b>	<b>0.0153</b>	<b>3.6300e-003</b>	<b>0.0189</b>	<b>0.0000</b>	<b>9.4327</b>	<b>9.4327</b>	<b>3.0100e-003</b>	<b>0.0000</b>	<b>9.5080</b>

**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	3.1000e-004	0.0115	3.3400e-003	3.0000e-005	6.4000e-004	5.0000e-005	6.9000e-004	1.8000e-004	4.0000e-005	2.2000e-004	0.0000	2.9351	2.9351	2.7000e-004	0.0000	2.9418
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	3.5000e-004	2.9000e-004	2.5600e-003	1.0000e-005	6.7000e-004	0.0000	6.7000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.5448	0.5448	2.0000e-005	0.0000	0.5453
<b>Total</b>	<b>6.6000e-004</b>	<b>0.0118</b>	<b>5.9000e-003</b>	<b>4.0000e-005</b>	<b>1.3100e-003</b>	<b>5.0000e-005</b>	<b>1.3600e-003</b>	<b>3.6000e-004</b>	<b>4.0000e-005</b>	<b>4.0000e-004</b>	<b>0.0000</b>	<b>3.4799</b>	<b>3.4799</b>	<b>2.9000e-004</b>	<b>0.0000</b>	<b>3.4871</b>

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**3.3 Grading - 2020**

**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					0.0303	0.0000	0.0303	0.0153	0.0000	0.0153	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.3400e-003	0.0836	0.0592	1.1000e-004		3.9400e-003	3.9400e-003		3.6300e-003	3.6300e-003	0.0000	9.4327	9.4327	3.0100e-003	0.0000	9.5080
<b>Total</b>	<b>7.3400e-003</b>	<b>0.0836</b>	<b>0.0592</b>	<b>1.1000e-004</b>	<b>0.0303</b>	<b>3.9400e-003</b>	<b>0.0343</b>	<b>0.0153</b>	<b>3.6300e-003</b>	<b>0.0189</b>	<b>0.0000</b>	<b>9.4327</b>	<b>9.4327</b>	<b>3.0100e-003</b>	<b>0.0000</b>	<b>9.5080</b>

**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	3.1000e-004	0.0115	3.3400e-003	3.0000e-005	6.4000e-004	5.0000e-005	6.9000e-004	1.8000e-004	4.0000e-005	2.2000e-004	0.0000	2.9351	2.9351	2.7000e-004	0.0000	2.9418
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	3.5000e-004	2.9000e-004	2.5600e-003	1.0000e-005	6.7000e-004	0.0000	6.7000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.5448	0.5448	2.0000e-005	0.0000	0.5453
<b>Total</b>	<b>6.6000e-004</b>	<b>0.0118</b>	<b>5.9000e-003</b>	<b>4.0000e-005</b>	<b>1.3100e-003</b>	<b>5.0000e-005</b>	<b>1.3600e-003</b>	<b>3.6000e-004</b>	<b>4.0000e-005</b>	<b>4.0000e-004</b>	<b>0.0000</b>	<b>3.4799</b>	<b>3.4799</b>	<b>2.9000e-004</b>	<b>0.0000</b>	<b>3.4871</b>

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**3.4 Sub Installation - 2020**

**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	0.0621	0.5811	0.5780	1.0100e-003		0.0319	0.0319		0.0303	0.0303	0.0000	87.4757	87.4757	0.0203	0.0000	87.9837
<b>Total</b>	<b>0.0621</b>	<b>0.5811</b>	<b>0.5780</b>	<b>1.0100e-003</b>		<b>0.0319</b>	<b>0.0319</b>		<b>0.0303</b>	<b>0.0303</b>	<b>0.0000</b>	<b>87.4757</b>	<b>87.4757</b>	<b>0.0203</b>	<b>0.0000</b>	<b>87.9837</b>

**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	7.9000e-004	0.0220	7.6700e-003	5.0000e-005	1.1500e-003	1.2000e-004	1.2700e-003	3.3000e-004	1.1000e-004	4.5000e-004	0.0000	4.6184	4.6184	3.5000e-004	0.0000	4.6271
Worker	5.1900e-003	4.3900e-003	0.0384	9.0000e-005	9.9900e-003	7.0000e-005	0.0101	2.6500e-003	6.0000e-005	2.7100e-003	0.0000	8.1568	8.1568	2.8000e-004	0.0000	8.1637
<b>Total</b>	<b>5.9800e-003</b>	<b>0.0264</b>	<b>0.0460</b>	<b>1.4000e-004</b>	<b>0.0111</b>	<b>1.9000e-004</b>	<b>0.0113</b>	<b>2.9800e-003</b>	<b>1.7000e-004</b>	<b>3.1600e-003</b>	<b>0.0000</b>	<b>12.7751</b>	<b>12.7751</b>	<b>6.3000e-004</b>	<b>0.0000</b>	<b>12.7908</b>



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**3.4 Sub Installation - 2020**

**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	0.0621	0.5811	0.5780	1.0100e-003		0.0319	0.0319		0.0303	0.0303	0.0000	87.4756	87.4756	0.0203	0.0000	87.9836
<b>Total</b>	<b>0.0621</b>	<b>0.5811</b>	<b>0.5780</b>	<b>1.0100e-003</b>		<b>0.0319</b>	<b>0.0319</b>		<b>0.0303</b>	<b>0.0303</b>	<b>0.0000</b>	<b>87.4756</b>	<b>87.4756</b>	<b>0.0203</b>	<b>0.0000</b>	<b>87.9836</b>

**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	7.9000e-004	0.0220	7.6700e-003	5.0000e-005	1.1500e-003	1.2000e-004	1.2700e-003	3.3000e-004	1.1000e-004	4.5000e-004	0.0000	4.6184	4.6184	3.5000e-004	0.0000	4.6271
Worker	5.1900e-003	4.3900e-003	0.0384	9.0000e-005	9.9900e-003	7.0000e-005	0.0101	2.6500e-003	6.0000e-005	2.7100e-003	0.0000	8.1568	8.1568	2.8000e-004	0.0000	8.1637
<b>Total</b>	<b>5.9800e-003</b>	<b>0.0264</b>	<b>0.0460</b>	<b>1.4000e-004</b>	<b>0.0111</b>	<b>1.9000e-004</b>	<b>0.0113</b>	<b>2.9800e-003</b>	<b>1.7000e-004</b>	<b>3.1600e-003</b>	<b>0.0000</b>	<b>12.7751</b>	<b>12.7751</b>	<b>6.3000e-004</b>	<b>0.0000</b>	<b>12.7908</b>

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**3.5 BESS Installation - 2020**

**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	0.0905	0.8287	0.7947	1.3400e-003		0.0462	0.0462		0.0444	0.0444	0.0000	116.3228	116.3228	0.0219	0.0000	116.8704
<b>Total</b>	<b>0.0905</b>	<b>0.8287</b>	<b>0.7947</b>	<b>1.3400e-003</b>		<b>0.0462</b>	<b>0.0462</b>		<b>0.0444</b>	<b>0.0444</b>	<b>0.0000</b>	<b>116.3228</b>	<b>116.3228</b>	<b>0.0219</b>	<b>0.0000</b>	<b>116.8704</b>

**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	7.9000e-004	0.0220	7.6700e-003	5.0000e-005	1.1500e-003	1.2000e-004	1.2700e-003	3.3000e-004	1.1000e-004	4.5000e-004	0.0000	4.6184	4.6184	3.5000e-004	0.0000	4.6271
Worker	5.1900e-003	4.3900e-003	0.0384	9.0000e-005	9.9900e-003	7.0000e-005	0.0101	2.6500e-003	6.0000e-005	2.7100e-003	0.0000	8.1568	8.1568	2.8000e-004	0.0000	8.1637
<b>Total</b>	<b>5.9800e-003</b>	<b>0.0264</b>	<b>0.0460</b>	<b>1.4000e-004</b>	<b>0.0111</b>	<b>1.9000e-004</b>	<b>0.0113</b>	<b>2.9800e-003</b>	<b>1.7000e-004</b>	<b>3.1600e-003</b>	<b>0.0000</b>	<b>12.7751</b>	<b>12.7751</b>	<b>6.3000e-004</b>	<b>0.0000</b>	<b>12.7908</b>

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**3.5 BESS Installation - 2020**

**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	0.0905	0.8287	0.7947	1.3400e-003		0.0462	0.0462		0.0444	0.0444	0.0000	116.3227	116.3227	0.0219	0.0000	116.8703
<b>Total</b>	<b>0.0905</b>	<b>0.8287</b>	<b>0.7947</b>	<b>1.3400e-003</b>		<b>0.0462</b>	<b>0.0462</b>		<b>0.0444</b>	<b>0.0444</b>	<b>0.0000</b>	<b>116.3227</b>	<b>116.3227</b>	<b>0.0219</b>	<b>0.0000</b>	<b>116.8703</b>

**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	7.9000e-004	0.0220	7.6700e-003	5.0000e-005	1.1500e-003	1.2000e-004	1.2700e-003	3.3000e-004	1.1000e-004	4.5000e-004	0.0000	4.6184	4.6184	3.5000e-004	0.0000	4.6271
Worker	5.1900e-003	4.3900e-003	0.0384	9.0000e-005	9.9900e-003	7.0000e-005	0.0101	2.6500e-003	6.0000e-005	2.7100e-003	0.0000	8.1568	8.1568	2.8000e-004	0.0000	8.1637
<b>Total</b>	<b>5.9800e-003</b>	<b>0.0264</b>	<b>0.0460</b>	<b>1.4000e-004</b>	<b>0.0111</b>	<b>1.9000e-004</b>	<b>0.0113</b>	<b>2.9800e-003</b>	<b>1.7000e-004</b>	<b>3.1600e-003</b>	<b>0.0000</b>	<b>12.7751</b>	<b>12.7751</b>	<b>6.3000e-004</b>	<b>0.0000</b>	<b>12.7908</b>









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**3.8 Surfacing/Paving - 2020**

**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	1.6200e-003	0.0192	0.0103	2.0000e-005		8.1000e-004	8.1000e-004		7.5000e-004	7.5000e-004	0.0000	1.9736	1.9736	6.3000e-004	0.0000	1.9894
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>1.6200e-003</b>	<b>0.0192</b>	<b>0.0103</b>	<b>2.0000e-005</b>		<b>8.1000e-004</b>	<b>8.1000e-004</b>		<b>7.5000e-004</b>	<b>7.5000e-004</b>	<b>0.0000</b>	<b>1.9736</b>	<b>1.9736</b>	<b>6.3000e-004</b>	<b>0.0000</b>	<b>1.9894</b>

**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	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	8.0000e-005	7.0000e-005	6.2000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1312	0.1312	0.0000	0.0000	0.1313
<b>Total</b>	<b>8.0000e-005</b>	<b>7.0000e-005</b>	<b>6.2000e-004</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.1312</b>	<b>0.1312</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.1313</b>



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**3.8 Surfacing/Paving - 2020**

**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	1.6200e-003	0.0192	0.0103	2.0000e-005		8.1000e-004	8.1000e-004		7.5000e-004	7.5000e-004	0.0000	1.9736	1.9736	6.3000e-004	0.0000	1.9894
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>1.6200e-003</b>	<b>0.0192</b>	<b>0.0103</b>	<b>2.0000e-005</b>		<b>8.1000e-004</b>	<b>8.1000e-004</b>		<b>7.5000e-004</b>	<b>7.5000e-004</b>	<b>0.0000</b>	<b>1.9736</b>	<b>1.9736</b>	<b>6.3000e-004</b>	<b>0.0000</b>	<b>1.9894</b>

**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	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	8.0000e-005	7.0000e-005	6.2000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1312	0.1312	0.0000	0.0000	0.1313
<b>Total</b>	<b>8.0000e-005</b>	<b>7.0000e-005</b>	<b>6.2000e-004</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.1312</b>	<b>0.1312</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.1313</b>

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**3.9 Decommissioning - 2040**

**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	0.0573	0.2966	0.8988	1.7000e-003		4.2100e-003	4.2100e-003		4.2100e-003	4.2100e-003	0.0000	145.5270	145.5270	4.5200e-003	0.0000	145.6401
<b>Total</b>	<b>0.0573</b>	<b>0.2966</b>	<b>0.8988</b>	<b>1.7000e-003</b>		<b>4.2100e-003</b>	<b>4.2100e-003</b>		<b>4.2100e-003</b>	<b>4.2100e-003</b>	<b>0.0000</b>	<b>145.5270</b>	<b>145.5270</b>	<b>4.5200e-003</b>	<b>0.0000</b>	<b>145.6401</b>

**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	3.1000e-004	0.0129	4.0300e-003	4.0000e-005	1.1500e-003	1.0000e-005	1.1600e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	4.2590	4.2590	4.1000e-004	0.0000	4.2691
Worker	1.4800e-003	8.3000e-004	0.0101	5.0000e-005	9.9900e-003	2.0000e-005	0.0100	2.6500e-003	2.0000e-005	2.6800e-003	0.0000	4.9679	4.9679	4.0000e-005	0.0000	4.9690
<b>Total</b>	<b>1.7900e-003</b>	<b>0.0137</b>	<b>0.0141</b>	<b>9.0000e-005</b>	<b>0.0111</b>	<b>3.0000e-005</b>	<b>0.0112</b>	<b>2.9800e-003</b>	<b>3.0000e-005</b>	<b>3.0200e-003</b>	<b>0.0000</b>	<b>9.2269</b>	<b>9.2269</b>	<b>4.5000e-004</b>	<b>0.0000</b>	<b>9.2381</b>

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**3.9 Decommissioning - 2040**

**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	0.0573	0.2966	0.8988	1.7000e-003		4.2100e-003	4.2100e-003		4.2100e-003	4.2100e-003	0.0000	145.5269	145.5269	4.5200e-003	0.0000	145.6399
<b>Total</b>	<b>0.0573</b>	<b>0.2966</b>	<b>0.8988</b>	<b>1.7000e-003</b>		<b>4.2100e-003</b>	<b>4.2100e-003</b>		<b>4.2100e-003</b>	<b>4.2100e-003</b>	<b>0.0000</b>	<b>145.5269</b>	<b>145.5269</b>	<b>4.5200e-003</b>	<b>0.0000</b>	<b>145.6399</b>

**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	3.1000e-004	0.0129	4.0300e-003	4.0000e-005	1.1500e-003	1.0000e-005	1.1600e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	4.2590	4.2590	4.1000e-004	0.0000	4.2691
Worker	1.4800e-003	8.3000e-004	0.0101	5.0000e-005	9.9900e-003	2.0000e-005	0.0100	2.6500e-003	2.0000e-005	2.6800e-003	0.0000	4.9679	4.9679	4.0000e-005	0.0000	4.9690
<b>Total</b>	<b>1.7900e-003</b>	<b>0.0137</b>	<b>0.0141</b>	<b>9.0000e-005</b>	<b>0.0111</b>	<b>3.0000e-005</b>	<b>0.0112</b>	<b>2.9800e-003</b>	<b>3.0000e-005</b>	<b>3.0200e-003</b>	<b>0.0000</b>	<b>9.2269</b>	<b>9.2269</b>	<b>4.5000e-004</b>	<b>0.0000</b>	<b>9.2381</b>

**4.0 Operational Detail - Mobile**

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**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	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					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	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
NaturalGas Unmitigated	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



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**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

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	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	0.0115	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	5.0000e-005
Unmitigated	0.0115	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	5.0000e-005

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	4.0300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	7.4900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	5.0000e-005
<b>Total</b>	<b>0.0115</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>5.0000e-005</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>5.0000e-005</b>



Goleta Energy Storage Project - Santa Barbara County APCD Air District, 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	4.0300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	7.4900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	5.0000e-005
<b>Total</b>	<b>0.0115</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>5.0000e-005</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>5.0000e-005</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0115	0.0000	0.0000	0.0116
Unmitigated	0.0115	0.0000	0.0000	0.0116

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0.010346	0.0115	0.0000	0.0000	0.0116
<b>Total</b>		<b>0.0115</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0116</b>

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Annual

**7.2 Water by Land Use**

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0.010346	0.0115	0.0000	0.0000	0.0116
<b>Total</b>		<b>0.0115</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0116</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**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

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Annual

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Goleta Energy Storage Project - Santa Barbara County APCD Air District, Annual

**10.0 Stationary Equipment**

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**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
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Goleta Energy Storage Project - Santa Barbara County APCD Air District, Winter

**Goleta Energy Storage Project**  
**Santa Barbara County APCD Air District, Winter**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	2.66	Acre	2.66	115,869.60	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.9	<b>Precipitation Freq (Days)</b>	37
<b>Climate Zone</b>	8			<b>Operational Year</b>	2021
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	702.44	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Winter

Project Characteristics - Construction to start after permitting process is complete

Land Use - Size of project site.

Construction Phase - 4 months of construction according to applicant. Phase lengths based on Ventura Energy Storage project

Off-road Equipment - Info provided by Tesla.

Off-road Equipment - Based on Ventura Energy Storage project

Off-road Equipment - Based on Ventura Energy Storage project

Off-road Equipment - Based on Ventura Energy Storage project

Off-road Equipment - Based on Ventura Energy Storage project

Off-road Equipment - Based on Ventura Energy Storage project

Off-road Equipment - Based on Ventura Energy Storage project

Off-road Equipment - Based on Ventura Energy Storage project

Off-road Equipment - Based on Ventura Energy Storage project

Trips and VMT - Assuming up to 2 Megapacks per day plus 1 extra daily roundtrip for other components. Reduced substation vendor trips due to site size.

Demolition - No demolition using heavy equipment required.

Grading - Based on applicant-provided information.

Vehicle Trips - Twice monthly O&M visit during first year.

Energy Use - No new energy sources.

Water And Wastewater - Assumes 25,000 gallons for landscaping and 2,520 gallons for O&M.

Solid Waste - No operational solid waste generation.

Construction Off-road Equipment Mitigation -

Operational Off-Road Equipment - -

Fleet Mix - O&M staff would use LDA and LDT1 only.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	3.00	6.00
tblConstructionPhase	NumDays	6.00	12.00
tblConstructionPhase	NumDays	220.00	66.00

## Goleta Energy Storage Project - Santa Barbara County APCD Air District, Winter

tblConstructionPhase	NumDays	220.00	66.00
tblConstructionPhase	NumDays	220.00	5.00
tblConstructionPhase	NumDays	220.00	1.00
tblConstructionPhase	NumDays	10.00	4.00
tblConstructionPhase	NumDays	220.00	66.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.56	0.50
tblFleetMix	LDT1	0.03	0.50
tblFleetMix	LDT2	0.20	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.8120e-003	0.00
tblFleetMix	MCY	7.0530e-003	0.00
tblFleetMix	MDV	0.13	0.00
tblFleetMix	MH	1.0770e-003	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	2.7730e-003	0.00
tblFleetMix	SBUS	2.6770e-003	0.00
tblFleetMix	UBUS	2.3770e-003	0.00
tblGrading	MaterialImported	0.00	600.00
tblOffRoadEquipment	HorsePower	247.00	80.00
tblOffRoadEquipment	HorsePower	97.00	70.00
tblOffRoadEquipment	HorsePower	247.00	80.00
tblOffRoadEquipment	HorsePower	247.00	80.00
tblOffRoadEquipment	HorsePower	247.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00



Goleta Energy Storage Project - Santa Barbara County APCD Air District, Winter

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	6.00	7.00
tblOffRoadEquipment	UsageHours	6.00	7.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	VendorTripNumber	19.00	6.00
tblTripsAndVMT	VendorTripNumber	19.00	6.00
tblTripsAndVMT	VendorTripNumber	19.00	0.00
tblTripsAndVMT	VendorTripNumber	19.00	0.00
tblTripsAndVMT	VendorTripNumber	19.00	6.00
tblTripsAndVMT	WorkerTripNumber	49.00	0.00
tblTripsAndVMT	WorkerTripNumber	49.00	0.00
tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	WD_TR	0.00	0.08
tblWater	OutdoorWaterUseRate	0.00	10,346.00

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Winter

**2.0 Emissions Summary**

**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					
2020	5.4724	49.6960	47.7357	0.0853	6.6344	2.6024	7.1494	3.3893	2.4787	3.8630	0.0000	8,214.854 3	8,214.854 3	1.6337	0.0000	8,255.696 3
2040	1.7959	9.4006	27.6717	0.0544	0.3450	0.1286	0.4736	0.0923	0.1285	0.2208	0.0000	5,167.006 3	5,167.006 3	0.1664	0.0000	5,171.166 9
<b>Maximum</b>	<b>5.4724</b>	<b>49.6960</b>	<b>47.7357</b>	<b>0.0853</b>	<b>6.6344</b>	<b>2.6024</b>	<b>7.1494</b>	<b>3.3893</b>	<b>2.4787</b>	<b>3.8630</b>	<b>0.0000</b>	<b>8,214.854 3</b>	<b>8,214.854 3</b>	<b>1.6337</b>	<b>0.0000</b>	<b>8,255.696 3</b>

**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					
2020	5.4724	49.6960	47.7357	0.0853	6.6344	2.6024	7.1494	3.3893	2.4787	3.8630	0.0000	8,214.854 3	8,214.854 3	1.6337	0.0000	8,255.696 3
2040	1.7959	9.4006	27.6717	0.0544	0.3450	0.1286	0.4736	0.0923	0.1285	0.2208	0.0000	5,167.006 3	5,167.006 3	0.1664	0.0000	5,171.166 8
<b>Maximum</b>	<b>5.4724</b>	<b>49.6960</b>	<b>47.7357</b>	<b>0.0853</b>	<b>6.6344</b>	<b>2.6024</b>	<b>7.1494</b>	<b>3.3893</b>	<b>2.4787</b>	<b>3.8630</b>	<b>0.0000</b>	<b>8,214.854 3</b>	<b>8,214.854 3</b>	<b>1.6337</b>	<b>0.0000</b>	<b>8,255.696 3</b>



Goleta Energy Storage Project - Santa Barbara County APCD Air District, 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	0.0631	0.0000	2.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		5.8000e-004	5.8000e-004	0.0000		6.2000e-004
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
Mobile	3.0000e-004	3.4000e-004	3.5500e-003	1.0000e-005	8.9000e-004	1.0000e-005	9.0000e-004	2.4000e-004	1.0000e-005	2.4000e-004		0.7223	0.7223	3.0000e-005		0.7229
<b>Total</b>	<b>0.0634</b>	<b>3.4000e-004</b>	<b>3.8200e-003</b>	<b>1.0000e-005</b>	<b>8.9000e-004</b>	<b>1.0000e-005</b>	<b>9.0000e-004</b>	<b>2.4000e-004</b>	<b>1.0000e-005</b>	<b>2.4000e-004</b>		<b>0.7228</b>	<b>0.7228</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.7235</b>

**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	0.0631	0.0000	2.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		5.8000e-004	5.8000e-004	0.0000		6.2000e-004
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
Mobile	3.0000e-004	3.4000e-004	3.5500e-003	1.0000e-005	8.9000e-004	1.0000e-005	9.0000e-004	2.4000e-004	1.0000e-005	2.4000e-004		0.7223	0.7223	3.0000e-005		0.7229
<b>Total</b>	<b>0.0634</b>	<b>3.4000e-004</b>	<b>3.8200e-003</b>	<b>1.0000e-005</b>	<b>8.9000e-004</b>	<b>1.0000e-005</b>	<b>9.0000e-004</b>	<b>2.4000e-004</b>	<b>1.0000e-005</b>	<b>2.4000e-004</b>		<b>0.7228</b>	<b>0.7228</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.7235</b>

Goleta Energy Storage Project - Santa Barbara County APCD Air District, 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
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	Site Preparation	Site Preparation	6/1/2020	6/8/2020	5	6	
2	Grading	Grading	6/9/2020	6/24/2020	5	12	
3	Sub Installation	Building Construction	6/25/2020	9/24/2020	5	66	
4	BESS Installation	Building Construction	6/25/2020	9/24/2020	5	66	
5	Sub Excavator	Building Construction	7/1/2020	7/7/2020	5	5	
6	Sub Crane	Building Construction	7/13/2020	7/13/2020	5	1	
7	Surfacing/Paving	Paving	9/25/2020	9/30/2020	5	4	
8	Decommissioning	Building Construction	1/1/2040	4/2/2040	5	66	

Acres of Grading (Site Preparation Phase): 3

Acres of Grading (Grading Phase): 6

Acres of Paving: 2.66

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
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	8.00	80	0.40

## Goleta Energy Storage Project - Santa Barbara County APCD Air District, Winter

Site Preparation	Skid Steer Loaders	1	8.00	65	0.37
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Plate Compactors	1	8.00	8	0.43
Grading	Rollers	1	8.00	80	0.38
Grading	Rubber Tired Dozers	1	6.00	80	0.40
Grading	Skid Steer Loaders	1	8.00	65	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Sub Installation	Aerial Lifts	1	6.00	63	0.31
Sub Installation	Air Compressors	1	8.00	78	0.48
Sub Installation	Bore/Drill Rigs	1	4.00	221	0.50
Sub Installation	Excavators	1	4.00	158	0.38
Sub Installation	Forklifts	1	6.00	89	0.20
Sub Installation	Generator Sets	1	8.00	84	0.74
Sub Installation	Other Construction Equipment	1	4.00	172	0.42
Sub Installation	Other Material Handling Equipment	1	4.00	168	0.40
Sub Installation	Plate Compactors	1	8.00	8	0.43
Sub Installation	Rubber Tired Dozers	1	4.00	80	0.40
Sub Installation	Skid Steer Loaders	1	4.00	65	0.37
Sub Installation	Tractors/Loaders/Backhoes	1	4.00	70	0.37
Sub Installation	Trenchers	1	4.00	78	0.50
BESS Installation	Air Compressors	2	8.00	78	0.48
BESS Installation	Cranes	1	7.00	231	0.29
BESS Installation	Excavators	1	8.00	158	0.38
BESS Installation	Forklifts	1	8.00	89	0.20
BESS Installation	Generator Sets	2	8.00	84	0.74
BESS Installation	Plate Compactors	1	8.00	8	0.43

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Winter

BESS Installation	Rollers	1	8.00	80	0.38
BESS Installation	Skid Steer Loaders	1	8.00	65	0.37
BESS Installation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Sub Excavator	Excavators	1	8.00	158	0.38
Sub Crane	Cranes	1	8.00	231	0.29
Surfacing/Paving	Graders	1	8.00	187	0.41
Surfacing/Paving	Plate Compactors	1	4.00	8	0.43
Surfacing/Paving	Rollers	1	4.00	80	0.38
Surfacing/Paving	Rubber Tired Dozers	1	4.00	80	0.40
Surfacing/Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Decommissioning	Air Compressors	2	8.00	78	0.48
Decommissioning	Cranes	1	7.00	231	0.29
Decommissioning	Excavators	2	8.00	158	0.38
Decommissioning	Forklifts	1	8.00	89	0.20
Decommissioning	Generator Sets	2	8.00	84	0.74
Decommissioning	Plate Compactors	1	8.00	8	0.43
Decommissioning	Rollers	1	8.00	80	0.38
Decommissioning	Skid Steer Loaders	1	8.00	65	0.37
Decommissioning	Tractors/Loaders/Backhoes	1	7.00	97	0.37

**Trips and VMT**

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Winter

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
Site Preparation	5	13.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	7	18.00	0.00	75.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Sub Installation	13	49.00	6.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
BESS Installation	11	49.00	6.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Sub Excavator	1	0.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Sub Crane	1	0.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Surfacing/Paving	5	13.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Decommissioning	12	49.00	6.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

**3.2 Site Preparation - 2020**

**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					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	0.9747	11.5982	7.7639	0.0149		0.5145	0.5145		0.4733	0.4733		1,444.4244	1,444.4244	0.4672		1,456.1033
<b>Total</b>	<b>0.9747</b>	<b>11.5982</b>	<b>7.7639</b>	<b>0.0149</b>	<b>6.5523</b>	<b>0.5145</b>	<b>7.0668</b>	<b>3.3675</b>	<b>0.4733</b>	<b>3.8408</b>		<b>1,444.4244</b>	<b>1,444.4244</b>	<b>0.4672</b>		<b>1,456.1033</b>



Goleta Energy Storage Project - Santa Barbara County APCD Air District, Winter

**3.2 Site Preparation - 2020**

**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
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	0.0458	0.0360	0.3164	7.3000e-004	0.0821	5.2000e-004	0.0826	0.0218	4.8000e-004	0.0223		72.1868	72.1868	2.4800e-003		72.2489
<b>Total</b>	<b>0.0458</b>	<b>0.0360</b>	<b>0.3164</b>	<b>7.3000e-004</b>	<b>0.0821</b>	<b>5.2000e-004</b>	<b>0.0826</b>	<b>0.0218</b>	<b>4.8000e-004</b>	<b>0.0223</b>		<b>72.1868</b>	<b>72.1868</b>	<b>2.4800e-003</b>		<b>72.2489</b>

**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					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	0.9747	11.5982	7.7639	0.0149		0.5145	0.5145		0.4733	0.4733	0.0000	1,444.4244	1,444.4244	0.4672		1,456.1033
<b>Total</b>	<b>0.9747</b>	<b>11.5982</b>	<b>7.7639</b>	<b>0.0149</b>	<b>6.5523</b>	<b>0.5145</b>	<b>7.0668</b>	<b>3.3675</b>	<b>0.4733</b>	<b>3.8408</b>	<b>0.0000</b>	<b>1,444.4244</b>	<b>1,444.4244</b>	<b>0.4672</b>		<b>1,456.1033</b>

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Winter

**3.2 Site Preparation - 2020**

**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
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	0.0458	0.0360	0.3164	7.3000e-004	0.0821	5.2000e-004	0.0826	0.0218	4.8000e-004	0.0223		72.1868	72.1868	2.4800e-003		72.2489
<b>Total</b>	<b>0.0458</b>	<b>0.0360</b>	<b>0.3164</b>	<b>7.3000e-004</b>	<b>0.0821</b>	<b>5.2000e-004</b>	<b>0.0826</b>	<b>0.0218</b>	<b>4.8000e-004</b>	<b>0.0223</b>		<b>72.1868</b>	<b>72.1868</b>	<b>2.4800e-003</b>		<b>72.2489</b>

**3.3 Grading - 2020**

**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					5.0549	0.0000	5.0549	2.5412	0.0000	2.5412			0.0000			0.0000
Off-Road	1.2230	13.9307	9.8678	0.0180		0.6569	0.6569		0.6051	0.6051		1,732.9702	1,732.9702	0.5529		1,746.7929
<b>Total</b>	<b>1.2230</b>	<b>13.9307</b>	<b>9.8678</b>	<b>0.0180</b>	<b>5.0549</b>	<b>0.6569</b>	<b>5.7118</b>	<b>2.5412</b>	<b>0.6051</b>	<b>3.1463</b>		<b>1,732.9702</b>	<b>1,732.9702</b>	<b>0.5529</b>		<b>1,746.7929</b>

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Winter

**3.3 Grading - 2020**

**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	0.0521	1.8827	0.5704	4.8000e-003	0.1086	7.8600e-003	0.1164	0.0297	7.5200e-003	0.0372		534.9984	534.9984	0.0500		536.2494
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	0.0635	0.0499	0.4381	1.0000e-003	0.1137	7.2000e-004	0.1144	0.0302	6.7000e-004	0.0308		99.9509	99.9509	3.4400e-003		100.0369
<b>Total</b>	<b>0.1156</b>	<b>1.9326</b>	<b>1.0085</b>	<b>5.8000e-003</b>	<b>0.2223</b>	<b>8.5800e-003</b>	<b>0.2308</b>	<b>0.0599</b>	<b>8.1900e-003</b>	<b>0.0681</b>		<b>634.9493</b>	<b>634.9493</b>	<b>0.0535</b>		<b>636.2863</b>

**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					5.0549	0.0000	5.0549	2.5412	0.0000	2.5412			0.0000			0.0000
Off-Road	1.2230	13.9307	9.8678	0.0180		0.6569	0.6569		0.6051	0.6051	0.0000	1,732.9702	1,732.9702	0.5529		1,746.7929
<b>Total</b>	<b>1.2230</b>	<b>13.9307</b>	<b>9.8678</b>	<b>0.0180</b>	<b>5.0549</b>	<b>0.6569</b>	<b>5.7118</b>	<b>2.5412</b>	<b>0.6051</b>	<b>3.1463</b>	<b>0.0000</b>	<b>1,732.9702</b>	<b>1,732.9702</b>	<b>0.5529</b>		<b>1,746.7929</b>

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Winter

**3.3 Grading - 2020**

**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	0.0521	1.8827	0.5704	4.8000e-003	0.1086	7.8600e-003	0.1164	0.0297	7.5200e-003	0.0372		534.9984	534.9984	0.0500		536.2494
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	0.0635	0.0499	0.4381	1.0000e-003	0.1137	7.2000e-004	0.1144	0.0302	6.7000e-004	0.0308		99.9509	99.9509	3.4400e-003		100.0369
<b>Total</b>	<b>0.1156</b>	<b>1.9326</b>	<b>1.0085</b>	<b>5.8000e-003</b>	<b>0.2223</b>	<b>8.5800e-003</b>	<b>0.2308</b>	<b>0.0599</b>	<b>8.1900e-003</b>	<b>0.0681</b>		<b>634.9493</b>	<b>634.9493</b>	<b>0.0535</b>		<b>636.2863</b>

**3.4 Sub Installation - 2020**

**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	1.8828	17.6094	17.5139	0.0305		0.9677	0.9677		0.9186	0.9186		2,921.9842	2,921.9842	0.6787		2,938.9523
<b>Total</b>	<b>1.8828</b>	<b>17.6094</b>	<b>17.5139</b>	<b>0.0305</b>		<b>0.9677</b>	<b>0.9677</b>		<b>0.9186</b>	<b>0.9186</b>		<b>2,921.9842</b>	<b>2,921.9842</b>	<b>0.6787</b>		<b>2,938.9523</b>

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Winter

**3.4 Sub Installation - 2020**

**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
Vendor	0.0248	0.6558	0.2431	1.4000e-003	0.0355	3.6400e-003	0.0392	0.0102	3.4800e-003	0.0137		152.1644	152.1644	0.0119		152.4629
Worker	0.1728	0.1358	1.1926	2.7400e-003	0.3095	1.9700e-003	0.3114	0.0821	1.8200e-003	0.0839		272.0886	272.0886	9.3600e-003		272.3226
<b>Total</b>	<b>0.1976</b>	<b>0.7916</b>	<b>1.4357</b>	<b>4.1400e-003</b>	<b>0.3450</b>	<b>5.6100e-003</b>	<b>0.3506</b>	<b>0.0923</b>	<b>5.3000e-003</b>	<b>0.0976</b>		<b>424.2530</b>	<b>424.2530</b>	<b>0.0213</b>		<b>424.7855</b>

**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	1.8828	17.6094	17.5139	0.0305		0.9677	0.9677		0.9186	0.9186	0.0000	2,921.984 2	2,921.984 2	0.6787		2,938.952 3
<b>Total</b>	<b>1.8828</b>	<b>17.6094</b>	<b>17.5139</b>	<b>0.0305</b>		<b>0.9677</b>	<b>0.9677</b>		<b>0.9186</b>	<b>0.9186</b>	<b>0.0000</b>	<b>2,921.984 2</b>	<b>2,921.984 2</b>	<b>0.6787</b>		<b>2,938.952 3</b>

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Winter

**3.4 Sub Installation - 2020**

**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
Vendor	0.0248	0.6558	0.2431	1.4000e-003	0.0355	3.6400e-003	0.0392	0.0102	3.4800e-003	0.0137		152.1644	152.1644	0.0119		152.4629
Worker	0.1728	0.1358	1.1926	2.7400e-003	0.3095	1.9700e-003	0.3114	0.0821	1.8200e-003	0.0839		272.0886	272.0886	9.3600e-003		272.3226
<b>Total</b>	<b>0.1976</b>	<b>0.7916</b>	<b>1.4357</b>	<b>4.1400e-003</b>	<b>0.3450</b>	<b>5.6100e-003</b>	<b>0.3506</b>	<b>0.0923</b>	<b>5.3000e-003</b>	<b>0.0976</b>		<b>424.2530</b>	<b>424.2530</b>	<b>0.0213</b>		<b>424.7855</b>

**3.5 BESS Installation - 2020**

**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	2.7411	25.1120	24.0825	0.0407		1.4012	1.4012		1.3450	1.3450		3,885.5744	3,885.5744	0.7316		3,903.8653
<b>Total</b>	<b>2.7411</b>	<b>25.1120</b>	<b>24.0825</b>	<b>0.0407</b>		<b>1.4012</b>	<b>1.4012</b>		<b>1.3450</b>	<b>1.3450</b>		<b>3,885.5744</b>	<b>3,885.5744</b>	<b>0.7316</b>		<b>3,903.8653</b>

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Winter

**3.5 BESS Installation - 2020**

**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
Vendor	0.0248	0.6558	0.2431	1.4000e-003	0.0355	3.6400e-003	0.0392	0.0102	3.4800e-003	0.0137		152.1644	152.1644	0.0119		152.4629
Worker	0.1728	0.1358	1.1926	2.7400e-003	0.3095	1.9700e-003	0.3114	0.0821	1.8200e-003	0.0839		272.0886	272.0886	9.3600e-003		272.3226
<b>Total</b>	<b>0.1976</b>	<b>0.7916</b>	<b>1.4357</b>	<b>4.1400e-003</b>	<b>0.3450</b>	<b>5.6100e-003</b>	<b>0.3506</b>	<b>0.0923</b>	<b>5.3000e-003</b>	<b>0.0976</b>		<b>424.2530</b>	<b>424.2530</b>	<b>0.0213</b>		<b>424.7855</b>

**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	2.7411	25.1120	24.0825	0.0407		1.4012	1.4012		1.3450	1.3450	0.0000	3,885.5744	3,885.5744	0.7316		3,903.8653
<b>Total</b>	<b>2.7411</b>	<b>25.1120</b>	<b>24.0825</b>	<b>0.0407</b>		<b>1.4012</b>	<b>1.4012</b>		<b>1.3450</b>	<b>1.3450</b>	<b>0.0000</b>	<b>3,885.5744</b>	<b>3,885.5744</b>	<b>0.7316</b>		<b>3,903.8653</b>

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**3.5 BESS Installation - 2020**

**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
Vendor	0.0248	0.6558	0.2431	1.4000e-003	0.0355	3.6400e-003	0.0392	0.0102	3.4800e-003	0.0137		152.1644	152.1644	0.0119		152.4629
Worker	0.1728	0.1358	1.1926	2.7400e-003	0.3095	1.9700e-003	0.3114	0.0821	1.8200e-003	0.0839		272.0886	272.0886	9.3600e-003		272.3226
<b>Total</b>	<b>0.1976</b>	<b>0.7916</b>	<b>1.4357</b>	<b>4.1400e-003</b>	<b>0.3450</b>	<b>5.6100e-003</b>	<b>0.3506</b>	<b>0.0923</b>	<b>5.3000e-003</b>	<b>0.0976</b>		<b>424.2530</b>	<b>424.2530</b>	<b>0.0213</b>		<b>424.7855</b>

**3.6 Sub Excavator - 2020**

**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	0.2450	2.4126	3.2678	5.1700e-003		0.1169	0.1169		0.1075	0.1075		500.1184	500.1184	0.1618		504.1621
<b>Total</b>	<b>0.2450</b>	<b>2.4126</b>	<b>3.2678</b>	<b>5.1700e-003</b>		<b>0.1169</b>	<b>0.1169</b>		<b>0.1075</b>	<b>0.1075</b>		<b>500.1184</b>	<b>500.1184</b>	<b>0.1618</b>		<b>504.1621</b>



Goleta Energy Storage Project - Santa Barbara County APCD Air District, Winter

**3.6 Sub Excavator - 2020**

**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
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	0.0000	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
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>

**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	0.2450	2.4126	3.2678	5.1700e-003		0.1169	0.1169		0.1075	0.1075	0.0000	500.1184	500.1184	0.1618		504.1621
<b>Total</b>	<b>0.2450</b>	<b>2.4126</b>	<b>3.2678</b>	<b>5.1700e-003</b>		<b>0.1169</b>	<b>0.1169</b>		<b>0.1075</b>	<b>0.1075</b>	<b>0.0000</b>	<b>500.1184</b>	<b>500.1184</b>	<b>0.1618</b>		<b>504.1621</b>

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Winter

**3.6 Sub Excavator - 2020**

**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
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	0.0000	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
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>

**3.7 Sub Crane - 2020**

**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	0.4534	5.3915	2.1154	5.7700e-003		0.2223	0.2223		0.2045	0.2045		558.7896	558.7896	0.1807		563.3077
<b>Total</b>	<b>0.4534</b>	<b>5.3915</b>	<b>2.1154</b>	<b>5.7700e-003</b>		<b>0.2223</b>	<b>0.2223</b>		<b>0.2045</b>	<b>0.2045</b>		<b>558.7896</b>	<b>558.7896</b>	<b>0.1807</b>		<b>563.3077</b>

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Winter

**3.7 Sub Crane - 2020**

**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
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	0.0000	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
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>

**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	0.4534	5.3915	2.1154	5.7700e-003		0.2223	0.2223		0.2045	0.2045	0.0000	558.7896	558.7896	0.1807		563.3077
<b>Total</b>	<b>0.4534</b>	<b>5.3915</b>	<b>2.1154</b>	<b>5.7700e-003</b>		<b>0.2223</b>	<b>0.2223</b>		<b>0.2045</b>	<b>0.2045</b>	<b>0.0000</b>	<b>558.7896</b>	<b>558.7896</b>	<b>0.1807</b>		<b>563.3077</b>

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Winter

**3.7 Sub Crane - 2020**

**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
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	0.0000	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
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>

**3.8 Surfacing/Paving - 2020**

**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	0.8095	9.5969	5.1461	0.0113		0.4066	0.4066		0.3744	0.3744		1,087.760 1	1,087.760 1	0.3480		1,096.460 5
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.8095</b>	<b>9.5969</b>	<b>5.1461</b>	<b>0.0113</b>		<b>0.4066</b>	<b>0.4066</b>		<b>0.3744</b>	<b>0.3744</b>		<b>1,087.760</b> <b>1</b>	<b>1,087.760</b> <b>1</b>	<b>0.3480</b>		<b>1,096.460</b> <b>5</b>

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Winter

**3.8 Surfacing/Paving - 2020**

**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
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	0.0458	0.0360	0.3164	7.3000e-004	0.0821	5.2000e-004	0.0826	0.0218	4.8000e-004	0.0223		72.1868	72.1868	2.4800e-003		72.2489
<b>Total</b>	<b>0.0458</b>	<b>0.0360</b>	<b>0.3164</b>	<b>7.3000e-004</b>	<b>0.0821</b>	<b>5.2000e-004</b>	<b>0.0826</b>	<b>0.0218</b>	<b>4.8000e-004</b>	<b>0.0223</b>		<b>72.1868</b>	<b>72.1868</b>	<b>2.4800e-003</b>		<b>72.2489</b>

**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	0.8095	9.5969	5.1461	0.0113		0.4066	0.4066		0.3744	0.3744	0.0000	1,087.7601	1,087.7601	0.3480		1,096.4605
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.8095</b>	<b>9.5969</b>	<b>5.1461</b>	<b>0.0113</b>		<b>0.4066</b>	<b>0.4066</b>		<b>0.3744</b>	<b>0.3744</b>	<b>0.0000</b>	<b>1,087.7601</b>	<b>1,087.7601</b>	<b>0.3480</b>		<b>1,096.4605</b>

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Winter

**3.8 Surfacing/Paving - 2020**

**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
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	0.0458	0.0360	0.3164	7.3000e-004	0.0821	5.2000e-004	0.0826	0.0218	4.8000e-004	0.0223		72.1868	72.1868	2.4800e-003		72.2489
<b>Total</b>	<b>0.0458</b>	<b>0.0360</b>	<b>0.3164</b>	<b>7.3000e-004</b>	<b>0.0821</b>	<b>5.2000e-004</b>	<b>0.0826</b>	<b>0.0218</b>	<b>4.8000e-004</b>	<b>0.0223</b>		<b>72.1868</b>	<b>72.1868</b>	<b>2.4800e-003</b>		<b>72.2489</b>

**3.9 Decommissioning - 2040**

**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	1.7356	8.9887	27.2354	0.0514		0.1275	0.1275		0.1275	0.1275		4,861.0933	4,861.0933	0.1511		4,864.8712
<b>Total</b>	<b>1.7356</b>	<b>8.9887</b>	<b>27.2354</b>	<b>0.0514</b>		<b>0.1275</b>	<b>0.1275</b>		<b>0.1275</b>	<b>0.1275</b>		<b>4,861.0933</b>	<b>4,861.0933</b>	<b>0.1511</b>		<b>4,864.8712</b>

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Winter

**3.9 Decommissioning - 2040**

**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
Vendor	9.6600e-003	0.3864	0.1272	1.2500e-003	0.0355	3.7000e-004	0.0359	0.0102	3.5000e-004	0.0106		140.1992	140.1992	0.0139		140.5465
Worker	0.0506	0.0255	0.3091	1.6600e-003	0.3095	7.0000e-004	0.3102	0.0821	6.5000e-004	0.0827		165.7137	165.7137	1.4200e-003		165.7492
<b>Total</b>	<b>0.0602</b>	<b>0.4119</b>	<b>0.4364</b>	<b>2.9100e-003</b>	<b>0.3450</b>	<b>1.0700e-003</b>	<b>0.3461</b>	<b>0.0923</b>	<b>1.0000e-003</b>	<b>0.0933</b>		<b>305.9129</b>	<b>305.9129</b>	<b>0.0153</b>		<b>306.2957</b>

**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	1.7356	8.9887	27.2354	0.0514		0.1275	0.1275		0.1275	0.1275	0.0000	4,861.0933	4,861.0933	0.1511		4,864.8712
<b>Total</b>	<b>1.7356</b>	<b>8.9887</b>	<b>27.2354</b>	<b>0.0514</b>		<b>0.1275</b>	<b>0.1275</b>		<b>0.1275</b>	<b>0.1275</b>	<b>0.0000</b>	<b>4,861.0933</b>	<b>4,861.0933</b>	<b>0.1511</b>		<b>4,864.8712</b>

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Winter

**3.9 Decommissioning - 2040**

**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
Vendor	9.6600e-003	0.3864	0.1272	1.2500e-003	0.0355	3.7000e-004	0.0359	0.0102	3.5000e-004	0.0106		140.1992	140.1992	0.0139		140.5465
Worker	0.0506	0.0255	0.3091	1.6600e-003	0.3095	7.0000e-004	0.3102	0.0821	6.5000e-004	0.0827		165.7137	165.7137	1.4200e-003		165.7492
<b>Total</b>	<b>0.0602</b>	<b>0.4119</b>	<b>0.4364</b>	<b>2.9100e-003</b>	<b>0.3450</b>	<b>1.0700e-003</b>	<b>0.3461</b>	<b>0.0923</b>	<b>1.0000e-003</b>	<b>0.0933</b>		<b>305.9129</b>	<b>305.9129</b>	<b>0.0153</b>		<b>306.2957</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**



Goleta Energy Storage Project - Santa Barbara County APCD Air District, 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	3.0000e-004	3.4000e-004	3.5500e-003	1.0000e-005	8.9000e-004	1.0000e-005	9.0000e-004	2.4000e-004	1.0000e-005	2.4000e-004		0.7223	0.7223	3.0000e-005		0.7229
Unmitigated	3.0000e-004	3.4000e-004	3.5500e-003	1.0000e-005	8.9000e-004	1.0000e-005	9.0000e-004	2.4000e-004	1.0000e-005	2.4000e-004		0.7223	0.7223	3.0000e-005		0.7229

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.21	0.00	0.00	304	304
Total	0.21	0.00	0.00	304	304

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
Other Non-Asphalt Surfaces	6.60	5.50	6.40	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.500000	0.500000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

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**5.1 Mitigation Measures Energy**

	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					
NaturalGas Mitigated	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
NaturalGas Unmitigated	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

**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					
Other Non-Asphalt Surfaces	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
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas 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					
Other Non-Asphalt Surfaces	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
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

	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	0.0631	0.0000	2.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		5.8000e-004	5.8000e-004	0.0000		6.2000e-004
Unmitigated	0.0631	0.0000	2.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		5.8000e-004	5.8000e-004	0.0000		6.2000e-004

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**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	0.0221					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0410					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.0000e-005	0.0000	2.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		5.8000e-004	5.8000e-004	0.0000		6.2000e-004
<b>Total</b>	<b>0.0631</b>	<b>0.0000</b>	<b>2.7000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>5.8000e-004</b>	<b>5.8000e-004</b>	<b>0.0000</b>		<b>6.2000e-004</b>

**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	0.0221					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0410					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.0000e-005	0.0000	2.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		5.8000e-004	5.8000e-004	0.0000		6.2000e-004
<b>Total</b>	<b>0.0631</b>	<b>0.0000</b>	<b>2.7000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>5.8000e-004</b>	<b>5.8000e-004</b>	<b>0.0000</b>		<b>6.2000e-004</b>

**7.0 Water Detail**

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Winter

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**7.1 Mitigation Measures Water****8.0 Waste Detail**

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**8.1 Mitigation Measures Waste****9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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**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
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Goleta Energy Storage Project - Santa Barbara County APCD Air District, Summer

**Goleta Energy Storage Project**  
**Santa Barbara County APCD Air District, Summer**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	2.66	Acre	2.66	115,869.60	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.9	<b>Precipitation Freq (Days)</b>	37
<b>Climate Zone</b>	8			<b>Operational Year</b>	2021
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	702.44	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Summer

Project Characteristics - Construction to start after permitting process is complete

Land Use - Size of project site.

Construction Phase - 4 months of construction according to applicant. Phase lengths based on Ventura Energy Storage project

Off-road Equipment - Info provided by Tesla.

Off-road Equipment - Based on Ventura Energy Storage project

Off-road Equipment - Based on Ventura Energy Storage project

Off-road Equipment - Based on Ventura Energy Storage project

Off-road Equipment - Based on Ventura Energy Storage project

Off-road Equipment - Based on Ventura Energy Storage project

Off-road Equipment - Based on Ventura Energy Storage project

Off-road Equipment - Based on Ventura Energy Storage project

Off-road Equipment - Based on Ventura Energy Storage project

Trips and VMT - Assuming up to 2 Megapacks per day plus 1 extra daily roundtrip for other components. Reduced substation vendor trips due to site size.

Demolition - No demolition using heavy equipment required.

Grading - Based on applicant-provided information.

Vehicle Trips - Twice monthly O&M visit during first year.

Energy Use - No new energy sources.

Water And Wastewater - Assumes 25,000 gallons for landscaping and 2,520 gallons for O&M.

Solid Waste - No operational solid waste generation.

Construction Off-road Equipment Mitigation -

Operational Off-Road Equipment - -

Fleet Mix - O&M staff would use LDA and LDT1 only.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	3.00	6.00
tblConstructionPhase	NumDays	6.00	12.00
tblConstructionPhase	NumDays	220.00	66.00

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Summer

tblConstructionPhase	NumDays	220.00	66.00
tblConstructionPhase	NumDays	220.00	5.00
tblConstructionPhase	NumDays	220.00	1.00
tblConstructionPhase	NumDays	10.00	4.00
tblConstructionPhase	NumDays	220.00	66.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.56	0.50
tblFleetMix	LDT1	0.03	0.50
tblFleetMix	LDT2	0.20	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.8120e-003	0.00
tblFleetMix	MCY	7.0530e-003	0.00
tblFleetMix	MDV	0.13	0.00
tblFleetMix	MH	1.0770e-003	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	2.7730e-003	0.00
tblFleetMix	SBUS	2.6770e-003	0.00
tblFleetMix	UBUS	2.3770e-003	0.00
tblGrading	MaterialImported	0.00	600.00
tblOffRoadEquipment	HorsePower	247.00	80.00
tblOffRoadEquipment	HorsePower	97.00	70.00
tblOffRoadEquipment	HorsePower	247.00	80.00
tblOffRoadEquipment	HorsePower	247.00	80.00
tblOffRoadEquipment	HorsePower	247.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00



Goleta Energy Storage Project - Santa Barbara County APCD Air District, Summer

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	6.00	7.00
tblOffRoadEquipment	UsageHours	6.00	7.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	VendorTripNumber	19.00	6.00
tblTripsAndVMT	VendorTripNumber	19.00	6.00
tblTripsAndVMT	VendorTripNumber	19.00	0.00
tblTripsAndVMT	VendorTripNumber	19.00	0.00
tblTripsAndVMT	VendorTripNumber	19.00	6.00
tblTripsAndVMT	WorkerTripNumber	49.00	0.00
tblTripsAndVMT	WorkerTripNumber	49.00	0.00
tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	WD_TR	0.00	0.08
tblWater	OutdoorWaterUseRate	0.00	10,346.00

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Summer

**2.0 Emissions Summary**

**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					
2020	5.4307	49.6653	47.6033	0.0855	6.6344	2.6022	7.1494	3.3893	2.4785	3.8630	0.0000	8,235.004 3	8,235.004 3	1.6325	0.0000	8,275.817 8
2040	1.7879	9.4003	27.6615	0.0544	0.3450	0.1286	0.4736	0.0923	0.1285	0.2208	0.0000	5,174.534 3	5,174.534 3	0.1659	0.0000	5,178.682 2
<b>Maximum</b>	<b>5.4307</b>	<b>49.6653</b>	<b>47.6033</b>	<b>0.0855</b>	<b>6.6344</b>	<b>2.6022</b>	<b>7.1494</b>	<b>3.3893</b>	<b>2.4785</b>	<b>3.8630</b>	<b>0.0000</b>	<b>8,235.004 3</b>	<b>8,235.004 3</b>	<b>1.6325</b>	<b>0.0000</b>	<b>8,275.817 8</b>

**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					
2020	5.4307	49.6653	47.6033	0.0855	6.6344	2.6022	7.1494	3.3893	2.4785	3.8630	0.0000	8,235.004 3	8,235.004 3	1.6325	0.0000	8,275.817 8
2040	1.7879	9.4003	27.6615	0.0544	0.3450	0.1286	0.4736	0.0923	0.1285	0.2208	0.0000	5,174.534 3	5,174.534 3	0.1659	0.0000	5,178.682 2
<b>Maximum</b>	<b>5.4307</b>	<b>49.6653</b>	<b>47.6033</b>	<b>0.0855</b>	<b>6.6344</b>	<b>2.6022</b>	<b>7.1494</b>	<b>3.3893</b>	<b>2.4785</b>	<b>3.8630</b>	<b>0.0000</b>	<b>8,235.004 3</b>	<b>8,235.004 3</b>	<b>1.6325</b>	<b>0.0000</b>	<b>8,275.817 8</b>



Goleta Energy Storage Project - Santa Barbara County APCD Air District, 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	0.0631	0.0000	2.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		5.8000e-004	5.8000e-004	0.0000		6.2000e-004
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
Mobile	3.1000e-004	3.0000e-004	3.3300e-003	1.0000e-005	8.9000e-004	1.0000e-005	9.0000e-004	2.4000e-004	1.0000e-005	2.4000e-004		0.7391	0.7391	3.0000e-005		0.7397
<b>Total</b>	<b>0.0635</b>	<b>3.0000e-004</b>	<b>3.6000e-003</b>	<b>1.0000e-005</b>	<b>8.9000e-004</b>	<b>1.0000e-005</b>	<b>9.0000e-004</b>	<b>2.4000e-004</b>	<b>1.0000e-005</b>	<b>2.4000e-004</b>		<b>0.7397</b>	<b>0.7397</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.7404</b>

**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	0.0631	0.0000	2.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		5.8000e-004	5.8000e-004	0.0000		6.2000e-004
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
Mobile	3.1000e-004	3.0000e-004	3.3300e-003	1.0000e-005	8.9000e-004	1.0000e-005	9.0000e-004	2.4000e-004	1.0000e-005	2.4000e-004		0.7391	0.7391	3.0000e-005		0.7397
<b>Total</b>	<b>0.0635</b>	<b>3.0000e-004</b>	<b>3.6000e-003</b>	<b>1.0000e-005</b>	<b>8.9000e-004</b>	<b>1.0000e-005</b>	<b>9.0000e-004</b>	<b>2.4000e-004</b>	<b>1.0000e-005</b>	<b>2.4000e-004</b>		<b>0.7397</b>	<b>0.7397</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.7404</b>

Goleta Energy Storage Project - Santa Barbara County APCD Air District, 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
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	Site Preparation	Site Preparation	6/1/2020	6/8/2020	5	6	
2	Grading	Grading	6/9/2020	6/24/2020	5	12	
3	Sub Installation	Building Construction	6/25/2020	9/24/2020	5	66	
4	BESS Installation	Building Construction	6/25/2020	9/24/2020	5	66	
5	Sub Excavator	Building Construction	7/1/2020	7/7/2020	5	5	
6	Sub Crane	Building Construction	7/13/2020	7/13/2020	5	1	
7	Surfacing/Paving	Paving	9/25/2020	9/30/2020	5	4	
8	Decommissioning	Building Construction	1/1/2040	4/2/2040	5	66	

Acres of Grading (Site Preparation Phase): 3

Acres of Grading (Grading Phase): 6

Acres of Paving: 2.66

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
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	8.00	80	0.40

## Goleta Energy Storage Project - Santa Barbara County APCD Air District, Summer

Site Preparation	Skid Steer Loaders	1	8.00	65	0.37
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Plate Compactors	1	8.00	8	0.43
Grading	Rollers	1	8.00	80	0.38
Grading	Rubber Tired Dozers	1	6.00	80	0.40
Grading	Skid Steer Loaders	1	8.00	65	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Sub Installation	Aerial Lifts	1	6.00	63	0.31
Sub Installation	Air Compressors	1	8.00	78	0.48
Sub Installation	Bore/Drill Rigs	1	4.00	221	0.50
Sub Installation	Excavators	1	4.00	158	0.38
Sub Installation	Forklifts	1	6.00	89	0.20
Sub Installation	Generator Sets	1	8.00	84	0.74
Sub Installation	Other Construction Equipment	1	4.00	172	0.42
Sub Installation	Other Material Handling Equipment	1	4.00	168	0.40
Sub Installation	Plate Compactors	1	8.00	8	0.43
Sub Installation	Rubber Tired Dozers	1	4.00	80	0.40
Sub Installation	Skid Steer Loaders	1	4.00	65	0.37
Sub Installation	Tractors/Loaders/Backhoes	1	4.00	70	0.37
Sub Installation	Trenchers	1	4.00	78	0.50
BESS Installation	Air Compressors	2	8.00	78	0.48
BESS Installation	Cranes	1	7.00	231	0.29
BESS Installation	Excavators	1	8.00	158	0.38
BESS Installation	Forklifts	1	8.00	89	0.20
BESS Installation	Generator Sets	2	8.00	84	0.74
BESS Installation	Plate Compactors	1	8.00	8	0.43

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Summer

BESS Installation	Rollers	1	8.00	80	0.38
BESS Installation	Skid Steer Loaders	1	8.00	65	0.37
BESS Installation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Sub Excavator	Excavators	1	8.00	158	0.38
Sub Crane	Cranes	1	8.00	231	0.29
Surfacing/Paving	Graders	1	8.00	187	0.41
Surfacing/Paving	Plate Compactors	1	4.00	8	0.43
Surfacing/Paving	Rollers	1	4.00	80	0.38
Surfacing/Paving	Rubber Tired Dozers	1	4.00	80	0.40
Surfacing/Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Decommissioning	Air Compressors	2	8.00	78	0.48
Decommissioning	Cranes	1	7.00	231	0.29
Decommissioning	Excavators	2	8.00	158	0.38
Decommissioning	Forklifts	1	8.00	89	0.20
Decommissioning	Generator Sets	2	8.00	84	0.74
Decommissioning	Plate Compactors	1	8.00	8	0.43
Decommissioning	Rollers	1	8.00	80	0.38
Decommissioning	Skid Steer Loaders	1	8.00	65	0.37
Decommissioning	Tractors/Loaders/Backhoes	1	7.00	97	0.37

**Trips and VMT**

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Summer

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
Site Preparation	5	13.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	7	18.00	0.00	75.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Sub Installation	13	49.00	6.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
BESS Installation	11	49.00	6.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Sub Excavator	1	0.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Sub Crane	1	0.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Surfacing/Paving	5	13.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Decommissioning	12	49.00	6.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

**3.2 Site Preparation - 2020**

**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					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	0.9747	11.5982	7.7639	0.0149		0.5145	0.5145		0.4733	0.4733		1,444.424 4	1,444.424 4	0.4672		1,456.103 3
<b>Total</b>	<b>0.9747</b>	<b>11.5982</b>	<b>7.7639</b>	<b>0.0149</b>	<b>6.5523</b>	<b>0.5145</b>	<b>7.0668</b>	<b>3.3675</b>	<b>0.4733</b>	<b>3.8408</b>		<b>1,444.424 4</b>	<b>1,444.424 4</b>	<b>0.4672</b>		<b>1,456.103 3</b>



Goleta Energy Storage Project - Santa Barbara County APCD Air District, Summer

**3.2 Site Preparation - 2020**

**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
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	0.0406	0.0315	0.3046	7.4000e-004	0.0821	5.2000e-004	0.0826	0.0218	4.8000e-004	0.0223		73.8958	73.8958	2.4700e-003		73.9576
<b>Total</b>	<b>0.0406</b>	<b>0.0315</b>	<b>0.3046</b>	<b>7.4000e-004</b>	<b>0.0821</b>	<b>5.2000e-004</b>	<b>0.0826</b>	<b>0.0218</b>	<b>4.8000e-004</b>	<b>0.0223</b>		<b>73.8958</b>	<b>73.8958</b>	<b>2.4700e-003</b>		<b>73.9576</b>

**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					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	0.9747	11.5982	7.7639	0.0149		0.5145	0.5145		0.4733	0.4733	0.0000	1,444.4244	1,444.4244	0.4672		1,456.1033
<b>Total</b>	<b>0.9747</b>	<b>11.5982</b>	<b>7.7639</b>	<b>0.0149</b>	<b>6.5523</b>	<b>0.5145</b>	<b>7.0668</b>	<b>3.3675</b>	<b>0.4733</b>	<b>3.8408</b>	<b>0.0000</b>	<b>1,444.4244</b>	<b>1,444.4244</b>	<b>0.4672</b>		<b>1,456.1033</b>

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Summer

**3.2 Site Preparation - 2020**

**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
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	0.0406	0.0315	0.3046	7.4000e-004	0.0821	5.2000e-004	0.0826	0.0218	4.8000e-004	0.0223		73.8958	73.8958	2.4700e-003		73.9576
<b>Total</b>	<b>0.0406</b>	<b>0.0315</b>	<b>0.3046</b>	<b>7.4000e-004</b>	<b>0.0821</b>	<b>5.2000e-004</b>	<b>0.0826</b>	<b>0.0218</b>	<b>4.8000e-004</b>	<b>0.0223</b>		<b>73.8958</b>	<b>73.8958</b>	<b>2.4700e-003</b>		<b>73.9576</b>

**3.3 Grading - 2020**

**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					5.0549	0.0000	5.0549	2.5412	0.0000	2.5412			0.0000			0.0000
Off-Road	1.2230	13.9307	9.8678	0.0180		0.6569	0.6569		0.6051	0.6051		1,732.9702	1,732.9702	0.5529		1,746.7929
<b>Total</b>	<b>1.2230</b>	<b>13.9307</b>	<b>9.8678</b>	<b>0.0180</b>	<b>5.0549</b>	<b>0.6569</b>	<b>5.7118</b>	<b>2.5412</b>	<b>0.6051</b>	<b>3.1463</b>		<b>1,732.9702</b>	<b>1,732.9702</b>	<b>0.5529</b>		<b>1,746.7929</b>

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Summer

**3.3 Grading - 2020**

**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	0.0508	1.8708	0.5461	4.8600e-003	0.1086	7.6700e-003	0.1163	0.0297	7.3400e-003	0.0371		542.2943	542.2943	0.0491		543.5205
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	0.0563	0.0436	0.4218	1.0300e-003	0.1137	7.2000e-004	0.1144	0.0302	6.7000e-004	0.0308		102.3172	102.3172	3.4200e-003		102.4028
<b>Total</b>	<b>0.1071</b>	<b>1.9145</b>	<b>0.9679</b>	<b>5.8900e-003</b>	<b>0.2223</b>	<b>8.3900e-003</b>	<b>0.2307</b>	<b>0.0599</b>	<b>8.0100e-003</b>	<b>0.0679</b>		<b>644.6115</b>	<b>644.6115</b>	<b>0.0525</b>		<b>645.9233</b>

**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					5.0549	0.0000	5.0549	2.5412	0.0000	2.5412			0.0000			0.0000
Off-Road	1.2230	13.9307	9.8678	0.0180		0.6569	0.6569		0.6051	0.6051	0.0000	1,732.9702	1,732.9702	0.5529		1,746.7929
<b>Total</b>	<b>1.2230</b>	<b>13.9307</b>	<b>9.8678</b>	<b>0.0180</b>	<b>5.0549</b>	<b>0.6569</b>	<b>5.7118</b>	<b>2.5412</b>	<b>0.6051</b>	<b>3.1463</b>	<b>0.0000</b>	<b>1,732.9702</b>	<b>1,732.9702</b>	<b>0.5529</b>		<b>1,746.7929</b>

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Summer

**3.3 Grading - 2020**

**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	0.0508	1.8708	0.5461	4.8600e-003	0.1086	7.6700e-003	0.1163	0.0297	7.3400e-003	0.0371		542.2943	542.2943	0.0491		543.5205
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	0.0563	0.0436	0.4218	1.0300e-003	0.1137	7.2000e-004	0.1144	0.0302	6.7000e-004	0.0308		102.3172	102.3172	3.4200e-003		102.4028
<b>Total</b>	<b>0.1071</b>	<b>1.9145</b>	<b>0.9679</b>	<b>5.8900e-003</b>	<b>0.2223</b>	<b>8.3900e-003</b>	<b>0.2307</b>	<b>0.0599</b>	<b>8.0100e-003</b>	<b>0.0679</b>		<b>644.6115</b>	<b>644.6115</b>	<b>0.0525</b>		<b>645.9233</b>

**3.4 Sub Installation - 2020**

**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	1.8828	17.6094	17.5139	0.0305		0.9677	0.9677		0.9186	0.9186		2,921.9842	2,921.9842	0.6787		2,938.9523
<b>Total</b>	<b>1.8828</b>	<b>17.6094</b>	<b>17.5139</b>	<b>0.0305</b>		<b>0.9677</b>	<b>0.9677</b>		<b>0.9186</b>	<b>0.9186</b>		<b>2,921.9842</b>	<b>2,921.9842</b>	<b>0.6787</b>		<b>2,938.9523</b>

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Summer

**3.4 Sub Installation - 2020**

**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
Vendor	0.0235	0.6575	0.2213	1.4300e-003	0.0355	3.5400e-003	0.0391	0.0102	3.3900e-003	0.0136		155.7977	155.7977	0.0114		156.0829
Worker	0.1532	0.1187	1.1482	2.8000e-003	0.3095	1.9700e-003	0.3114	0.0821	1.8200e-003	0.0839		278.5303	278.5303	9.3200e-003		278.7633
<b>Total</b>	<b>0.1767</b>	<b>0.7762</b>	<b>1.3695</b>	<b>4.2300e-003</b>	<b>0.3450</b>	<b>5.5100e-003</b>	<b>0.3505</b>	<b>0.0923</b>	<b>5.2100e-003</b>	<b>0.0975</b>		<b>434.3280</b>	<b>434.3280</b>	<b>0.0207</b>		<b>434.8462</b>

**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	1.8828	17.6094	17.5139	0.0305		0.9677	0.9677		0.9186	0.9186	0.0000	2,921.9842	2,921.9842	0.6787		2,938.9523
<b>Total</b>	<b>1.8828</b>	<b>17.6094</b>	<b>17.5139</b>	<b>0.0305</b>		<b>0.9677</b>	<b>0.9677</b>		<b>0.9186</b>	<b>0.9186</b>	<b>0.0000</b>	<b>2,921.9842</b>	<b>2,921.9842</b>	<b>0.6787</b>		<b>2,938.9523</b>

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Summer

**3.4 Sub Installation - 2020**

**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
Vendor	0.0235	0.6575	0.2213	1.4300e-003	0.0355	3.5400e-003	0.0391	0.0102	3.3900e-003	0.0136		155.7977	155.7977	0.0114		156.0829
Worker	0.1532	0.1187	1.1482	2.8000e-003	0.3095	1.9700e-003	0.3114	0.0821	1.8200e-003	0.0839		278.5303	278.5303	9.3200e-003		278.7633
<b>Total</b>	<b>0.1767</b>	<b>0.7762</b>	<b>1.3695</b>	<b>4.2300e-003</b>	<b>0.3450</b>	<b>5.5100e-003</b>	<b>0.3505</b>	<b>0.0923</b>	<b>5.2100e-003</b>	<b>0.0975</b>		<b>434.3280</b>	<b>434.3280</b>	<b>0.0207</b>		<b>434.8462</b>

**3.5 BESS Installation - 2020**

**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	2.7411	25.1120	24.0825	0.0407		1.4012	1.4012		1.3450	1.3450		3,885.5744	3,885.5744	0.7316		3,903.8653
<b>Total</b>	<b>2.7411</b>	<b>25.1120</b>	<b>24.0825</b>	<b>0.0407</b>		<b>1.4012</b>	<b>1.4012</b>		<b>1.3450</b>	<b>1.3450</b>		<b>3,885.5744</b>	<b>3,885.5744</b>	<b>0.7316</b>		<b>3,903.8653</b>

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Summer

**3.5 BESS Installation - 2020**

**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
Vendor	0.0235	0.6575	0.2213	1.4300e-003	0.0355	3.5400e-003	0.0391	0.0102	3.3900e-003	0.0136		155.7977	155.7977	0.0114		156.0829
Worker	0.1532	0.1187	1.1482	2.8000e-003	0.3095	1.9700e-003	0.3114	0.0821	1.8200e-003	0.0839		278.5303	278.5303	9.3200e-003		278.7633
<b>Total</b>	<b>0.1767</b>	<b>0.7762</b>	<b>1.3695</b>	<b>4.2300e-003</b>	<b>0.3450</b>	<b>5.5100e-003</b>	<b>0.3505</b>	<b>0.0923</b>	<b>5.2100e-003</b>	<b>0.0975</b>		<b>434.3280</b>	<b>434.3280</b>	<b>0.0207</b>		<b>434.8462</b>

**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	2.7411	25.1120	24.0825	0.0407		1.4012	1.4012		1.3450	1.3450	0.0000	3,885.5744	3,885.5744	0.7316		3,903.8653
<b>Total</b>	<b>2.7411</b>	<b>25.1120</b>	<b>24.0825</b>	<b>0.0407</b>		<b>1.4012</b>	<b>1.4012</b>		<b>1.3450</b>	<b>1.3450</b>	<b>0.0000</b>	<b>3,885.5744</b>	<b>3,885.5744</b>	<b>0.7316</b>		<b>3,903.8653</b>

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Summer

**3.5 BESS Installation - 2020**

**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
Vendor	0.0235	0.6575	0.2213	1.4300e-003	0.0355	3.5400e-003	0.0391	0.0102	3.3900e-003	0.0136		155.7977	155.7977	0.0114		156.0829
Worker	0.1532	0.1187	1.1482	2.8000e-003	0.3095	1.9700e-003	0.3114	0.0821	1.8200e-003	0.0839		278.5303	278.5303	9.3200e-003		278.7633
<b>Total</b>	<b>0.1767</b>	<b>0.7762</b>	<b>1.3695</b>	<b>4.2300e-003</b>	<b>0.3450</b>	<b>5.5100e-003</b>	<b>0.3505</b>	<b>0.0923</b>	<b>5.2100e-003</b>	<b>0.0975</b>		<b>434.3280</b>	<b>434.3280</b>	<b>0.0207</b>		<b>434.8462</b>

**3.6 Sub Excavator - 2020**

**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	0.2450	2.4126	3.2678	5.1700e-003		0.1169	0.1169		0.1075	0.1075		500.1184	500.1184	0.1618		504.1621
<b>Total</b>	<b>0.2450</b>	<b>2.4126</b>	<b>3.2678</b>	<b>5.1700e-003</b>		<b>0.1169</b>	<b>0.1169</b>		<b>0.1075</b>	<b>0.1075</b>		<b>500.1184</b>	<b>500.1184</b>	<b>0.1618</b>		<b>504.1621</b>



Goleta Energy Storage Project - Santa Barbara County APCD Air District, Summer

**3.6 Sub Excavator - 2020**

**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
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	0.0000	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
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>

**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	0.2450	2.4126	3.2678	5.1700e-003		0.1169	0.1169		0.1075	0.1075	0.0000	500.1184	500.1184	0.1618		504.1621
<b>Total</b>	<b>0.2450</b>	<b>2.4126</b>	<b>3.2678</b>	<b>5.1700e-003</b>		<b>0.1169</b>	<b>0.1169</b>		<b>0.1075</b>	<b>0.1075</b>	<b>0.0000</b>	<b>500.1184</b>	<b>500.1184</b>	<b>0.1618</b>		<b>504.1621</b>

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Summer

**3.6 Sub Excavator - 2020**

**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
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	0.0000	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
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>

**3.7 Sub Crane - 2020**

**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	0.4534	5.3915	2.1154	5.7700e-003		0.2223	0.2223		0.2045	0.2045		558.7896	558.7896	0.1807		563.3077
<b>Total</b>	<b>0.4534</b>	<b>5.3915</b>	<b>2.1154</b>	<b>5.7700e-003</b>		<b>0.2223</b>	<b>0.2223</b>		<b>0.2045</b>	<b>0.2045</b>		<b>558.7896</b>	<b>558.7896</b>	<b>0.1807</b>		<b>563.3077</b>

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Summer

**3.7 Sub Crane - 2020**

**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
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	0.0000	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
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>

**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	0.4534	5.3915	2.1154	5.7700e-003		0.2223	0.2223		0.2045	0.2045	0.0000	558.7896	558.7896	0.1807		563.3077
<b>Total</b>	<b>0.4534</b>	<b>5.3915</b>	<b>2.1154</b>	<b>5.7700e-003</b>		<b>0.2223</b>	<b>0.2223</b>		<b>0.2045</b>	<b>0.2045</b>	<b>0.0000</b>	<b>558.7896</b>	<b>558.7896</b>	<b>0.1807</b>		<b>563.3077</b>

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Summer

**3.7 Sub Crane - 2020**

**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
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	0.0000	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
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>

**3.8 Surfacing/Paving - 2020**

**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	0.8095	9.5969	5.1461	0.0113		0.4066	0.4066		0.3744	0.3744		1,087.760 1	1,087.760 1	0.3480		1,096.460 5
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.8095</b>	<b>9.5969</b>	<b>5.1461</b>	<b>0.0113</b>		<b>0.4066</b>	<b>0.4066</b>		<b>0.3744</b>	<b>0.3744</b>		<b>1,087.760</b> <b>1</b>	<b>1,087.760</b> <b>1</b>	<b>0.3480</b>		<b>1,096.460</b> <b>5</b>

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Summer

**3.8 Surfacing/Paving - 2020**

**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
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	0.0406	0.0315	0.3046	7.4000e-004	0.0821	5.2000e-004	0.0826	0.0218	4.8000e-004	0.0223		73.8958	73.8958	2.4700e-003		73.9576
<b>Total</b>	<b>0.0406</b>	<b>0.0315</b>	<b>0.3046</b>	<b>7.4000e-004</b>	<b>0.0821</b>	<b>5.2000e-004</b>	<b>0.0826</b>	<b>0.0218</b>	<b>4.8000e-004</b>	<b>0.0223</b>		<b>73.8958</b>	<b>73.8958</b>	<b>2.4700e-003</b>		<b>73.9576</b>

**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	0.8095	9.5969	5.1461	0.0113		0.4066	0.4066		0.3744	0.3744	0.0000	1,087.7601	1,087.7601	0.3480		1,096.4605
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.8095</b>	<b>9.5969</b>	<b>5.1461</b>	<b>0.0113</b>		<b>0.4066</b>	<b>0.4066</b>		<b>0.3744</b>	<b>0.3744</b>	<b>0.0000</b>	<b>1,087.7601</b>	<b>1,087.7601</b>	<b>0.3480</b>		<b>1,096.4605</b>

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Summer

**3.8 Surfacing/Paving - 2020**

**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
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	0.0406	0.0315	0.3046	7.4000e-004	0.0821	5.2000e-004	0.0826	0.0218	4.8000e-004	0.0223		73.8958	73.8958	2.4700e-003		73.9576
<b>Total</b>	<b>0.0406</b>	<b>0.0315</b>	<b>0.3046</b>	<b>7.4000e-004</b>	<b>0.0821</b>	<b>5.2000e-004</b>	<b>0.0826</b>	<b>0.0218</b>	<b>4.8000e-004</b>	<b>0.0223</b>		<b>73.8958</b>	<b>73.8958</b>	<b>2.4700e-003</b>		<b>73.9576</b>

**3.9 Decommissioning - 2040**

**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	1.7356	8.9887	27.2354	0.0514		0.1275	0.1275		0.1275	0.1275		4,861.0933	4,861.0933	0.1511		4,864.8712
<b>Total</b>	<b>1.7356</b>	<b>8.9887</b>	<b>27.2354</b>	<b>0.0514</b>		<b>0.1275</b>	<b>0.1275</b>		<b>0.1275</b>	<b>0.1275</b>		<b>4,861.0933</b>	<b>4,861.0933</b>	<b>0.1511</b>		<b>4,864.8712</b>

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Summer

**3.9 Decommissioning - 2040**

**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
Vendor	9.1800e-003	0.3892	0.1172	1.2900e-003	0.0355	3.7000e-004	0.0359	0.0102	3.5000e-004	0.0106		143.7620	143.7620	0.0133		144.0955
Worker	0.0431	0.0224	0.3090	1.7000e-003	0.3095	7.0000e-004	0.3102	0.0821	6.5000e-004	0.0827		169.6789	169.6789	1.4600e-003		169.7155
<b>Total</b>	<b>0.0522</b>	<b>0.4116</b>	<b>0.4262</b>	<b>2.9900e-003</b>	<b>0.3450</b>	<b>1.0700e-003</b>	<b>0.3461</b>	<b>0.0923</b>	<b>1.0000e-003</b>	<b>0.0933</b>		<b>313.4410</b>	<b>313.4410</b>	<b>0.0148</b>		<b>313.8110</b>

**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	1.7356	8.9887	27.2354	0.0514		0.1275	0.1275		0.1275	0.1275	0.0000	4,861.0933	4,861.0933	0.1511		4,864.8712
<b>Total</b>	<b>1.7356</b>	<b>8.9887</b>	<b>27.2354</b>	<b>0.0514</b>		<b>0.1275</b>	<b>0.1275</b>		<b>0.1275</b>	<b>0.1275</b>	<b>0.0000</b>	<b>4,861.0933</b>	<b>4,861.0933</b>	<b>0.1511</b>		<b>4,864.8712</b>

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Summer

**3.9 Decommissioning - 2040**

**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
Vendor	9.1800e-003	0.3892	0.1172	1.2900e-003	0.0355	3.7000e-004	0.0359	0.0102	3.5000e-004	0.0106		143.7620	143.7620	0.0133		144.0955
Worker	0.0431	0.0224	0.3090	1.7000e-003	0.3095	7.0000e-004	0.3102	0.0821	6.5000e-004	0.0827		169.6789	169.6789	1.4600e-003		169.7155
<b>Total</b>	<b>0.0522</b>	<b>0.4116</b>	<b>0.4262</b>	<b>2.9900e-003</b>	<b>0.3450</b>	<b>1.0700e-003</b>	<b>0.3461</b>	<b>0.0923</b>	<b>1.0000e-003</b>	<b>0.0933</b>		<b>313.4410</b>	<b>313.4410</b>	<b>0.0148</b>		<b>313.8110</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**



Goleta Energy Storage Project - Santa Barbara County APCD Air District, 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	3.1000e-004	3.0000e-004	3.3300e-003	1.0000e-005	8.9000e-004	1.0000e-005	9.0000e-004	2.4000e-004	1.0000e-005	2.4000e-004		0.7391	0.7391	3.0000e-005		0.7397
Unmitigated	3.1000e-004	3.0000e-004	3.3300e-003	1.0000e-005	8.9000e-004	1.0000e-005	9.0000e-004	2.4000e-004	1.0000e-005	2.4000e-004		0.7391	0.7391	3.0000e-005		0.7397

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.21	0.00	0.00	304	304
Total	0.21	0.00	0.00	304	304

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
Other Non-Asphalt Surfaces	6.60	5.50	6.40	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.500000	0.500000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Summer

**5.1 Mitigation Measures Energy**

	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					
NaturalGas Mitigated	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
NaturalGas Unmitigated	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

**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					
Other Non-Asphalt Surfaces	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
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Summer

**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas 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					
Other Non-Asphalt Surfaces	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
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

	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	0.0631	0.0000	2.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		5.8000e-004	5.8000e-004	0.0000		6.2000e-004
Unmitigated	0.0631	0.0000	2.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		5.8000e-004	5.8000e-004	0.0000		6.2000e-004

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Summer

**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	0.0221					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0410					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.0000e-005	0.0000	2.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		5.8000e-004	5.8000e-004	0.0000		6.2000e-004
<b>Total</b>	<b>0.0631</b>	<b>0.0000</b>	<b>2.7000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>5.8000e-004</b>	<b>5.8000e-004</b>	<b>0.0000</b>		<b>6.2000e-004</b>

**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	0.0221					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0410					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.0000e-005	0.0000	2.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		5.8000e-004	5.8000e-004	0.0000		6.2000e-004
<b>Total</b>	<b>0.0631</b>	<b>0.0000</b>	<b>2.7000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>5.8000e-004</b>	<b>5.8000e-004</b>	<b>0.0000</b>		<b>6.2000e-004</b>

**7.0 Water Detail**

Goleta Energy Storage Project - Santa Barbara County APCD Air District, Summer

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**7.1 Mitigation Measures Water****8.0 Waste Detail**

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**8.1 Mitigation Measures Waste****9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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**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
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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## N2O Operational GHG Emission Mobile Calculations

Project Code & Title: 19-08526, Cortona Drive BESS

Vehicle Population Breakdown*	
345474	Gasoline vehicles
17836	Diesel vehicles
95.1%	Gasoline vehicle %
4.9%	Diesel vehicle %

VMT per Vehicle Type	
304	Project VMT (CalEEMod output)
289	Gasoline vehicle VMT
15	Diesel vehicle VMT

Gasoline Vehicles	
95.1%	Gasoline vehicle %
0.00002	Tons per year mobile NOX emissions (annual output in CalEEMod)
0.00	Gasoline vehicle tons per year NOX emissions
0.0000	Tons per year N2O emissions for gasoline vehicles**
0.0000	Metric tons per year N2O emissions for gasoline vehicles

Diesel Vehicles	
1.60	grams N2O per gallon of fuel for diesel vehicles**
23.22	Diesel average miles per gallon*
0.06891	grams per mile N2O for diesel vehicles
1.0	grams per year N2O for diesel vehicles
0.0000010	Metric tons per year N2O emissions for diesel vehicles

CO2e Emissions from N2O	
0.0000	Metric tons per year from gasoline + diesel vehicles
298	GWP of N2O***
<b>0.01</b>	<b>CO2e emissions per year from N2O emissions from gasoline + diesel vehicles</b>

Sources
<p><b>*Vehicle population source:</b>                      EMFAC2017 (v1.0.2) Emissions Inventory                      Region Type: County                      Region: SANTA BARBARA                      Calendar Year: 2030                      Season: Annual                      Vehicle Classification: EMFAC2011 Categories</p> <p><b>**Methodology source:</b>                      EMFAC2017 Volume III - Technical Documentation  <a href="https://www.arb.ca.gov/msei/emfac2011-faq.htm">https://www.arb.ca.gov/msei/emfac2011-faq.htm</a></p> <p><b>***GWP source:</b>                      Intergovernmental Panel on Climate Change (IPCC). 2007.                      AR4 Climate Change 2007: The Physical Science Basis.                      Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change.</p>