
Gonzales Municipal Electric Utility (GMEU)
Microgrid Project

Initial Study

October 15, 2021

Prepared by City of Gonzales

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Section I. Background

A. BACKGROUND

1. **Project Title:** Gonzales Municipal Electric Utility (GMEU) Microgrid Project

2. **Lead Agency Name and Address:**

City of Gonzales
147 Fourth Street
P.O. Box 647
Gonzales, California 93926

3. **Contact Person and Phone Numbers:**

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4. **Project Locations:**

The properties involved in the project are listed below in Table 1.

Table 1. Project Properties

Description	Address	Location	APNs
Privately-Owned Parcels by Bodega Microgrid LLC)	162 Bodega Road, Gonzales	In the Gonzales Agricultural Industrial Park (GAIBP)	223-081-017
City-Owned Drainage Basin	195 Katherine Street, Gonzales	In the GAIBP	223-081-009
City-Owned Wastewater Treatment Plant	400 Short Road, Gonzales	An island of incorporated land west of the City and near the Salinas River	216-032-011 216-032-001 223011-028 223-061-017 223-061-020 223-061-019 223-061-014
Public Park (Centennial Park)	250 1 st Street, Gonzales	In the southern portion of the residential area west of Hwy 101	020-201-012

Description	Address	Location	APNs
City- and County-Owned Rights-of-Way	Alpine Drive Alta Street "A" Street Gonzales River Road Katherine Street Puente Del Monte extension Short Road	Located in the GAIBP and adjacent streets around the GAIBP and streets in south Gonzales; Gonzales River Road is in both City and County jurisdictions	n/a
Private Street	Bodega Road, Gonzales	West side of Business Park	n/a

5. Project Proponents / Owners

Gonzales Municipal Electric Utility (GMEU)

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Gonzales, California 93926

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6. Consistency with Land Use Regulations

The General Plan designation, Zoning District, and proposed use for each of the properties involved in the project is described below in Table 2. Rights-of-way are not included in the table on the following page.

Table 2. Planning Designations

Description	APNs	Proposed Use	City of Gonzales GP Designation / Zoning District
162 Bodega Road, Gonzales	223-081-017	Public utility (energy generation, storage, control, sub-transmission substation); equipment storage; system maintenance	Industrial/Manufacturing / I, Industrial Zoning District
195 Katherine Street, Gonzales	223-081-009	Public Utility (energy generation) ¹	Industrial/ Manufacturing / I, Industrial Zoning District
250 1 st Street, Gonzales	020-201-012	Utility Power Interconnection w/ the existing California Independent Systems Operators/PG&E transmission lines via power lines overhead only.	Parks and Open Space—Community Park / OS, Open Space
400 Short Road, Gonzales	216-032-011 216-032-001 223011-028 223-061-017 223-061-020 223-061-019 223-061-014	Public Utility (energy generation)	Public/Quasi Public / PF, Public Facility

Sources: ZeroCity LLC; Concentric Power, Inc.; Gonzales 2010 General Plan; City Zoning Map

With acquisition of two conditional use permits from the City of Gonzales, the Distribution System and Generation and Storage Facilities (described in section II.C below) are consistent with the zoning and the general plan designations of the properties involved. The GMEU will be required to obtain a conditional use permit for the Distribution System and Bodega Microgrid will be required to obtain a conditional use permit for the power generation, power storage substation, and control equipment (“Generation and Storage Facility”).

Power generation, power storage, substation, and control equipment for the microgrid system are proposed to be developed on land designated in the General Plan for Industrial/Manufacturing and Public Facility uses. The transmission, power generation tie-in (“gen-tie”), and Distribution System are proposed to be developed on city-owned (wastewater treatment and retention facilities), county-owned (Gonzales River Road right-of-way), and privately-owned rights-of-way (Bodega Road and adjacent properties owned by Bodega Microgrid) that extend throughout the GMEU service territory.

¹ Site of existing Business Park retention pond

A section of the Distribution System will extend along the “A” Street city-owned right-of-way through a residential neighborhood in order to connect to the regional power grid operated by California Independent Systems Operators (CAISO)/PG&E. Said regional power grid already exists and runs through the City of Gonzales roughly parallel to the Highway 101 right-of-way and through Centennial Park. While some of the rights-of-way are designated Open Space by the City’s General Plan and zoning (said right-of-way is in Centennial Park where the power line will traverse overhead to connect to the existing CAISO/PG&E power lines in Centennial Park), the use of a public right-of-way for above ground power transmission lines is considered an allowed use.

7. **Responsible Agencies**

Other public agencies whose approval is required to implement the project include:

- County of Monterey Health Department (Environmental Health) – Hazardous Materials Permit;
- County of Monterey Public Works Department - encroachment permit related to Gonzales River Road;
- Monterey Bay Air Resources District – Stationary Engine Permits;
- CAISO/PG&E² – Interconnection to regional electric power grid;
- California Public Utilities Commission (CPUC);
- Regional Water Quality Control Board (RWQCB); and
- City of Gonzales conditional use permits (described below)

8. **City of Gonzales Approvals**

The project will require the following approvals:

- Conditional Use Permit from the City of Gonzales for Distribution System.
- Conditional Use Permit from the City of Gonzales for power Generation and Storage Facility and substation.

B. PURPOSE OF INITIAL STUDY

This Initial Study has been prepared pursuant to the California Environmental Quality Act (CEQA). The purposes of an Initial Study are to:

- Provide the Lead Agency with information to use as the basis for deciding whether to prepare an Environmental Impact Report (EIR) or a Negative Declaration (ND).

² Although PG&E is not a “responsible agency for purposes of CEQA, it will be involved in this project’s ambition to connect to the CAISO.

- Enable a Lead Agency to modify a project, mitigating adverse impacts before an EIR is prepared, thereby enabling the project to qualify for a ND.
- Assist in the preparation of an EIR, if one is required.
- Facilitate environmental assessment early in the design of a project.
- Provide documentation of the factual basis for the finding in a ND that a project will not have a significant effect on the environment.
- Eliminate unnecessary EIRs.
- Determine whether a previously prepared EIR could be used with the project. [Per CEQA Guidelines Section 15063(c)]:

According to CEQA Guidelines Section 15070, a public agency shall prepare a Negative Declaration or a Mitigated Negative Declaration when:

1. The initial study shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, or
2. The initial study identifies potentially significant effects, but:
 - a. Revisions in the project plans made before a proposed mitigated negative declaration and initial study are released for public review will avoid the effects or mitigate the effects to a point where clearly no significant effects will occur, and
 - b. There is no substantial evidence, in light of the whole record before the agency, that the project as described may have a significant effect on the environment.

C. CEQA METHODOLOGY

This initial study has been prepared using the “tiering” provisions of CEQA as identified in CEQA Guidelines section 15152, wherein lead agencies are encouraged to use the analysis contained in EIRs for broader projects (i.e., a general plan EIR) as part of the analysis for subsequent specific projects. Section 15152(e) notes that tiering must be limited to situations where a project is consistent with the general plan and zoning. As discussed above, the individual proposed projects are consistent with the General Plan Industrial/ Manufacturing and Public/Quasi Public land use designations and with the corresponding zoning districts.

The Gonzales 2010 General Plan Final EIR (General Plan EIR) examined potential impacts related to implementation of the *Gonzales 2010 General Plan*, including future development of the Gonzales Agricultural Industrial Business Park. In addition, the “Environmental Impact Report, Gonzales Agricultural Industrial Business Park” (SCH# 2004081010) (Gonzales Agricultural Industrial Business Park EIR) or “Business Park EIR” examined potential impacts from the development and operation of the Gonzales Agricultural Industrial Business Park (“Business Park”). Consequently, where prudent and applicable, information contained in this initial study is tiered from the General Plan EIR and the Gonzales Agricultural Industrial Business Park EIR to avoid redundancy and streamline the analysis process for the project. Said documents are available at the City of Gonzales Community Development Department.

The analysis methodology in this initial study also considers the streamlining provisions contained in section 15183 of the CEQA Guidelines.

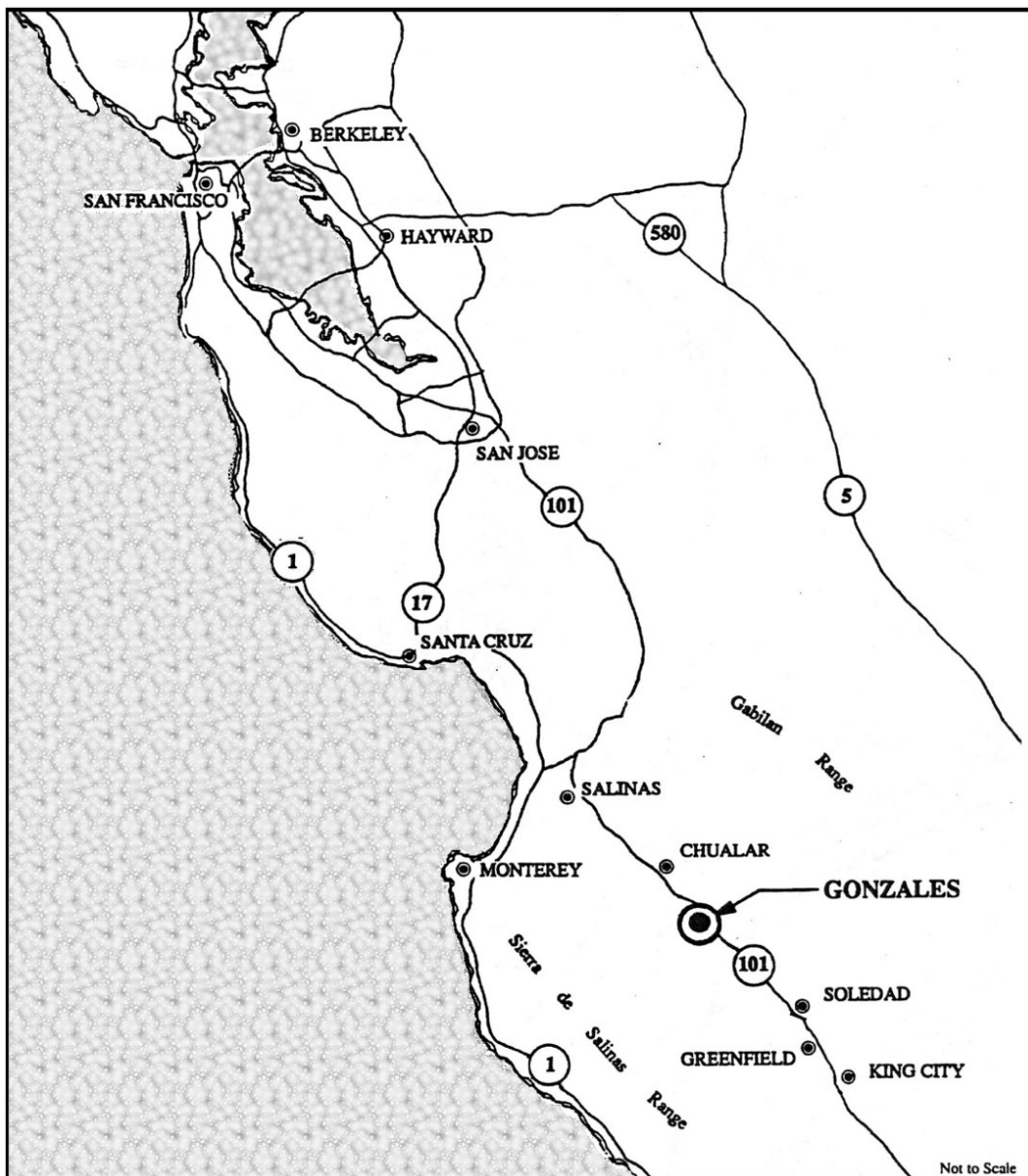
Section 15183 is particularly relevant for assessment of the incremental cumulative impacts of the project, especially where such impacts were found to be significant and unavoidable in the General Plan EIR. The General Plan EIR identified several significant and unavoidable impacts for which the City Council adopted a Statement of Overriding Consideration. In these cases, the analysis in this initial study concludes that the contribution of the project to these significant and unavoidable cumulative impacts was already identified and addressed in the General Plan EIR. This approach is consistent with CEQA Guidelines section 15183(c) which states, “if an impact is not peculiar to the parcel or to the project, has been addressed as a significant effect in the prior EIR, or can be substantially mitigated by the imposition of uniformly applied development policies or standards, as contemplated by subdivision (e) below, then an additional EIR need not be prepared for the project solely on the basis of that impact.”

Section II. Project Description

A. PROJECT LOCATION

The project is located in Monterey County. The sites are located in the City of Gonzales (to include power generation, power storage and distribution assets) and in adjacent unincorporated area of Monterey County (gen-tie and sub-transmission lines only). Gonzales is approximately 20 miles south of the City of Salinas on State Route 101. Figure 1 shows the regional location of Gonzales.

FIGURE 1: REGIONAL LOCATION MAP



B. ENVIRONMENTAL SETTING

The proposed electric power distribution microgrid and the electric power generation and storage system (collectively hereinafter referred to as the GMEU Microgrid Project, or “Microgrid Project”) are located in and adjacent to the Business Park and the Gonzales Wastewater Treatment Plant, both located in the City of Gonzales. Table 3 provides information on existing and surrounding uses. Figure 2 shows the project site locations and surrounding uses.

Table 3. Existing and Surrounding Uses

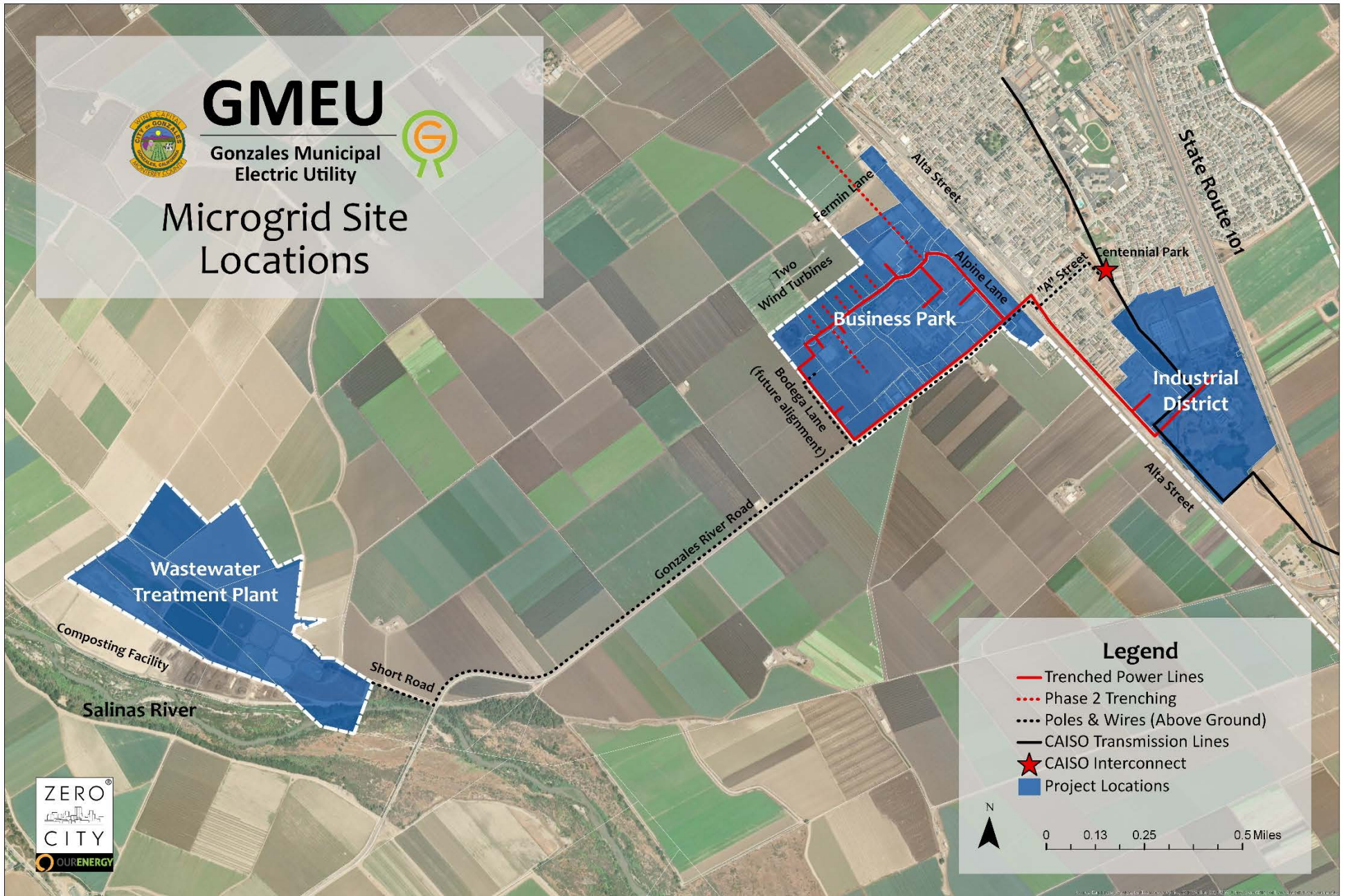
Description	APNs	Existing Use	Surrounding Uses
142 and 122 Bodega Road, Gonzales, California 93926	223-081-019 223-081-018	Vacant, undeveloped industrial land within the boundaries of the Business Park	East: Fallow Business Park land South: Fallow Business Park land West: Unincorporated agricultural land North: Fallow Business Park land
162 Bodega Road, Gonzales, California 93926	223-081-017	Vacant, undeveloped industrial land within the boundaries of the Business Park	East: Agricultural Industrial Uses South: Fallow Business Park land West: Unincorporated agricultural land North: Business Park drainage pond
195 Katherine Street, Gonzales, California 93926	223-081-009	Business Park retention pond	East: Agricultural Industrial Uses South: Fallow Business Park land West: Unincorporated agricultural land North: Unincorporated agricultural land and large wind turbine
250 1 st Street, Gonzales, California 93926	020-201-012	Centennial Park (city owned)	East: Residential neighborhood South: City maintenance yard West: Residential neighborhood North: Elementary school and residential neighborhood
400 Short Road, Gonzales, California 93926	216-032-011 216-032-001 223-011-028 223-061-017 223-061-020 223-061-019 223-061-014	Wastewater treatment pond and percolation beds Wastewater treatment pond and percolation beds Active row crop use (wastewater treatment expansion area)	East: Unincorporated County agricultural land South: Composting facility; Salinas River corridor West: Composting facility; unincorporated agricultural land; Salinas River corridor North: Unincorporated agricultural land

Description	APNs	Existing Use	Surrounding Uses
Alta Street “A” Street Alpine Drive Katherine Street Puente Del Monte Ext Gonzales River Road Short Road	n/a	Existing streets or road	“A” St. – residential neighborhood with limited commercial uses at the western end at Alta St. Alta St. – Commercial neighborhood Alpine, Katherine, Puente del Monte – Industrial neighborhood Gonzales River Rd and Short Rd – Comm/Ind at eastern end; agricultural uses in middle and west end; WWTP at north end of Short Rd, Salinas River south and agricultural uses north.

Figure 3 provides a close-up of the GMEU potential customer locations and surrounding uses. The customer base also includes the City of Gonzales’ own wastewater treatment plant located at 400 Short Road (not shown in Figure 3 but shown in Figure 2).

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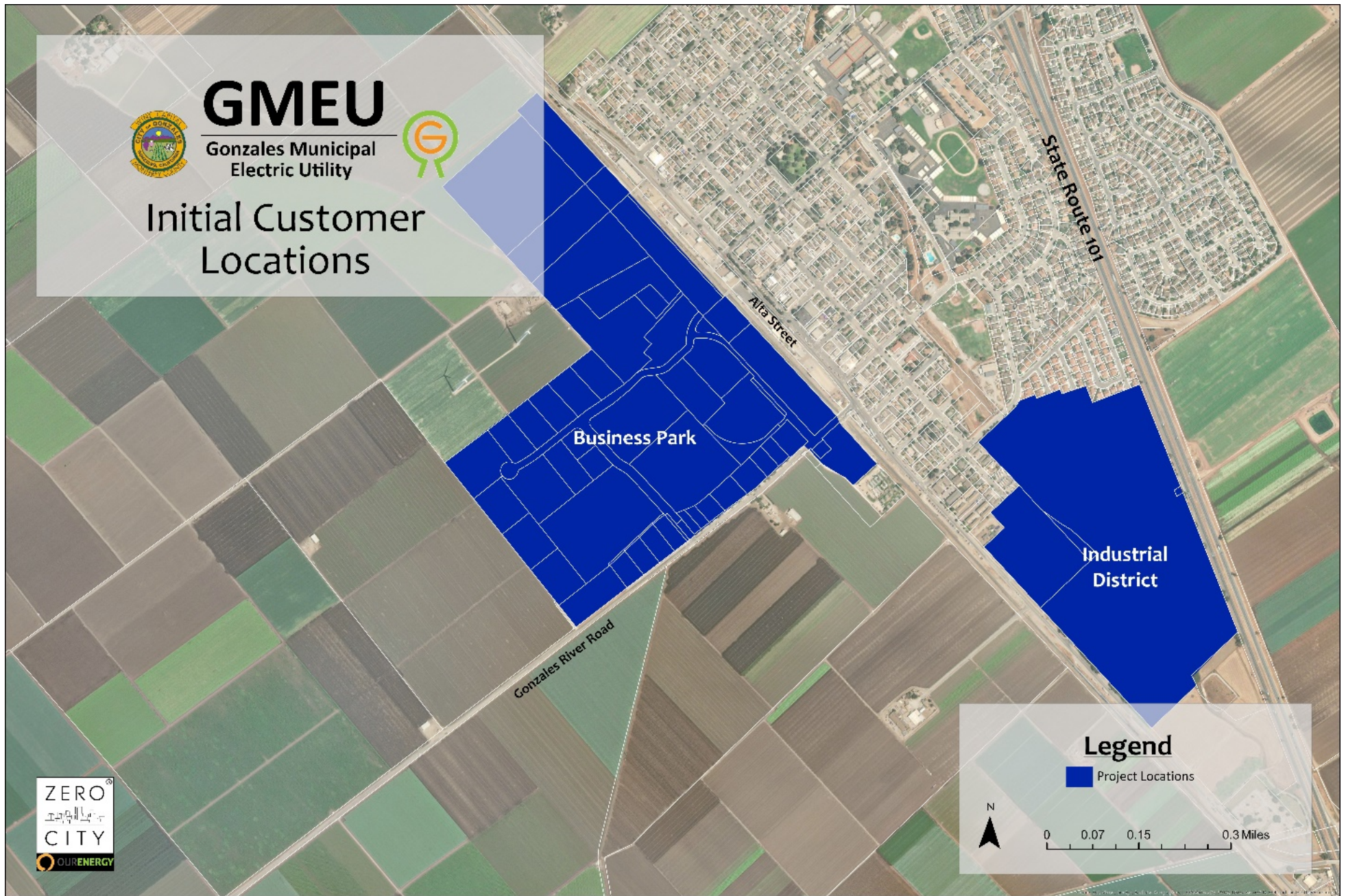
FIGURE 2: PROJECT SITE LOCATION AND SURROUNDING USES



Source: ZeroCity LLC; Concentric Power

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FIGURE 3: CUSTOMER LOCATIONS



Source: ZeroCity LLC; Concentric Power

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C. PROJECT DESCRIPTION

A detailed description of both project components is provided below.

1. *Electric Power Distribution System (Various Rights-of-Way in Gonzales and County of Monterey)*

This project component (the “Distribution System”) will be constructed, owned and operated by GMEU. The purpose and need, project characteristics, and construction activities related to this Distribution System are described below.

Purpose and Need

The purpose of the Distribution System is to enable the GMEU to provide electric power as a utility service to customers in and adjacent to the Business Park. The GMEU was formed to provide electric utility service in the Business Park because in recent years PG&E—the current provider of electric power in Gonzales—has been unable to serve the growing needs of the Business Park. PG&E’s lack of capacity in its regional power grid meant that new Business Park tenants could not be connected to power in a reasonable period of time. In addition, PG&E’s Public Safety Power Shutoffs (PSPS) threaten the long-term viability of the agricultural producers in the Business Park, which can lose millions of dollars each day without electric power. Such a PSPS occurred in 2019 whereby power was shut off for two days.

Project Characteristics

The Distribution System involves the construction and operation of a utility-grade electric power Distribution System which will be constructed in two phases and will be owned and operated solely by the GMEU. The Distribution System will serve customers in the Business Park as well as the adjacent Industrial District in south Gonzales (refer to Figures 2 and 3) and will include handling of incidental renewable electric power generated on-site by GMEU customers (i.e., electric power feed in from private photovoltaic systems and, or co-generation). The Distribution System will initially be designed to be a standalone system (i.e., unconnected to the PG&E regional power grid), with future capability of interconnecting with the CAISO/PG&E regional power grid at a location within the Centennial Park located at the terminus of “A” Street.

Within the Business Park itself, electric energy distribution lines have been designed in a loop that is bordered by Bodega Road (a private street to be constructed on Bodega Microgrid LLC property providing access to 122, 142, and 162 Bodega Road) on the west, Gonzales River Road on the south, Alpine Drive on the east, and Fermin Lane on the north (see Figure 4). Distribution lines will run off the loop to customers as needed. One distribution spur is slated to run east on Gonzales River Road to Alta Street making a southward turn on Alta until arriving at a point on Gonzales River Road where the distribution spur will serve the Industrial District along Alta Street to include Josie’s Organics and Constellation brands (and others as necessary).

Figure 4 shows the proposed location of the Distribution System to serve customers in and around the Business Park and the Industrial District. Figure 5 shows a diagram of a prototypical distribution substation. Figure 6 shows a prototypical distribution connection to an industrial customer.

Construction Activities

Equipment to be used during construction of the Distribution System is premised on whether there is trenching to accommodate electrical lines or installation of above ground power poles. As shown in Figure 2, trenching to accommodate the power distribution lines will occur within the Business Park and in Gonzales River Road and Alta Street. Otherwise, there are power distribution lines to be set on new power poles to be installed above ground on Short Road, Gonzales River Road and “A” Street as shown in Figure 2. Equipment associated with trenching and installation of power poles is expected to include backhoes (for trenching and placement and removal of temporary steel plates) and drilling machines (for power poles). The construction crew will consist of 10 to 15 persons. Access to 162 Bodega Road where the substation and power storage will be located will be via a new road (Bodega Road) extending north from Gonzales River Road. Figures 2, 3 and 4 show this new road location.

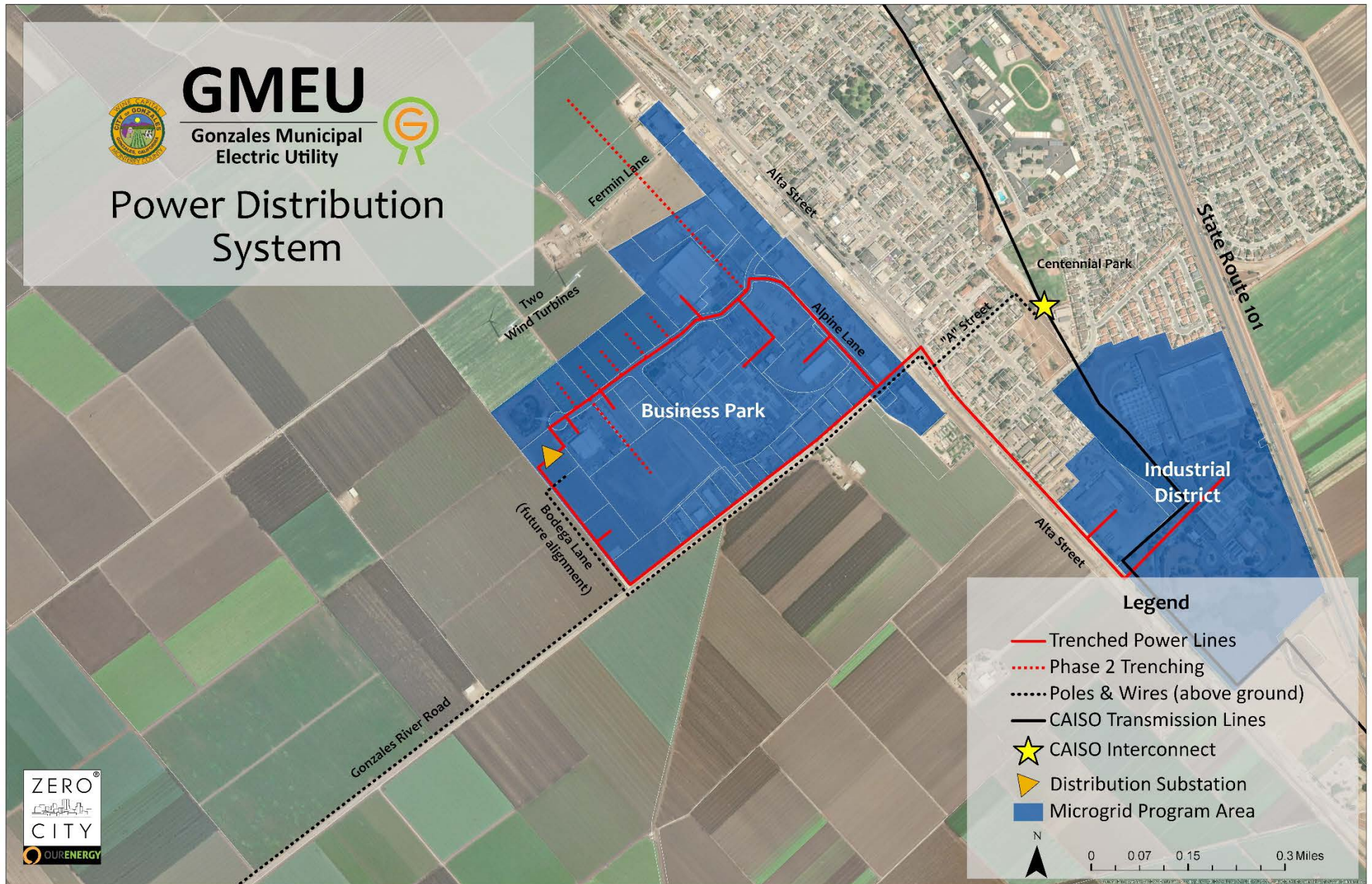
Installation/construction of the Distribution System is expected to cause temporary traffic disruption that is expected to last approximately six months over the entirety of the distribution route as the distribution line is installed incrementally.

This construction work to install underground power lines and overhead power lines on poles will temporarily disrupt traffic flows along streets shown in Figures 2 and 4 (Gonzales River Road, Alta Street and “A” Street). Trenching techniques to assure maximum safety and minimum exposure to open trenches will be implemented. This includes digging to depth, installing infrastructure, backfilling, compacting and applying new blacktop at the end of the day; steel plates are used where and when needed. Barricades and traffic control are used appropriately. For the above ground Distribution System assets, a combination of existing and new power poles will be used. Barricades and traffic control are used appropriately for this segment of work as well.

The aforementioned trenching and installation of power poles and associated lines will commence at the WWTP and proceed towards the Business Park where the Distribution System will then diverge to the Business Park. Distribution lines continue into the residential, commercial and industrial area of the City east of Alta Street via poles as described above.

Within the Business Park the distribution lines include digging trenches, installing electric conduit, installing electric conductors and communication fiber options into conduit, installing distribution substation, switching equipment, transformers, and related electric components, filling and compacting trenches, and returning the surface area to its pre-construction state (e.g., repairing any street or roadway pavement that was disturbed). Regardless of where it will occur, trenching depths could vary slightly but will be approximately three (3) feet deep and two (2) feet wide.

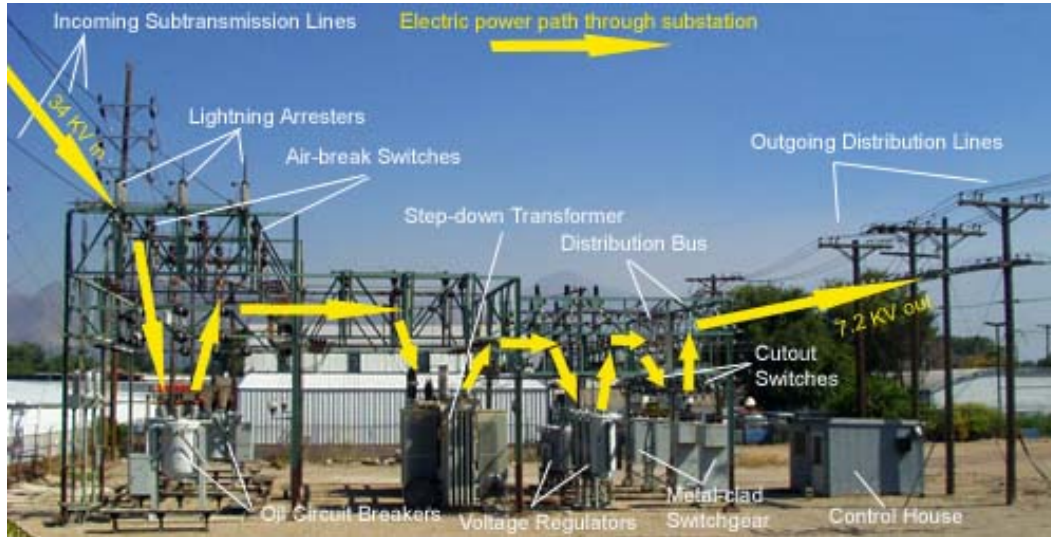
FIGURE 4: POWER DISTRIBUTION SYSTEM



Source: ZeroCity LLC; Concentric Power

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FIGURE 5: PROTOTYPICAL DISTRIBUTION SUBSTATION



Source: United State Department of Labor, OSHA. See https://www.osha.gov/SLTC/etools/electric_power/illustrated_glossary/substation.html

FIGURE 6: PROTOTYPICAL DISTRIBUTION CONNECTION



Source: United State Department of Labor, OSHA. See https://www.osha.gov/SLTC/etools/electric_power/illustrated_glossary/substation.html

Distribution System

The Microgrid will consist of multiple overhead pole routes and underground trench paths to transfer energy in and out of the microgrid.

12kV Underground

New pad mount distribution equipment will be installed within the City of Gonzales right-of-way in the commercial business park. Underground ducts with cables will be trenched in the right-of-way. A total of 1.6 miles of trenching is required. The total lengths and widths of the trenches are as follows:

1. 1,600 ft. 30in along Bodega Road
2. 2,450 ft. 18in along Katherine Street
3. 1,450 ft. 18in along Alpine Road
4. 300 ft. 18in along Gonzales River Road
5. 2,900 ft. 30in along South Alta Street

12kV Overhead

60 new poles are required to collect power from the photovoltaic system at 12kV. They will be wood poles spaced between 200 - 350ft, directly buried to a depth of 6ft. The same poles used to carry the 69kV overhead will be used to carry distribution circuits for customers. A total of 2.3 miles of power line is required:

1. 3,900 ft on City of Gonzales Wastewater Treatment Plant property
2. 1,400 ft along Short Rd
3. 6,800 ft along Gonzales River Rd

69kV Overhead

20 new poles are required to interconnect the microgrid with PG&E and the CAISO grid at 69kV. Tangents will be wood poles, dead end and turning structures as galvanized steel poles. Poles will be spaced between 250 - 400ft, directly buried to a depth of 8 - 12ft. A new wood pole required by the utility will serve as the point of common ownership and will be in Centennial Park. A total 1.0 mile of power line is required:

1. 1,340 ft on private property in the commercial business zoning
2. 60 ft - Cross Alta St
3. 3,070 ft along Gonzales River Rd
4. 870 ft along "A" St
5. 140 ft into Centennial Park to intercept the existing PG&E line

Installation of power poles and electrical lines will be conducted by the lineman who will use a boom truck with an auger attachment to drill the ground and set the poles. Poles will be towed onsite with a pole trailer. A bucket and boom truck will be used to lift men and material up to frame the poles. A cable reel trailer will be used to string conductor up onto the framing. Lineman will lash and tension the conductors from bucket trucks.

FIGURE 7: “A” ST. – LOOKING WEST FROM WEST BOUNDARY OF CENTENNIAL PARK



FIGURE 8: “A” ST. – LOOKING WEST FROM INSIDE OF CENTENNIAL PARK



FIGURE 9: CAISO/PG&E POWER LINES (69 KV EACH) IN CENTENNIAL PARK



2. *Power Generation and Storage Facility (@ 162 Bodega Road, 195 Katherine Street/Drainage Pond and 400 Short Road/Wastewater Treatment Facility)*

This project component (the “Generation and Storage Facility”) will be constructed, owned and operated by Bodega Microgrid LLC. The purpose and need, project characteristics, and construction activities related to this system component are described below.

Purpose and Need

The purpose of the Electric Power Generation and Storage Facility is to enable Bodega Microgrid LLC to provide wholesale electric power the GMEU, which in turn, sells and distributes the power as a utility service to customers in and adjacent to the Business Park. The Generation and Storage Facility will include a substation and transmission system of direct to customer electrical lines and to connect the microgrid system to PG&E’s regional power grid (when appropriate), which will be used to sell incidental excess power to the PG&E regional power grid, when such excess power is available.

Project Characteristics

The Generation and Storage Facility includes the construction and operation of an electric power generation and storage system – a “powerhouse”. It will be constructed in two phases and will be constructed, owned and operated by Bodega Microgrid, LLC. The Generation and Storage Facility will provide electric power to the GMEU. The Generation and Storage Facility will include:

1. The generation of electric power using solar panels and natural gas engines (engines housed in one or more engine rooms – at 162 Bodega Road);
2. The Generation and Storage Facility also includes the development of a “powerhouse” building as a location for the natural gas engines, the battery energy storage systems, and switchgear;
3. The proposed microgrid is rated up to 45 megawatts (MW) of solar generation, supplemented by 15.5 MW of firm electric power and 10.0 MW/40 megawatt-hour (MWh) battery energy storage system (one component of the “powerhouse”);
4. Gen-Tie and metering between electric power generation assets and Distribution Systems in and adjacent to the Gonzales Agricultural Industrial Business Park;
5. Switch gear. Electrical switchgear refers to a centralized collection of circuit breakers, fuses and switches (circuit protection devices) that function to protect, control and isolate electrical equipment. A collection of one or more of these structures is called a switchgear line-up or assembly;
6. The construction and operation of a substation with the capacity to export electric power and grid services to the PG&E regional power grid;
7. The sub-transmission and metering of electric power from the microgrid substation to the CAISO/PG&E power grid connection;
8. Construction of Bodega Road - a new street right-of-way to be constructed extending to the north from Gonzales River Road and terminating at the Katherine Street retention pond. This road is private and will have an all-weather surface with gravel; and
9. “Power hub” (location of the microgrid controller (“computer”) that will provide the “command and control” of the power generation and storage system) to be located at 162 Bodega Road.

Refer to Figures 11, 12 and 13, which show the “Microgrid Power Generation and Storage”, “Solar Photovoltaic Plan Schematic” and the “Substation with Gas Power Facility Schematic”, respectively.

Phase 1 of the Generation and Storage Facility will include installation of approximately 17 MWdc of solar generation to be located at the WWTP, 15.5 MWac of firm electric power in the form of 5 high-efficiency natural gas engines to be located at 162 Bodega Way, and a 10.0 MWdc/40 MWh battery energy storage system. The solar field will be a combination of ground mount, raised clear-span mount (carport style), and potentially, floating mount, solar panels. The installation of these solar panels will occur on land owned by the City of Gonzales and leased by Bodega Microgrid Generation LLC that is located on and adjacent to the City’s wastewater percolation ponds at 400 Short Road as well as at 195 Katherine St. where the City currently has a retention pond.

The height of the powerhouse will be approximately 35 feet, consistent with other industrial buildings in the Business Park.

Power generation will be provided by five natural gas engines: two 2.5 MW and two 4.0 MW natural gas engines, with one additional 2.5 MW natural gas engine serving as a backup unit for use only when one other unit is off-line for repair and maintenance. Engine air emissions will be controlled through selective catalytic reduction (SCR) installed on each engine. The SCR reduces NOx and CO emissions from the engines to levels acceptable to the Monterey County Air Resources Board. Aqueous ammonia (ammonium hydroxide at 19 percent nominal concentration by weight) will be used to reduce NOx concentrations. Ammonia will continuously be delivered to the site by truck and stored at the new aqueous ammonia storage and transferring system. The system consists of a truck unloading station, ammonia storage tanks (not to exceed 10,000 pounds in total), and aqueous ammonia pumps transferring skid. The powerhouse site will also include cooling tower(s) and engine stacks up to 35 feet in height.

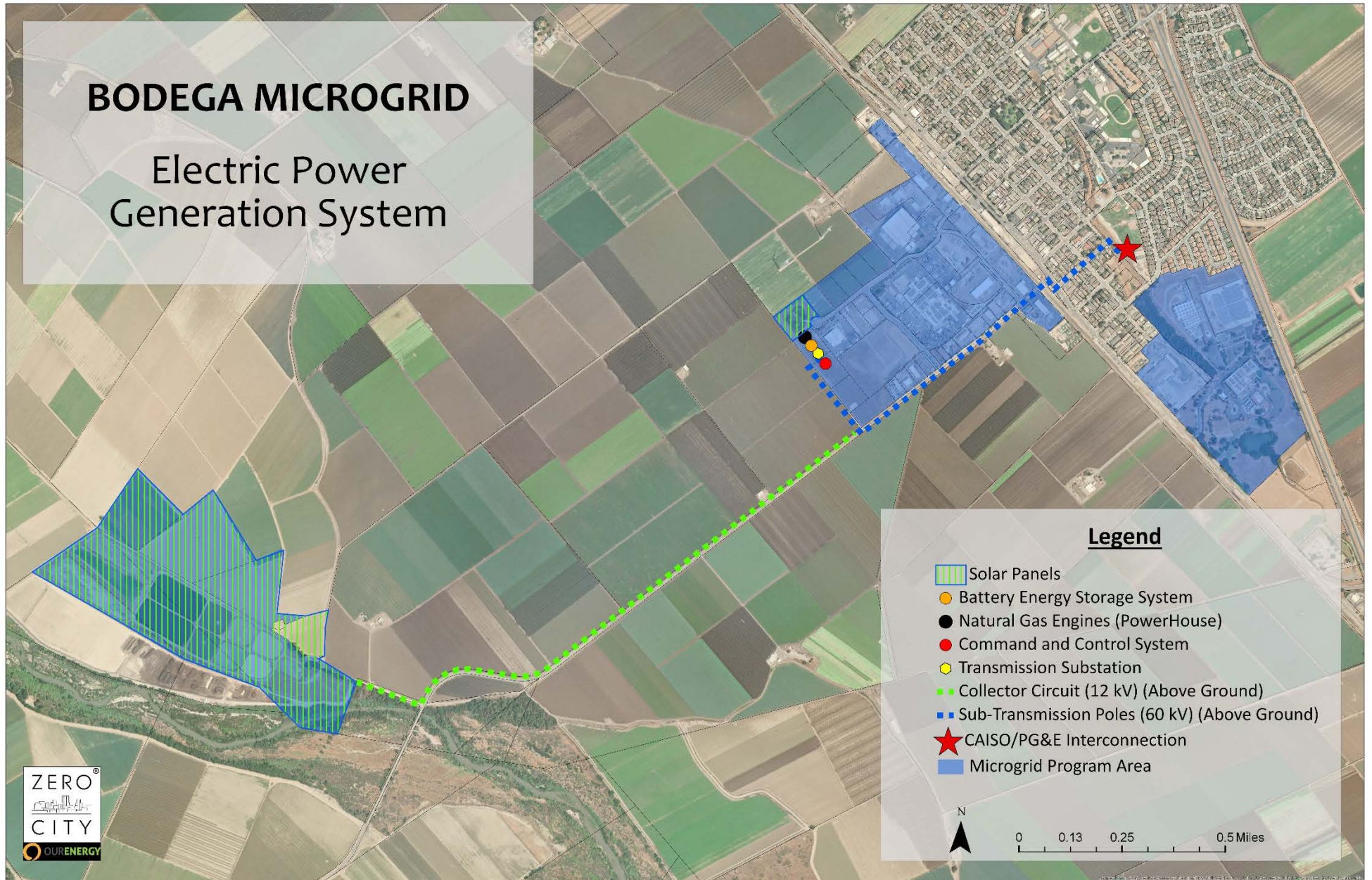
The transport of electric power from the wastewater treatment plant to the power hub at 162 Bodega Road via a collector circuit line approximated two (2) miles long. Power will also be transported from the power generation (solar panels) on land leased by Bodega Microgrid LLC from the City of Gonzales at 195 Katherine Street (the location of a city owned retention pond that serves the Business Park). The conductors used in the collector circuit will be placed above ground on power poles along Gonzales River Road to Bodega Road.

The Generation and Storage Facility will also include a sub-transmission system capable of exporting electric power and grid services from the planned substation to an interconnection at the CAISO/PG&E's regional power grid at Centennial Park, 250 1st Street. The conductors used in the sub-transmission systems will be located both above ground on poles and in some locations below ground in trenches.

An electric open-air substation will be built as part of the microgrid system. The substation is estimated to be 15,000 square feet. Components of the substation include switch gear, transformers, circuit breakers, air switches, buses, and other standard components.

Figure 11 shows the approximate location of components of the Microgrid Power Generation and Storage Facility.

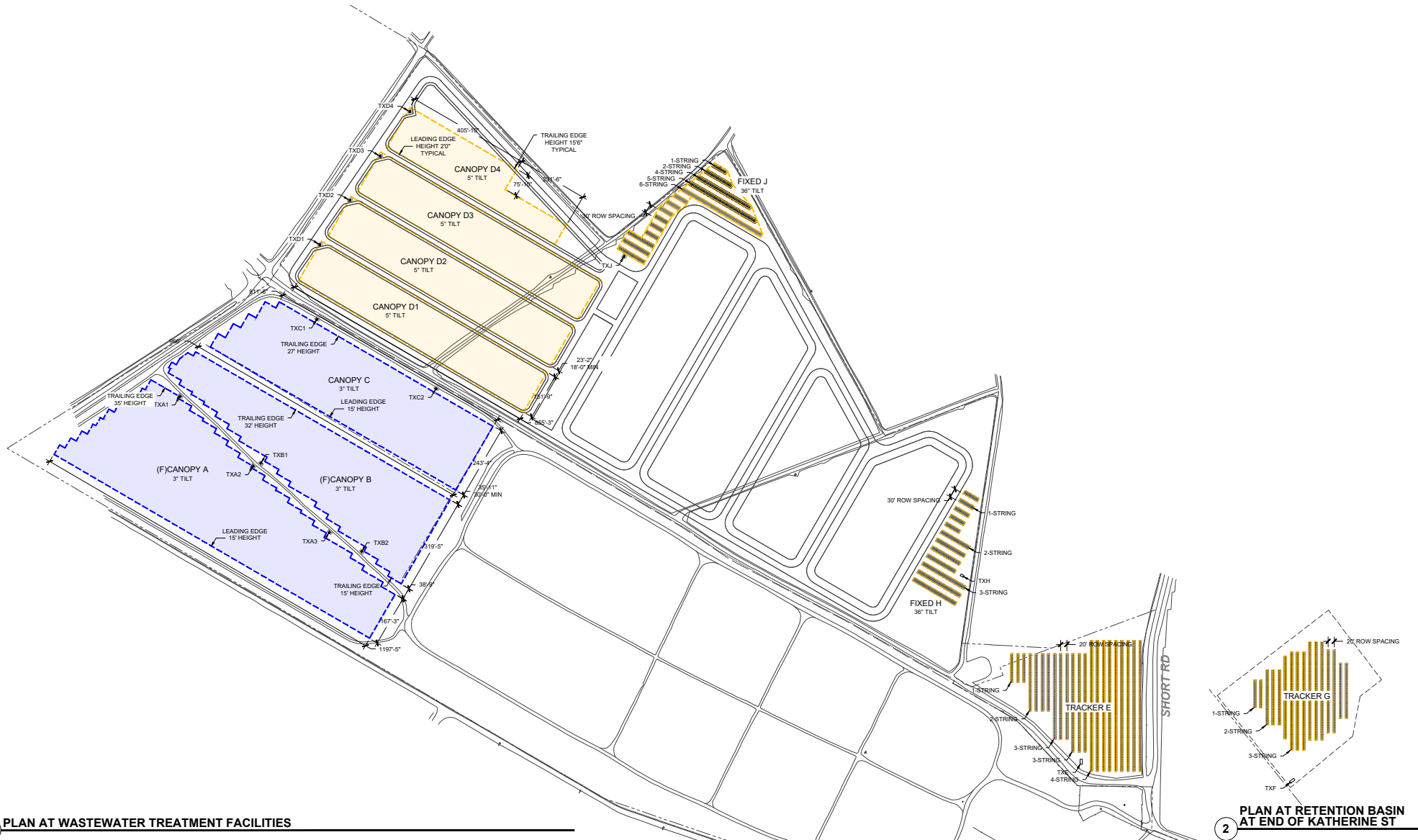
FIGURE 10: MICROGRID POWER GENERATION SYSTEM



Source: ZeroCity LLC; Concentric Power Inc

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FIGURE 11: SOLAR PHOTOVOLTAIC PLAN AT WWTP



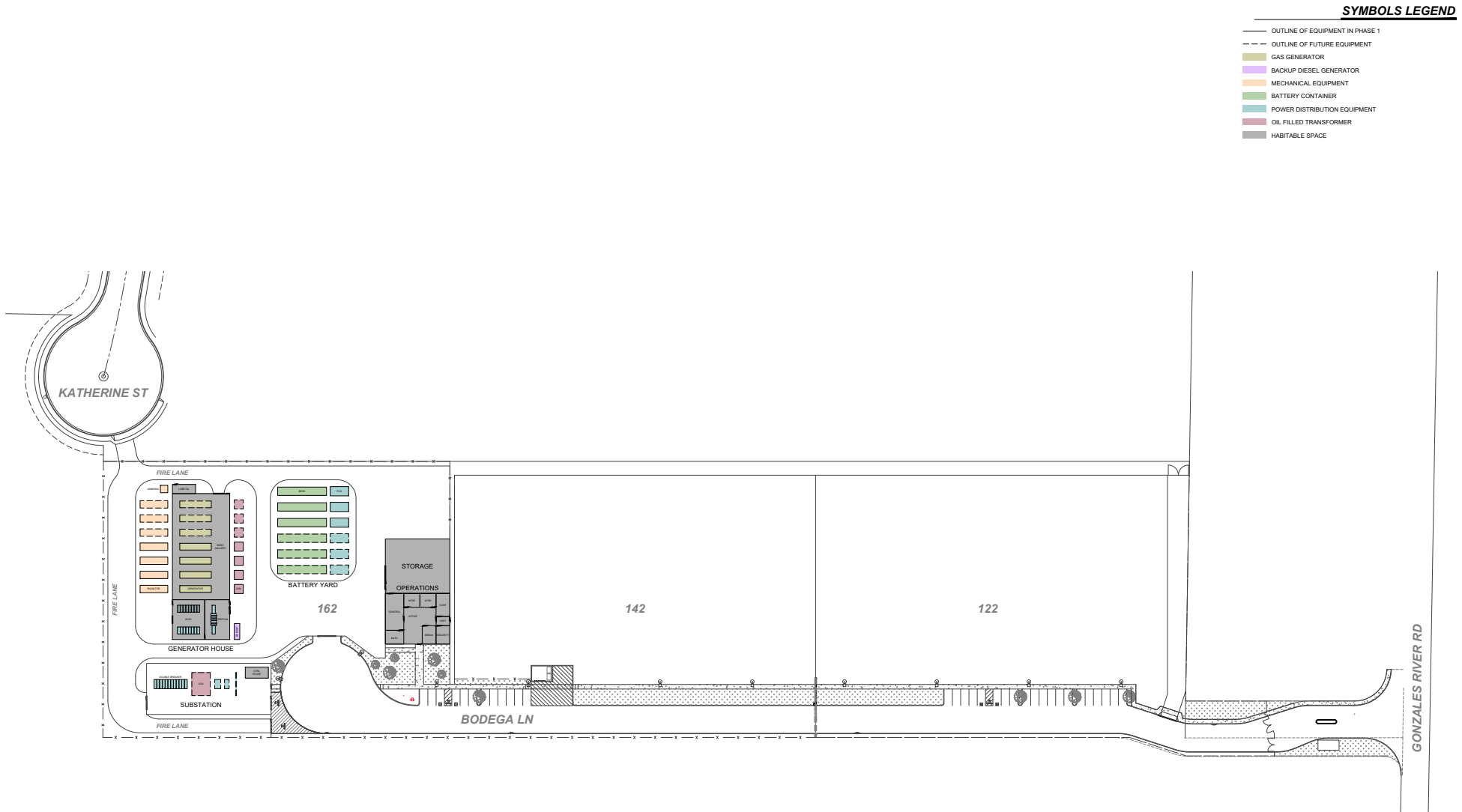
1 PLAN AT WASTEWATER TREATMENT FACILITIES

2 PLAN AT RETENTION BASIN AT END OF KATHERINE ST

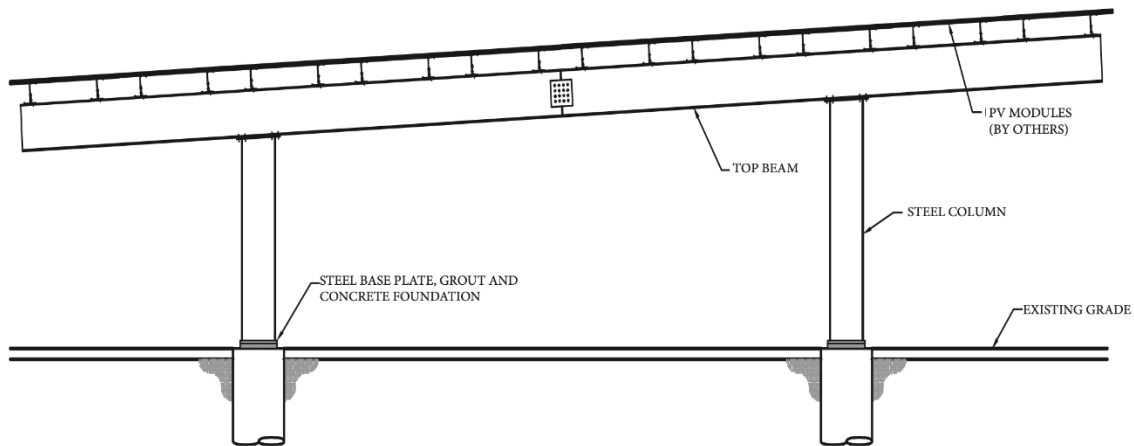
Source: Concentric Power; Phase Engineering

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FIGURE 12: SUBSTATION WITH POWER STORAGE AND GAS POWER FACILITIES



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FIGURE 13: SOLAR PANEL EXAMPLE

Construction Activities

Equipment to be used during construction of the power generation and storage facility is expected to include bulldozer, backhoe, and other standard construction equipment. According to project applicants, the construction crew will consist of 10 to 15 persons. The construction crew is expected to access the powerhouse site via Bodega Road (a new right-of-way to be constructed extending from Gonzales River Road northwest to the end of the most northern lot). Access to the Gonzales Wastewater Treatment Facility site will be via Gonzales River Road and Short Road. Construction of the substation and storage will take 18 to 24 months. (email correspondence, Amy Tomlinson, Concentric Power, July 27, 2021).

Construction of the Generation and Storage Facility will consist of the following activities:

Power Generation (Solar Panels and Natural Gas Engines)

- At 400 Short Road (Gonzales Wastewater Treatment Plant): minor grading, clearing, grubbing of sites where ground-mounted solar will be installed (the targeted installation sites are essentially topographically flat); construction of poles approximately 20 feet tall upon which ground-mounted solar will be installed; and installation of supporting equipment such as power inverters, conductors, and other related electric components and construction of chain-link fencing around the perimeter of each solar site.
- At 195 Katherine Street (Business Park drainage basin): minor grading, clearing, grubbing of site around the perimeter of the drainage basin where ground-mounted solar will be installed (the perimeter is essentially topographically flat); construction of poles approximately 20-foot tall upon which ground-mounted solar will be installed; and installation of supporting equipment, such as power inverters, conductors, and other related electric components.

- At 162 Bodega Road: minor grading, clearing, grubbing of site; construction of a 15,000 square foot concrete tilt-up structure with loading dock to house natural gas generators, battery energy storage systems (powerhouse), and “Power hub” hardware; installation of up to four 2.5 MW natural gas engines inside the powerhouse; installation of one or more above-ground ammonia storage tanks (not to exceed 10,000 gallons in total) and aqueous ammonia pumps transferring skid; construction of a chemical containment system designed to ensure that any release of ammonia gas is contained and unable to enter the air or ground outside the powerhouse; and construction of one or more cooling towers and engine stacks that will not exceed 35 feet in height.
- Also, at 162 Bodega Road: asphalt-concrete paving for site access and parking to serve the powerhouse at 162 Bodega Road; construction of minor, ancillary maintenance and storage outbuildings; and installation of downward-cast site lighting and electric service connections. The project proponent will include in its improvements plans security and fencing consistent with the CPUC’s Order 95 Guidelines for safe ground clearances established to protect the public from electric shock. Plans will include a 10-foot-tall wall and fencing around the project site to restrict site access and minimize potential exposure to electric shock hazards. Plans will also include warning signs explaining the potential for electrical shock hazards.

Battery Energy Storage Systems

- At 162 Bodega Road: installation of hybrid battery energy storage systems (BESS), including both flow batteries and Li-ion batteries.³ The flow batteries will be installed outside of the powerhouse in their own area that includes a concrete pad and a chemical containment system to ensure that any release of battery chemicals is quickly containable and unable to enter the ground. The Lithium-ion batteries will be installed in the powerhouse adjacent to the engine generators and will have their own self-contained fire suppression system.

Gen-Tie Between Generation and Distribution Assets (Medium Voltage – 35 kV)

- Along Short Road and Gonzales River Road: digging trenches; installing electric conduit; installing electric conductors and communication fiber options into conduit; installing switching equipment, transformers, and related electric components; filling and compacting trenches; and returning the surface area to its pre-construction state (e.g., repairing any street or roadway pavement that was disturbed). Trenching depths could vary slightly but will be approximately four (4) feet deep and 18 inches to 30 inches wide.

³ Whereas lithium-ion batteries can deliver big amounts of energy in a short period of time (1 to 2 hours), flow batteries have much less power density. That means they are better at delivering a consistent amount of less energy over a longer period of time (up to 10 hours).

Electric Power Substation

- At 162 Bodega Road: construction of a 15,000 square foot electric substation on a concrete pad; and installation of substation components, including conductors, switch gear, transformers, circuit breakers, air switches, and buses.

Sub-Transmission to PG&E Power Grid (Medium Voltage 60 kV)

- Along Bodega Road: digging trenches; installing electric conduit; installing electric conductors and communication fiber options into conduit; installing switching equipment, transformers, and related electric components; filling and compacting trenches; and returning the surface area to its pre-construction state (e.g., repairing any street or roadway pavement that was disturbed). Trenching depths could vary slightly but will be approximately four (4) feet deep and 18 inches to 30 inches wide.
- Along Gonzales River Road, Alta Street, and C Street: boring holes, installing Class 6 or higher wooden utility poles, and installing 60 kV conductors along the line of utility poles. The installed utility poles will extend 40 feet in height and be buried six (6) feet in the ground.
- Installation of electric components in the southwest corner of Centennial Park located at 250 1st Street to establish an interconnection with PG&E's regional power grid.

Power Hub (Command and Control System)

- Installation of the power hub hardware at 162 Bodega Road to include installation of software to the "cloud" that can be accessed from any location via a computer.

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Section III. Environmental Checklist

A. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below will be potentially affected by this project, involving at least one impact that requires mitigation to be reduced to a level of “Less Than Significant,” as indicated by the checklist on the following pages.

X	Aesthetics	--	Agricultural Resources	--	Air Quality
--	Biological Resources	X	Cultural Resources	--	Energy
--	Geology / Soils	X	Hazards & Hazardous Materials	--	Hydrology / Water Quality
--	Land Use / Planning	--	Mineral Resources	X	Noise
--	Population / Housing	--	Public Services	--	Recreation
--	Transportation / Traffic	X	Tribal Resources	--	Utilities / Service Systems
--	Greenhouse Gas Emissions	--	Wildfire	--	Mandatory Findings of Significance

B. ENVIRONMENTAL CHECKLIST

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information and sources cited. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose "sensitive receptors"⁴ to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, Less-Than-Significant with mitigation, or less than significant.

The following checklist has been organized to address potential impacts related to both of the project components. These components include and will hereinafter be referred to as:

- Distribution System; and
- Generation and Storage Facility

For a detailed description of these project components, please refer to Section II, above.

⁴ "Sensitive receptors" include homes, schools, parks, playgrounds, daycare centers, nursing homes, hospitals, churches, libraries, etc.

Aesthetics

ENVIRONMENTAL IMPACTS	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
AESTHETICS. Except as provided in Public Resources Code 21099, will the project:				
a) Have a substantial adverse effect on a scenic vista?				X
b) Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, will the project conflict with applicable zoning and other regulations governing scenic quality?			X	
d) Create a new source of substantial light or glare that will adversely affect day or nighttime views in the area?			X	

a. Will the project have a substantial adverse effect on a scenic vista?

Status: "No Impact"

Explanation: A "scenic vista" is the scenic, relatively extensive view available from a scenic vantage point, scenic overlook, or scenic highway as designated by a state or local plan or policy. There are no scenic vistas in the project area affected by the project. Each of the project components has No Impact in this category of concern.

Sources: 2010 Gonzales General Plan EIR; GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications

b. Will the project substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?

Status: "No Impact"

Explanation: A "scenic resource" is a landscape pattern or feature, either built or natural, that is visually and aesthetically pleasing, and that therefore contributes to and helps define a distinct community or region. The General Plan EIR evaluated scenic resources in the Central Salinas Valley and identified "Highly Sensitive Areas" and Sensitive Areas," which were confined to the ridge lines and foothills of the Gabilan and Santa Lucia Ranges. The project components are not in either of these two locations. Each of the project components has No Impact in this category of concern.

Sources: 2010 Gonzales General Plan EIR; GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications

- c. *Will the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, will the project conflict with applicable zoning and other regulations governing scenic quality?*

Status: “Less-Than-Significant Impact”

Explanation: The existing visual character of the Gonzales Wastewater Treatment Plant is dominated by public utility structures, including wastewater treatment and settlement ponds, pump houses, and miscellaneous structures (including solar panels). The area surrounding the wastewater treatment plant, including the 54 acres immediately adjacent to the existing wastewater treatment facilities that are owned by the City, is currently agricultural land. Very little of this treatment facility can be seen by the public from Gonzales River Road. The existing visual character of the Business Park is dominated by industrial and commercial structures and public infrastructure such as roads and drainage features.

Solar panels will be installed on approximately 20-foot-tall posts/poles at the treatment facility pond area. The Substation and Storage Facility will be installed at the terminus of the future Bodega Road and adjacent to the city’s retention pond and adjacent to the Braga Fresh vegetable processing plant. Refer to Figure 12 and 13. A total 12,280 linear feet of electrical lines with poles will be installed on Short, Gonzales, Alta, and “A” Streets, as well as 140 feet of electrical lines and one new pole in Centennial Park.

As it relates to visual impacts associated with new power poles on Gonzales River Road corridor, power poles are ubiquitous on the landscape and adding additional poles to the edge of this road, Alta Street and “A” Street is not considered to result in a significant change to the environment and does not conflict with applicable zoning and other regulations governing scenic quality of which there are none identified in the Gonzales General Plan. Refer to Figures 6 and 7 for a visual presentation of the power poles. The solar panels at the wastewater plant, although distant and likely to be seen from Gonzales River Road, are not considered to conflict with applicable zoning and other regulations governing scenic quality. Each of the project components has a Less-Than-Significant impact in this category of concern.

Sources: GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications; *Gonzales 2010 General Plan*; Site visit by Matthew Sundt, Community Development Director, February 12, 2020.

d. Will the project create a new source of substantial light or glare that will adversely affect day or nighttime views in the area?

Status: “Less-Than-Significant Impact with Mitigation”

Explanation: The Distribution System by its nature will not create light or glare. Power Generation and Storage Facility will include nighttime security lighting that while similar to lighting on other properties in the Business Park will nonetheless contribute to the gradual degradation of nighttime views in the area. The *Gonzales 2010 General Plan* Implementing Action CC-8.1.8 (Reduce Light Pollution) requires new development to reduce light pollution by designing exterior lighting to be downward cast and hooded. The following mitigation measure will be imposed to ensure that impacts related to light and glare will be reduced to a level that is Less-Than-Significant:

Mitigation Measure 1

All exterior lighting for the Generation and Storage Facility must be designed to provide for operational and security requirements while minimizing adverse effects to other properties in the vicinity. Lighting fixtures shall be downcast and shielded and designed to reflect light away from the surrounding premises and all public rights-of-way. Prior to the issuance of a Building Permit, Bodega shall submit a photometric lighting analysis for review and approval of the Director of Community Development that concludes, and by way of a diagram, illustrates that no more than .01 horizontal lumen foot-candles are allowed to escape the project site extending beyond 15 feet from the project site boundary.

Sources: *Gonzales 2010 General Plan*; GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications

Agriculture and Forestry Resources

ENVIRONMENTAL IMPACTS	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
AGRICULTURE AND FORESTRY RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state’s inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Will the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or Timberland Production (as defined by Government Code section 51104(g))?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
e) Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?				X

a. Will the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

Status: “No Impact”

Explanation: The City of Gonzales is currently in the planning phase to expand the City’s wastewater treatment plant in order to accommodate additional industrial capacity and future residential development in the Sphere of Influence area to the east of the current city limits. The microgrid power generation facilities will be constructed in the expansion footprint area of the wastewater treatment plant – i.e., physically located above portions of the wastewater treatment plant and after said wastewater treatment plant is completed. No other lands will be involved associated with the power generation at this City owned facility.

Associated with this wastewater treatment plant expansion is an EIR that was released by the City for a 45-day public review period ending on August 13, 2021 (SCH# 2020069049 - *City of Gonzales Industrial Wastewater Treatment Facility Project EIR*) and certified by the Gonzales City Council on September 20, 2021. The wastewater treatment plant will be located north of the existing Wastewater Treatment Plant on a 54-acre site owned by the City of Gonzales. The new wastewater treatment plant would have an initial capacity of 1.0 MGD (which could be expanded to address future industrial wastewater flows).

The wastewater treatment plant EIR addresses the loss of agricultural lands and determined that a significant environmental impact would result from the expansion of the wastewater treatment facilities. Mitigation is prescribed in the wastewater treatment plant EIR which includes that for each acre of Important Farmland converted (including Prime Farmland and Farmland of Statewide Importance) the project applicant shall obtain farmland elsewhere at a ratio of 1:1 to be conserved in perpetuity. The Farmland conserved shall be of equal or greater quality, as determined by the best available soil survey information. Regardless of the mitigation measure, the wastewater treatment plant EIR identifies the impact to be “Significant and Unavoidable”. The City Council will need to adopt a Statement of Overriding Considerations for this unavoidable impact. The Microgrid project itself will have no impact.

Aside from the power generation facility at the wastewater facility, the Microgrid project also includes power generation, storage and sub-station facilities in the Business Park. Impacts related to eventual use of the Business Park were addressed in the 2004 Gonzales Agricultural Industrial Business Park EIR that placed 500 acres of adjacent land into an agricultural conservation easement. Nonetheless, this impact was considered a significant and unavoidable impact by the City Council at that time.

There are no project-specific impacts related to the conversion of important farmland that are peculiar to the microgrid project or its site, those impacts have already been identified in the General Plan EIR, the Gonzales Agricultural Industrial Business Park EIR, and, or in the wastewater treatment plant EIR, as noted above. This project will have No Impact in this category of concern.

Sources: “City of Gonzales Industrial Wastewater Treatment Facility Project EIR” (SCH# 2020069049); “Environmental Impact Report, Gonzales Agricultural Industrial Business Park” (SCH# 2004081010); GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications; Agricultural Buffer Easement Deed between Herbert B. Meyer, Trustee and the County of Monterey and the Monterey County Ag Land Trust, February 23, 2011, County of Monterey (Document 2011011002).

b. Will the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

Status: “No Impact”

Explanation: The project components are to be located on land in the expansion area of the Wastewater Treatment Plant or within the Business Park that are zoned for the proposed uses. While land that lies immediately outside the General Plan’s Urban Growth Boundary and adjacent to the project sites are under agricultural easement, the project sites are located within the City of Gonzales Sphere of Influence and Urban Growth Boundary and are not under Williamson Act contract. Furthermore, as stated in the above impact analysis (“a”), there is the IWTP EIR that addresses this impact. Each of the project components has No Impact in this category of concern.

Sources: *Gonzales 2010 General Plan*; Gonzales Zoning Ordinance; GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications

c. Will the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or Timberland Production (as defined by Government Code section 51104(g))?

Status: “No Impact”

Explanation: The project components are to be located on land in the expansion area of the Wastewater Treatment Plant or within the Business Park that are zoned for the proposed uses. There is no forest land zoning in the area, and there is no possibility of conflict with existing zoning for, or cause rezoning of, forest land or timberland, as none exists in the area. Each of the project components has No Impact in this category of concern.

Sources: Gonzales Zoning Ordinance; GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications

d. Will the project result in the loss of forest land or conversion of forest land to non-forest use?

Status: “No Impact”

Explanation: The project components are to be located on land in the expansion area of the Wastewater Treatment Plant or within the Business Park that are zoned for the proposed uses. There is no forest land in the area, and there is no possibility of the project resulting in the loss of forest land or the conversion of forest land to non-forest use. Each of the project components has No Impact in this category of concern.

Sources: Gonzales Zoning Ordinance; GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications

- e. Will the project involve other changes in the existing environment that, due to their location or nature, could result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use?*

Status: “No Impact”

Explanation: As stated in the above impact analysis (“a”), this impact is addressed in the IWTP EIR. Each of the project components has No Impact in this category of concern.

Sources: *Gonzales 2010 General Plan*; GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications

Air Quality

ENVIRONMENTAL IMPACTS	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
AIR QUALITY. Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Will the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?			X	
c) Expose sensitive receptors to substantial pollutant concentrations?			X	
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?				X

This Air Quality analysis is derived from the Gonzales Microgrid Project Air Quality and Greenhouse Gas Emissions Assessment prepared by Dudek dated April 13, 2021, attached herein as Appendix B.

a. Will the project conflict with or obstruct implementation of the applicable air quality plan?

Status: "Less-Than-Significant Impact"

Explanation: As described in the Monterey Bay Air Resources Board CEQA Guidelines (MBARD 2008), project emissions that are not accounted for in the AQMP's emission inventory are considered a significant cumulative impact to regional air quality. However, for construction of a project, construction projects using typical construction equipment (such as dump trucks, scrapers, bulldozers, compactors and front-end loaders) that temporarily emit precursors of O₃ are accounted for in the AQMP emissions inventory (MBARD 2008) and will not have a significant impact. Construction equipment will be used intermittently throughout the day during construction of the generation, storage and distribution.

As identified in Tables 2 through 7 of the Dudek report, the equipment required for construction of the project will be typical and activities will not be unusually intense, and therefore project construction emissions will not result in a significant impact. Furthermore, the project will result in emissions during short-term construction and long-term operations that will not exceed the MBARD thresholds of significance. As such, construction and operation of the project will not conflict with or obstruct implementation of the AQMP and this impact will be Less-than-Significant.

Sources: GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications; Air Quality and Greenhouse Gas (GHG) Emissions Assessment, Dudek, April 13, 2021 (Appendix B).

- b. Will the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?***

Status: “Less-Than-Significant Impact”

Explanation:

Construction Emissions -

Construction of the project will result in the addition of pollutants to the local airshed caused by soil disturbance, fugitive dust emissions, and combustion pollutants from on-site construction equipment and from worker vehicles and off-site vendor truck trips. Construction emissions can vary substantially from day to day, depending on the level of construction related activities and the specific type of operation. Therefore, such emission levels can only be approximately estimated with a corresponding uncertainty in precise ambient air quality impacts.

Criteria air pollutant emissions associated with construction activity were quantified using CalEEMod. Construction emissions were calculated for the estimated worst-case day over the construction period with each phase of construction and reported as the maximum daily emissions estimated during each year of construction (2021-2022)⁵. Table 8 of the attached Dudek (Appendix B) report summarizes the construction emissions and concludes that no thresholds were exceeded related to ROG, NO_x, CO, SO_x, PM₁₀ and PM_{2.5} in any of the construction years. Furthermore, construction-generated emissions would be temporary and would not represent a long-term source of criteria air pollutant emissions.

Operational Emissions -

As shown in Table 9 of the attached Dudek report (Appendix B), the maximum daily operational emissions would not exceed the MBARD operational thresholds for ROG, NO_x, CO, SO_x, PM₁₀, and PM_{2.5}.

For both constructed and operational related impacts, each of the project components will have a Less-Than-Significant Impact in this category of concern.

⁵ The analysis assumed a construction start date of August 2021, which represented at the time of this analysis the earliest date construction would commence.

c. Will the project expose sensitive receptors to substantial pollutant concentrations?

Status: “Less-Than-Significant Impact”

Explanation: “Sensitive receptors” include homes, schools, parks, playgrounds, daycare centers, nursing homes, hospitals, churches, libraries, etc. The nearest sensitive receptor to the IWTP, where most of the power generation is located, are the homes located approximately 7,000 feet to the east of the power generation. As measured from the future sub-Station to be located on Bodega Road and the smaller power generation facility at the Katharine Street retention pond, the nearest sensitive receptors are the same homes on Alta Street at approximately 3,000 feet.

Based on the attached Dudek report (Appendix B), because construction and operation of the project would not result in the emissions of criteria air pollutants that would exceed the applicable MBARD significance thresholds, and because the MBARD thresholds are based on levels that the NCCAB can accommodate without affecting the attainment date for the AAQS and the AAQS are established to protect public health and welfare, it is anticipated that the project (inclusive of generation, storage and distribution) would not result in health effects associated with criteria air pollutants. Because project-generated construction and operational emissions are less than the MBARD thresholds for all pollutants, impacts related to project generated criteria air pollutant emissions are Less-Than-Significant.

Sources: GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications; Air Quality and Greenhouse Gas (GHG) Emissions Assessment, Dudek, April 13, 2021.

d. Will the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Status: “No Impact”

Explanation: In general, the occurrence and severity of potential odor impacts depends on numerous factors. The nature, frequency, and intensity of the source; the wind speeds and direction; and the sensitivity of receiving location each contribute to the intensity of the impact. Although offensive odors seldom cause physical harm, they can be annoying and cause distress among the public and generate citizen complaints. Odors will be generated from vehicles and/or equipment exhaust emissions if they use diesel engines.

Odors produced during construction will be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment, architectural coatings, and asphalt pavement application. Such odors will disperse rapidly from the project site and generally occur at magnitudes that will not affect a substantial number of people because of the distance to sensitive receptors being not

downwind and over one mile to the east, and because wind speeds in the Salinas Valley in the area of Gonzales average 8.2 mph (2010 to present), with average August wind speeds of 9.3 mph and a recent peak at 17.2 mph on August 8, 2021 will quickly disperse odors.⁶

Based on South Coast Air Quality Management District guidance (SCAQMD 1993), land uses, and industrial operations associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The project does not propose and will not engage in any of these activities or other potential activities that will generate operational odors. The use of ammonia, as expressed previously in this report, is associated with cooling the emission control equipment for the internal combustion engines. The project includes construction of a chemical containment system designed to ensure that any release of ammonia gas is contained and unable to enter the air or ground outside the powerhouse. Therefore, the project will result in No Impact.

Sources: GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications; Air Quality and Greenhouse Gas (GHG) Emissions Assessment, Dudek, April 13, 2021 (Appendix B).

⁶ <https://wind.willyweather.com/ca/monterey-county/gonzales.html>. Web site visit 8/19/21

Biological Resources

ENVIRONMENTAL IMPACTS	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
BIOLOGICAL RESOURCES. Will the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				X
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				X
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				X
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

- a. Will the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?***

Status: "No Impact"

Explanation: The Distribution System will involve the installation of poles and diggings of trenches. The Generation and Storage facility will involve the construction of ground-mounted and structure-mounted solar panels and related electrical components (e.g., inverters, transformers, switching gear, etc.) on the grounds of the Wastewater Treatment Plant. Accordingly, in neither case will the Distribution System and Generation and Storage facilities result in a habitat modification that will result in an effect on any special-status species habitat. The only such habitat nearby is the

Salinas River, which is federally designated as a critical habitat for South Central California steelhead (NOAA 2005 and 2006),⁷ but the closest project components are located approximately 1,500 feet from the Salinas River.

Furthermore, significant portions of the Distribution System and the Generation and Storage project components will be located in the Business Park. According to the Gonzales General Plan EIR Figure 4.13.1 (Major Drainages) and Figure 4.13.3 (Biotic Resources), the Business Park is not in proximity to land that is host to a candidate, sensitive, or special-status species. The Gonzales Agricultural Business Park EIR (SCH# 2004081010) also indicates there being no impact on Special Status Species and less-than-significant impacts on riparian or sensitive natural habitat. The only plant community present at the time of the preparation of the *Gonzales Agricultural Business Park EIR* (2004) and currently is row crop agriculture.. The preparer of this Initial Study confirmed in a site visit that the sites contain no wet feature and no significant vegetation.

Therefore, the Distribution System and the Generation and Storage is anticipated to have a No Impact in this category of concern.

Sources: GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications; *2010 Gonzales General Plan EIR*; *Gonzales Agricultural Business Park EIR*, 2004, EMC Planning Group – Biological Resources Section; Site visit by Matthew Sundt, Community Development Director, February 12, 2020.

b. Will the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Status: “No Impact”

Explanation: The construction of the Distribution System includes power lines in trenches, and poles and wires that connect power generation facilities to the Industrial Park, the Industrial District and to the CAISO/PG&E system. The power Generation and Storage and substation component will involve the construction of ground-mounted and structure-mounted solar panels and related electrical components (e.g., inverters, transformers, switching gear, etc.) on the grounds of the Wastewater Treatment Plant. These uses will not be located on land that is considered riparian or aquatic habitat or other sensitive natural community habitat identified in local or regional plans, policies, or CDFW or USFWS regulations. The only such habitat nearby is the Salinas River, which is federally designated as a critical habitat for South central California steelhead (Ibid.). The closest project components are located approximately 1,500 feet from the river.

⁷ Steelhead of the South-Central/Southern California Coast: Population Characterization for Recovery Planning.

Furthermore, the operation and maintenance of the solar panels and transmission and distribution equipment will not generate noise, light, or activity that could otherwise cause significant disruption to the nearby riparian or aquatic habitat. Finally, significant portions of the Distribution System and Generation and Storage will be located in the Business Park. According to the Gonzales General Plan EIR Figure 4.13.1 (Major Drainages) and Figure 4.13.3 (Biotic Resources), the Business Park is in proximity to neither any major water resource nor any significant biotic resource. The *Gonzales Agricultural Business Park EIR* (SCH# 2004081010) also indicates there being no impact on riparian or sensitive natural habitat. The only plant community present at the time of the preparation of the *Gonzales Agricultural Business Park EIR* (2004) and currently is row crop agriculture. Therefore, those parts of the Distribution System and Generation and Storage located in the Business Park will have No Impact in this category of concern.

Sources: GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications; 2010 *Gonzales General Plan EIR*; 2010 *Gonzales General Plan EIR*; *Gonzales Agricultural Business Park EIR*, 2004, EMC Planning Group – Biological Resources Section; Site visit by Matthew Sundt, Community Development Director, February 12, 2020.

- c. ***Will the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?***

Status: “No Impact”

Explanation: Parts of the project Distribution System and Generation and Storage are located at the Wastewater Treatment Plant, which is close to the Salinas River, but these project components will involve no direct removal, filling, hydrological interruption, or other adverse effect on federally protected wetlands. The project will therefore have No Impact in this category of concern.

Furthermore, significant portions of the Distribution System and Generation and Storage will be located in the Business Park. According to the Gonzales General Plan EIR Figure 4.13.1 (Major Drainages) and Figure 4.13.3 (Biotic Resources), the Business Park is not in proximity to a federally protected wetland. Therefore, those parts of the Distribution System and Generation and Storage located in the Business Park will have No Impact in this category of concern.

Sources: GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications; 2010 *Gonzales General Plan EIR*; Site visit by Matthew Sundt, Community Development Director, February 12, 2020.

- d. Will the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?***

Status: “No Impact”

Explanation: The construction of the Distribution System include power lines in trenches, and poles and wires that connect power generation facilities to the Industrial Park, the Industrial District and to the CAISO/PG&E system. Power Generation and Storage will involve the construction of ground-mounted and structure-mounted solar panels and related electrical components (e.g., inverters, transformers, switching gear, etc.) on the grounds of the Wastewater Treatment Plant. The project components will not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites. As indicated in sections (a) through (c) above, the project is not located in or on any riparian or wetland areas, nor will it impact any wildlife habitats. Therefore, those parts of the Distribution System and Generation and Storage located in the Business Park will have No Impact in this category of concern.

Furthermore, significant portions of the Distribution System and Generation and Storage will be located in the Business Park. According to the Gonzales General Plan EIR Figure 4.13.1 (Major Drainages) and Figure 4.13.3 (Biotic Resources), the Business Park is not in proximity to any wildlife corridor or wildlife nursery sites. Therefore, those parts of the Distribution System and Generation and Storage located in the Business Park will have No Impact in this category of concern.

Sources: GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications; 2010 Gonzales General Plan EIR

- e. Will the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?***

Status: “No Impact”

Explanation: None of the project components will have a possibility of conflicting with any local policies or ordinances protecting biological resources. The City of Gonzales does not have a tree protection ordinance or other ordinance protecting biological resources that is applicable to this project or the project site. In any event, the preparer of this Initial Study confirmed in a site visit that the proposed sites contain no significant vegetation or other biological resource. Each of the project components will have No Impact in this category of concern.

Sources: GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications; 2010 Gonzales General Plan EIR; Site visit by Matthew Sundt, Community Development Director, February 12, 2020., Community Development Director.

f. Will the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Status: “No Impact”

Explanation: None of the project components facilities will have a possibility of conflicting with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan as the General Plan does not identify any such plans relevant to the City and environs. There are no adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, regional, or state habitat conservation plans in the project vicinity. Therefore, each of the project components will have No Impact in this category of concern.

Sources: GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications; 2010 Gonzales General Plan EIR); Site visit by Matthew Sundt, Community Development Director, February 12, 2020, Community Development Director, February 12, 2020.

Cultural Resources

ENVIRONMENTAL IMPACTS	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
CULTURAL RESOURCES. Will the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to section 15064.5?				X
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to section 15064.5?		X		
c) Disturb any human remains, including those interred outside of formal cemeteries?		X		

a. Will the project cause a substantial adverse change in the significance of a historical resource pursuant to section 15064.5?

Status: “No Impact”

Explanation: The project components will include public utility uses constructed either in the expansion footprint of the Gonzales Wastewater Treatment Plant, within the Business Park, or along rights-of-way connecting the two areas, none of which contain any identified historical resources. The project therefore has limited potential to directly or indirectly impact the significance of a historical resource.

In 2017, the City of Gonzales undertook a cultural resource analysis for a project that was previously proposed for the project sites at 122, 142, and 162 Bodega Road (i.e., the proposed sites in the Business Park where parts of the Distribution System and Generation and Storage will be constructed. According to the 2017 report⁸ (attached as Appendix A), the cultural resource expert conducted a record search of an area within a ¼-mile radius centered on the project sites through the Northwest Information Center. That search indicated that no pre-historic or historic sites exist within the vicinity of the project sites. The expert also conducted a physical inspection of the project site and found no indicators of historic or prehistoric cultural activity. As for the Wastewater Treatment Plant sites, these are already highly disturbed with no indicators of historic or prehistoric cultural activity. Each proposed component of the project will have No Impact in this category of concern.

Sources: “Preliminary Cultural Resources Reconnaissance” (Morley, 2017); GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications; 2010 Gonzales General Plan EIR

⁸ Susan Morley, M.A., “Preliminary Cultural Resources Reconnaissance, Assessor Parcel Number APNs 223-081-017, 018, and 019 in the City of Gonzales, County of Monterey.”

b. Will the project cause a substantial adverse change in the significance of an archaeological resource pursuant to section 15064.5?

Status: “Less-Than-Significant Impact with Mitigation”

Explanation: According to same report referenced in section “a” above, the record search conducted by the cultural resource expert did not indicate the presence of any archaeological resources. Nonetheless, there could be undiscovered archaeological resources that could be uncovered during construction. This is a potentially significant impact that will be made Less-Than-Significant with the following mitigation measure from the Gonzales Agricultural Industrial Business Park EIR, which will apply to the entire project area:

Mitigation Measure 2

To reduce potential impacts on archaeological resources during construction, the following language shall be included on any permits issued for the project sites, including, but not limited to, grading and building permits for future development.

- a. In the event that significant archaeological remains are uncovered during excavation and/or grading, all work shall stop in the area of the subject property until an appropriate data recovery program can be developed and implemented. (From the Gonzales Agricultural Industrial Business Park EIR: Mitigation Measure 7)*

- b. In the event of an accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the City shall ensure that the following language is included in all permits. If human remains are found during construction, there shall be no further excavation or disturbance of the site, or any nearby area reasonably suspected to overlie adjacent human remains until a coroner is contacted to determine that no investigation of the cause of death is required. If the coroner determines the remains to be Native American, the coroner shall contact the Native American Heritage Commission within 24 hours. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descendent (MLD) from the deceased Native American. The MLD may then make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and associated grave goods as provided in Public Resources Code Section 5097.98. The landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further disturbance if: a) the Native American Heritage Commission is unable to identify a MLD or the MLD failed to make a recommendation within 24 hours after being notified by the commission; b) the descendent identified fails to make a recommendation; or c) the landowner or his authorized representative rejects the recommendation of the descendent,*

and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner. (From the Gonzales Agricultural Industrial Business Park EIR: Mitigation Measure 8)

- c. *Before any earth moving activities occur the contractor(s) and sub-contractors shall participate in a program administered by an archaeologist who shall explain what archaeological resources look like that may be found in the area so that workers will know what to look for. Said program will require a letter from the archaeologist explaining what was taught, where it was taught, when it was taught, and who participated. This mitigation is required and is applicable to all personnel who are drilling, digging, scraping, trenching, and otherwise working with and in the ground. Said letter shall be submitted to the Community Development Department Director prior to issuance of demolition or construction permits.*

Sources: “Preliminary Cultural Resources Reconnaissance” (Morley, 2017); “Environmental Impact Report, Gonzales Agricultural Industrial Business Park” (SCH# 2004081010); GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications.

- c. ***Will the project disturb any human remains, including those interred outside of formal cemeteries?***

Status: “Less-Than-Significant with Mitigation”

Explanation: According to the Gonzales Agricultural Industrial Business Park EIR, there are no known human remains interred in or adjacent to the Business Park. As for the Wastewater Treatment Plant sites, these are already highly disturbed with no indicators of human remains. Nonetheless, there is a possibility that human remains could be uncovered during grading and site preparation of the portions of the project located in the Wastewater Treatment Plant. This is a potential significant impact that will be made Less-Than-Significant with implementation of Mitigation Measure 2.

Mitigation Measure

Refer to Mitigation Measure 2.

Sources: “Environmental Impact Report, Gonzales Agricultural Industrial Business Park” (SCH# 2004081010); GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications

Energy

ENVIRONMENTAL IMPACTS	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
Energy. Will the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			X	
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?				X

a. Will the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Status: Less-Than-Significant Impact”

Explanation: Since the project involves generation and distribution of energy – and due to the fact that it will generate energy for its own operation , any potential impact due to wasteful or inefficient energy consumption are generally limited to the construction phase. Indirect energy consumption would be associated with the energy required to manufacture the project components, but it is reasonable to assume that manufacturers of building materials employ reasonable energy conservation practices in the interest of minimizing the cost of doing business. Regardless, neither GMEU nor Bodega Microgrid has control over or the ability to influence energy resource use by the manufacturers of the materials, and this Initial Study therefore does not speculate about or evaluate indirect energy use.

Direct energy use includes consumption of petroleum fuels for operation of construction vehicles, delivery trucks, and workers traveling to and from the project site, as well as electricity for construction equipment and water conveyance. Construction of the project is expected to last 18 to 24 months and will involve 10 to 15 workers and minimal construction equipment because much of the project involves installation of equipment. So the estimated fuel consumption for construction of the project is very low and would be temporary in nature. Therefore, the construction-related energy use would not result in wasteful, inefficient, or unnecessary consumption of energy and this would result in a Less-Than-Significant impact.

b. Will the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Status: “No Impact”

Explanation: As discussed above, this project would not cause new energy impacts. Further, the project was also expressly discussed in the City of Gonzales Climate Action Plan (“CAP”; see, e.g. Measure P-2.3 in the CAP), which is intended to help reduce energy consumption to become a more sustainable community and meet statewide energy reduction goals. This project is an integral part of the CAP’s implementation strategy as it would reduce the demand for conventional electrical power. Accordingly, the project does not conflict with or obstruct a state or local plan for renewable energy or energy efficiency and therefore has No Impact.

Project Consistency with the City’s Climate Action Plan (CAP)

The City adopted a Climate Action Plan in 2013 and updated said plan in 2018, which is a qualified GHG emissions reduction plan under CEQA. In order to evaluate whether or not the project is consistent with the CAP, Table 13 in the attached Dudek report (Appendix B) outlines the CAP GHG reduction measures and the project’s consistency with each measure.

As discussed in the CAP, Gonzales suffers from the lack of electrical grid capacity. PG&E maintains 115 kilovolt (kV) transmission lines from San Luis Obispo north to Soledad; it also maintains 115 kV transmission lines from Moss Landing south to Salinas. Between Salinas and King City, however, service is limited by 60 kV transmission lines. According to a preliminary engineering study plan prepared by PG&E and published in 2019, PG&E will need up to three years to provide service to the newest planned tenants at the Business Park. It is not known at this time when PG&E will commence to work on this 115 kV line extension.

Under CAP Chapter VII, implementation of the Gonzales Renewables Program includes the development of one or more electrical power microgrids to serve new industrial users in Gonzales that are affected by the PG&E grid capacity issue. Such a program will reduce the demand for conventional electrical power and, over time, integrate into a next generation regional electrical power grid. The project directly serves the implementation of an electrical power microgrid to serve new industrial users in the Business Park and therefore, is consistent with the CAP and fulfills a key goal of the CAP. Additional CAP consistency is discussed below.

As such, the project will meet and exceed the 2024 State's Renewable Portfolio Standard⁹ (RPS) target of 44% renewables by December 31, 2024. While a longer-term RPS milestone, the project will also meet the 2027 RPS target of 52% renewables by December 31, 2027, demonstrating substantial progress towards continuing to meet future RPS targets. Therefore, the project will not conflict with the state's RPS program.

Based on the considerations outlined above and discussed in detail in the attached Dudek report, the project will not generate GHGs, either directly or indirectly, that may have a significant impact on the environment, or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, and therefore will have No Impacts in this category of concern.

Sources: GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications; Air Quality and Greenhouse Gas (GHG) Emissions Assessment, Dudek, April 13, 2021.

⁹ The Renewable Portfolio Standard, or RPS, was established in 2002 by Senate Bill 1078 and was expanded via multiple subsequent senate bills, with the latest being SB 100. The key goal of the RPS program is to increase renewable energy generation from qualified utilities overtime.

Geology and Soils

ENVIRONMENTAL IMPACTS	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
GEOLGY AND SOILS. Will the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				X
ii. Strong seismic ground shaking?			X	
iii. Seismic-related ground failure, including liquefaction?			X	
iv. Landslides?				X
b) Result in substantial soil erosion or the loss of topsoil?			X	
c) Be located on a geologic unit or soil that is unstable, or that will become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			X	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?			X	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				X
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X

- a. (i) Will the project create exposure to rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?***

Status: "No Impact"

Explanation: According to the California Department of Conservation, the project components are not located in an Alquist-Priolo Fault Hazard Zone.¹⁰ Therefore, is No Impact in this category of concern.

Sources: GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications; "2010 Gonzales General Plan EIR"; California Department of Conservation:

<https://maps.conservation.ca.gov/cgs/EQZApp/app/>

¹⁰ See <https://maps.conservation.ca.gov/cgs/EQZApp/app/> for a map of earthquake hazard zones.

(ii) Will the project create exposure to strong seismic ground shaking?

Status: “Less-Than-Significant Impact”

Explanation: According to the General Plan EIR Figure 4.16.1 (Seismic Hazards), the project components are located in a “High Seismic Hazard” area. The California Building Standards Code requires building construction designed to withstand most earthquake occurrences, and in order for the project to obtain building permits from the City of Gonzales, the building plans must comply with all applicable building codes. Each of the project components will have a Less-Than-Significant impact in this category of concern.

Sources: GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications; “2010 Gonzales General Plan EIR”

(iii) Will the project create exposure to seismic-related ground failure, including liquefaction?

Status: “Less-Than-Significant Impact”

Explanation: According to the General Plan EIR Figure 4.16.2 (Liquefaction Hazards), the project components are located in areas that have moderate and high liquefaction potential. The California Building Standards Code requires building construction designed to withstand most earthquake-related impacts, including liquefaction, and in order for the project to obtain approved building permits from the City of Gonzales, the building plans must comply with all applicable building codes.

To support the effective application of building codes, the *Gonzales 2010 General Plan* Implementing Action HS-1.1.5 (Geotechnical Investigations) requires all proposed applications to include a geotechnical investigation where development is proposed in areas with moderate or high seismic risks or where soil stability may be an issue. Accordingly, the City of Gonzales includes the requirement for a geotechnical investigation. Each of the project components will have a Less-Than-Significant impact in this category of concern.

Sources: GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications; 2010 Gonzales General Plan EIR; *Gonzales 2010 General Plan*

(iv) Will the project create exposure to landslides?

Status: “No Impact”

Explanation: The project components have no possibility of being affected by landslides. The project area is relatively flat with no potential for landslide. Each of the project components will have No Impact in this category of concern.

Sources: GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications; Site visit by Matthew Sundt, Community Development Director, February 12, 2020.

b. Will the project result in substantial soil erosion or the loss of topsoil?

Status: “Less-Than-Significant Impact”

Explanation: According to General Plan EIR Figure 4.16.3 (Erosion Potential), the project components are located in an area with Low Erosion Potential. The potential is low that any of the project components will result in substantial soil erosion is low. Aside from the Salinas River corridor itself, which will be unaffected by any of the project components, there are no drainage courses in the vicinity and the various sites are topographically flat. Finally, the project sites will be the subject of drainage and erosion control plans approved as part of the Stormwater Pollution Prevention Plans (SWPP) for all disturbed sites. The SWPP is a standard condition of approval for all development projects in Gonzales. Each of the project components will have a Less-Than-Significant impact in this category of concern.

Sources: GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications; 2010 Gonzales General Plan EIR

c. Will the project be located on a geologic unit or soil that is unstable, or that will become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Status: “Less-Than-Significant Impact”

Explanation: According to the General Plan EIR, lateral spreading can occur in weaker soils on slopes and adjacent to open channels that are subject to strong ground shaking during earthquakes. The project component sites and the surrounding sites are topographically flat with no major drainages, so the potential for lateral spreading is very low.

As reported above, according to General Plan EIR Figure 4.16.2 (Liquefaction Hazards), the proposed facilities are located in a “Moderate Liquefaction Potential” area. The California Building Standards Code requires building construction designed to withstand most earthquake-related impacts, including liquefaction, and in order for the project to obtain approved building permits from the City of Gonzales, the building plans must comply with all applicable building codes. The City of Gonzales also includes the requirement for a geotechnical investigation as a standard condition of approval for Conditional Use Permits in the Business Park and at the wastewater treatment plant which must confirm that the project will not have landslide or liquefaction impacts. Therefore, the project will have a Less-Than-Significant impact in this category of concern.

Sources: GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications; 2010 Gonzales General Plan EIR; Site visit by Matthew Sundt, Community Development Director, February 12, 2020.

d. Will the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Status: "Less-Than-Significant Impact"

Explanation: According to General Plan EIR Figure 4.16.4 (Soil Shrink/Swell Potential), the project components are located in an area with High Soil Shrink/Swell Potential. The Gonzales General Plan Implementing Action HS-1.1.4 (Soils Analysis) requires all proposed applications to include a soils analysis where development is proposed in areas with moderate or high seismic risks or where soil stability may be an issue. The City of Gonzales includes the requirement for a geotechnical investigation as a standard condition of approval on all Conditional Use Permits which must confirm that the project will not be located on expansive soil or otherwise create risks to life or property. Each of the project components will have a Less-Than-Significant impact in this category of concern.

Sources: GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications; 2010 Gonzales General Plan EIR; *Gonzales 2010 General Plan*

e. Will the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

Status: "No Impact"

Explanation: The project components have no use for septic tanks or alternative wastewater disposal systems that will require soils adequate to support such systems. Each of the project components will have No Impact in this category of concern.

Sources: GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications

f. Will the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Status: "No Impact"

Explanation: There are no known unique geologic features associated with the Distribution and Generation and Storage project components. Furthermore, there is no physical or written evidence of any unique paleontological resource/s in the project site.

Sources: 2010 Gonzales General Plan EIR; *Gonzales 2010 General Plan*; Susan Morley, M.A., "Preliminary Cultural Resources Reconnaissance, Assessor Parcel Number APNs 223-081-017, 018, and 019 in the City of Gonzales, County of Monterey; Site visit by Matthew Sundt, Community Development Director, February 12, 2020.

Greenhouse Gas Emissions

ENVIRONMENTAL IMPACTS	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
GREENHOUSE GAS EMISSIONS. Will the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?			X	

This Greenhouse Gas section is based on the Gonzales Microgrid Project Air Quality and Greenhouse Gas Emissions Assessment prepared by Dudek dated April 13, 2021. Refer to Appendix B.

a. Will the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Status: GHG emission is not applicable to Construction

Explanation: *Construction Emissions*

Construction of the project will result in Greenhouse Gas (GHG) emissions, which are primarily associated with use of off-road construction equipment, vendor and haul trucks, and worker vehicles. CalEEMod was used to calculate the annual GHG emissions. A detailed depiction of the construction schedule—including information regarding phasing, equipment utilized during each phase, trucks, and worker vehicles—is included in the Dudek report.

On-site sources of GHG emissions include off-road equipment and off-site sources including haul trucks, vendor trucks and worker vehicles. Table 4 below presents construction emissions for the project from on-site and off-site emission sources:

Table 4. Estimated Annual Construction Greenhouse Gas Emissions

Year	CO ₂	CH ₄	N ₂ O	CO ₂ e
	Metric Tons per Year			
2021	534.73	0.14	0.00	538.23
2022	181.61	0.05	0.00	182.91
Total	716.34	0.19	0.00	721.14

Notes: CO₂ = carbon dioxide; CH₄ = methane; N₂O = nitrous oxide; CO₂e = carbon dioxide equivalent.
See Attachment A for complete results.

As shown in Table 4, the estimated total GHG emissions during project construction will be approximately 721 MT CO₂e over the construction period.

Estimated project-generated construction emissions amortized over 30 years will be approximately 24 MT CO₂e per year. As with project-generated construction air pollutant emissions, GHG emissions generated during construction of the project will be short-term in nature, lasting only for the duration of the construction period, and will not represent a long-term source of GHG emissions. Therefore, there is no separate GHG threshold for construction.

Status: “Less-Than-Significant”

Explanation: *Operational Emissions*

Operation of the project will generate GHG emissions through motor vehicle trips; landscape maintenance equipment operation (area source); energy use (natural gas and electricity); solid waste disposal; water supply, treatment, and distribution and wastewater treatment; and stationary natural gas fire engines. Operation of the solar energy facilities, a renewable energy source, produces no GHG emissions. CalEEMod and spreadsheet calculations were used to calculate the annual GHG emissions based on operational assumptions. The estimated operational project-generated GHG emissions from area sources, energy usage, motor vehicles, solid waste generation, water usage and wastewater generation, and the natural gas fired IC engines (stationary sources), are shown in Table 5 (Table 15 in the attached Dudek report):

Table 5. Estimated Annual Operational Greenhouse Gas Emissions

Emission Source	CO ₂	CH ₄	N ₂ O	CO ₂ e
	Metric Tons per Year			
Area	<0.01	0.00	0.000	<0.01
Energy	34.19	<0.01	<0.01	34.45
Mobile	34.82	<0.01	0.00	34.86
Solid waste	3.78	0.22	0.00	9.35
Water supply and wastewater	3.12	0.11	<0.01	6.76
Stationary	9,799.32	4.62	5.51	9,809.45
Total	9,875.23	4.95	5.51	9,894.87
<i>Amortized construction emissions</i>				<i>24.04</i>
Total operational + amortized construction GHGs				9,918.91
<i>MBARD GHG Threshold</i>				<i>10,000</i>
Threshold Exceeded?				No

Notes:

- GHG = greenhouse gas; CO₂ = carbon dioxide; CH₄ = methane; N₂O = nitrous oxide; CO₂e = carbon dioxide equivalent; <0.01 = = reported value less than 0.01.
- See Attachment A for complete results.
- The project emissions reflect operational year 2023.

As shown in Table 5, estimated annual project-generated GHG emissions will be approximately 9,914 MT CO₂e per year as a result of project operation; with amortized construction emissions, total project emissions will be approximately 9,938 MT CO₂e per year. Annual operational GHG emissions with amortized construction emissions will not exceed the MBARD threshold of 10,000 MT CO₂e per year. *Operational Emissions* are determined to have a Less-Than-Significant impact in this category of concern.

b. Will the project conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

Status: “Less-Than-Significant”

Explanation:

The state’s Renewable Portfolio Standard (RPS) program was established in 2002 (SB 1078) and was expanded via multiple senate bills, with the latest being SB 100. The key goal of the RPS program is to increase renewable energy generation from qualified utilities overtime. Because the project’s buildout year is assumed to be 2023, the applicable near-term RPS milestones are the following:

- 33% renewables by December 31, 2020 (SB X1-2)
- 44% renewables by December 31, 2024 (SB 100)

The project will generate electricity through solar supply and natural gas engine supply. Based on the best available information at this time, it is estimated that the project’s electricity supply breakdown will be as follows:

- Solar Supply: 39,960,600 kWhr
- Engine Supply: 22,600,000kWhr
- Total Microgrid Demand/Supply: 62,560,600 kWhr

Based on the above electricity supply breakdown, the percent of renewables and non-renewable energy sources is estimated to be as follows:

- Renewables: 64%
- Non-Renewables: 36%

As such, the project will meet and exceed the 2024 RPS target of 44% renewables by December 31, 2024. While a longer-term RPS milestone, the project will also meet the 2027 RPS target of 52% renewables by December 31, 2027, demonstrating substantial progress towards continuing to meet future RPS targets. Therefore, the project will not conflict with the state's RPS program.

Further, the City adopted its CAP in 2018, which is a qualified GHG emissions reduction plan under CEQA. In order to evaluate whether or not the project is consistent with the CAP, Table 6 outlines the CAP GHG reduction measures and the project's consistency with each measure.

As discussed in the CAP, Gonzales suffers from the lack of electrical grid capacity. PG&E maintains 115 kilovolt (kV) transmission lines from San Luis Obispo north to Soledad; it also maintains 115 kV transmission lines from Moss Landing south to Salinas. Between Salinas and King City, however, service is limited by 69 kV transmission lines. According to a preliminary engineering study plan prepared by PG&E and published in 2019, PG&E will need up to three years to provide service to the newest planned tenants at the Business Park.

Under CAP Chapter VII, implementation of the Gonzales Renewables Program includes the development of one or more electrical power microgrids to serve new industrial users in the Business Park that are affected by the PG&E grid capacity issue. Such a program will reduce the demand for conventional electrical power grid expansion and, over time, integrate into a next generation regional electrical power grid. The project directly serves the implementation of an electrical power microgrid to serve new industrial users in the Business Park and is therefore consistent with the CAP and fulfills a key goal of the CAP. Additional CAP consistency is discussed below.

As demonstrated in Table 6, the project will be consistent with the applicable strategies and measures in the City CAP. In addition, since the City's local GHG reduction targets contained in the CAP are consistent with the long-term GHG reduction goals of Executive Order (EO) S-3-05, EO B-30-15, Assembly Bill (AB) 32, and Senate Bill (SB) 32, the project will also be consistent with these statewide GHG reduction goals. Therefore, the proposed project's GHG contribution will not be cumulatively considerable and is Less-than-Significant.

Based on the considerations outlined above, the project will not generate GHGs, either directly or indirectly, that may have a significant impact on the environment, or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, and potential impacts will be Less-than-Significant.

Sources: GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications; Air Quality and Greenhouse Gas (GHG) Emissions Assessment, Dudek, April 13, 2021.

Table 6. Project Consistency with City of Gonzales Climate Action Plan

CAP Measure	Measure Number	Project Consistency
Commercial and Industrial Emissions		
Gonzales Renewables Program	P-2.3	Consistent. The project includes 45 megawatts (MW) of solar PV electric power generation.
Transportation Emission Reduction Measures		
Gonzales/MBCP Electric Vehicle (EV) Program	P-3.1	No conflict. The project would not preclude the City and MBCP from developing a program aimed to introduce 600 new electric vehicles (EVs) into the Gonzales market. The project would not preclude the City from implementing this measure.
Solid Waste Emission Reduction Measures		
Waste Diversion (75% Diversion)	P-4.1	Consistent. The project would comply with all City and state regulations (including AB 341) related to solid waste generation, storage, and disposal.
Government Operations Emissions Reduction Measures		
MBCP 100% Carbon-Free Power	P-5.1	No conflict. The project does not prevent the City from obtaining 100% Carbon-free power for Government operations. The project would not preclude the City from implementing this measure.

Source: City of Gonzales 2018.

Notes: MBCP = Monterey Bay Community Power; EV = electric vehicle; AB = assembly bill.

Hazards and Hazardous Materials

ENVIRONMENTAL IMPACTS	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
HAZARDS AND HAZARDOUS MATERIALS. Will the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?		X		
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, will it create a significant hazard to the public or the environment?				X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, will the project result in a safety hazard or excessive noise for people residing or working in the project area?				X
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
g) Expose people or structures either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?				X

a. Will the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Status: "Less-Than-Significant Impact"

Explanation: At typical construction sites, onsite materials that could be considered hazardous include fuels, motor oil, grease, various lubricants, solvents, soldering equipment, and glues. Fuel replenishment will be required daily for most of the heavy equipment. During on-going operations, hazardous materials will be present, including materials used in flow batteries and the use of lithium-ion batteries and the substation and distribution transformers.

Each of the project components will be required to obtain a Hazardous Materials Permit from the County of Monterey Health Department (Environmental Health). These permits will ensure that each applicant handles and stores all hazardous materials in accordance with Federal and State applicable codes, regulations, and standard control methods. In addition, current engineering designs for

containment and proven best management practices and standards of care will minimize any potential release of hazardous waste to within the project boundary. Given the requirement for a Hazardous Materials Permit, each of the project components will have a Less-Than-Significant impact in this category of concern.

Sources: GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications; County of Monterey Health Department (Environmental Health)

<https://www.co.monterey.ca.us/government/departments-a-h/health/environmental-health/hazardous-materials-management/frequently-asked-questions>

b. Will the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Status: “Less-Than-Significant Impact with Mitigation”

Explanation: Each of the project components will include equipment and uses that if involved in upset or accident conditions could release hazardous materials into the environment. Although an upset or accident could occur, it is not reasonably foreseeable that there would be an “upset or accident”. Each of these is described below:

Distribution System

This project component will include a power transmission substation (also known as “substation”) and related electric distribution equipment. The proposed substation will include transformers that will use mineral oil used as a coolant (the mineral oil that will be used at the substation will not contain polycarbonated biphenyls (PCB)). In the unlikely event of a leak, the substation will be equipped with a retention basin that will be of sufficient size to contain all of the transformer coolant liquid from the transformer, as well as 10 percent of additional space to allow for rainwater.

Generation and Storage Facility

This project component involves the construction and operation of an electric power generation facility that includes gas turbines, power storage, and transmission system. The electric power generation and storage system will include the following components that have the potential to involve hazardous materials. Each of these are discussed in detail below.

1. The generation of electric power using natural gas engines (housed in one or more engine rooms);
2. The storage of electric power using battery energy storage systems; and
3. The operation of an electric power transmission substation with the capacity to export electric power to the PG&E regional power grid.

Natural Gas Engines

The microgrid system will use natural gas engines which will use natural gas from the PG&E regional natural gas line that runs through the Gonzales Agricultural Industrial Business Park and parallel to the Union Pacific Railroad right-of-way. Natural gas is a combustible gas, the transport and use of which can pose the danger of fire, explosion, and/or asphyxiation.

Battery Energy Storage Systems

The project will use two types of battery energy storage systems: 1) lithium-Ion batteries, and 2) flow batteries. Refer to Figure 13 for the Substation with Power Storage and Gas Power Facilities Schematic. This Figure shows the location of gas turbines, the substation, battery storage, etc. Impacts associated with lithium-ion batteries include electric shock, toxicity/corrosiveness, fire/deflagration, and stranded energy.¹¹ Damaged batteries represent the potential for a significant hazard due to the inability to safely discharge the stored energy in the damaged cells. In the event of fire, lithium-ion batteries may generate toxic gas fumes from the combustion of hydrocarbons, plastics, or acidic electrolytes. When lithium-ion cells are exposed to temperatures over 80C (176F), they can generate heat at a faster rate than they are able to dissipate it, presenting a thermal runaway risk. This can occur from a variety of abuse modes including thermal abuse, mechanical abuse, or manufacturing defects. Thermal runaway fires can produce temperatures above 2,000° F while forcefully venting vaporized flammable and toxic electrolyte gases. Deflagration hazards may be present in confined or enclosed spaces when flammable gasses, which are produced in great quantities, reach both the explosive range and auto-ignition temperatures, especially since ignition sources also exist due to the electrical nature of the components.

Impacts associated with flow batteries include corrosion and release of toxic liquids into the ground. While lithium-ion batteries store energy in solid electrode material like metal, flow batteries store energy in electrolyte liquids. Most conventional flow batteries use two electrolyte liquids: one with a negatively charged cathode, and one with a positively charged anode. While not flammable, the electrolyte in flow battery systems is corrosive and toxic. It is typically comprised of a sulfuric-acid based solution similar to common automotive lead-acid batteries, except that unlike traditional lead-acid batteries, flow battery electrolytes do not include lead. Nonetheless, electrolytes can be a source of toxicity. For example, a typical Vanadium Redox flow battery electrolyte is 15% vanadium, 25% sulfuric acid, 60% water (by volume). Release of such flow battery electrolytes into the ground could contaminate ground water supplies or pose above ground health hazards due to off-gassing or direct exposure to people.

¹¹ Stranded energy – defined as the energy remaining in a cell after efforts to safely discharge the stored energy in damaged lithium-ion cells. First responders are aware of potential accidents/incidents related to these batteries and have developed tactics and strategies to deal with them.

Flow battery systems do not represent the same fire or deflagration risk as lithium-ion batteries because the aqueous electrolyte is not flammable and because the shutdown of system pumps causes the electrolyte to cease charging, thus reducing the chance of accidental H₂ generation.

Transmission Substation

The project will include a power transmission substation and related electric distribution equipment. The proposed substation will include transformers that will use mineral oil used as a coolant (the mineral oil that will be used at the substation will not contain polycarbonated biphenyls (PCB)). The substation will be equipped with a retention basin that will be sufficiently sized to contain all of the transformer coolant liquid from the transformer, as well as 10 percent of additional space to allow for rainwater.

Each of the project components will be required to obtain a Hazardous Materials Permit from the County of Monterey Health Department (Environmental Health) as a condition of approval and will describe the use and storage methods for hazardous materials related to the project component. This will include design features and best management practices (BMPs) to minimize spill and leak risks associated with use, handling, and storage of hazardous materials at the respective project sites consistent with applicable regulations. Disposal of any hazardous waste will be achieved by the transfer of the materials to a disposal facility authorized to accept such materials. Also, onsite employees will be trained to identify and handle hazardous materials and hazardous wastes. The Hazardous Materials Permits will also address measures to minimize the potential for leaks and spills of hazardous materials during construction, including the proper handling and disposal of materials.

There is a potential for fire associated with the operation of lithium-ion battery energy storage systems (Generation and Storage Facility only). Although this is a potentially significant impact, the inclusion of certain fire safety design features will avoid impacts associated with fires or explosions. Such fire-suppression systems are designed by a certified fire protection engineer and installed by a fire protection system contractor licensed in California and in accordance with all relevant building and fire codes in effect at the time of building permit submission. The Gonzales Fire Department shall inspect the fire monitoring and fire-suppression systems annually and keep records of such inspections in accordance with standard fire department practices.

The lithium-ion battery also has the potential to release hazardous materials at the end of its useful life. However, safety measures and protocols requiring safe decommissioning of the battery, which is standard procedure in the industry, will be mandated by the County of Monterey Health Department (Environmental Health) and will reduce the potential impact to a level of Less-Than-Significant. The project must therefore comply with the following mitigation measure:

Mitigation Measure 3

Bodega Microgrid will include in its Hazardous Materials Permit application to the County of Monterey Health Department (Environmental Health) proposed measures to safely decommission battery energy storage systems at the end of their useful life. The County of Monterey Health Department (Environmental Health) shall include such measures as it sees fit in its issued permit to ensure that the future decommissioning of batteries is monitored and controlled to ensure the safe handling of hazardous battery materials/substances. Prior to City's issuance of a Building Permit, Bodega Microgrid shall submit to the Gonzales Fire Department verification that the County reviewed and approved the Hazardous Materials Permit.

Mitigation Measure 4

- (a) *Bodega Microgrid will include as part of the Generation and Storage Facility plans for a fire suppression system capable for handling fire caused by lithium-ion battery energy storage systems. Prior to issuing a Building Permit, Bodega Microgrid shall submit to the Gonzales Fire Department plans for the fire suppression system and that these plans will have been reviewed and approved by the Gonzales Fire Department.*
- (b) *The Gonzales Fire Department shall inspect the fire monitoring and fire-suppression systems annually and keep records of such inspections in accordance with standard fire department practices.*

Sources: GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications

- c. Will the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?**

Status: "No Impact"

Explanation: The Generation and Storage Facility will include battery storage, gas engines to create electrical energy and an electrical substation to be located in the west side of the Gonzales Agricultural Industrial Business Park. These facilities are approximately 4,000 linear feet from the nearest school and there are no proposed schools to be located within this distance.

None of the project components are located within one-quarter mile of a school. Therefore, they will have No Impact in this category of concern.

Sources: GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications; *Gonzales 2010 General Plan*;

- d. Will the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, will it create a significant hazard to the public or the environment?**

Status: “No Impact”

Explanation: According to the California Department of Toxic Substances Control’s List of Hazardous Waste and Substances sites (EnviroStor database), there are no hazardous materials sites in Gonzales. Each of the project components will have No Impact in this category of concern.

Sources: California Department of Toxic Substances Control
(http://www.dtsc.ca.gov/SiteCleanup/Cortese_List.cfm. Web site visited 8/19/21)

- e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, will the project result in a safety hazard for people residing or working in the project area?**

Status: “No Impact”

Explanation: According to Google Earth, the closest public use airport is the Salinas Airport located approximately 14 miles north and west of the City of Gonzales. None of the project components are on site that are within an airport land use plan area or within two miles of a public use airport. Each of the project components will have No Impact in this category of concern.

Sources: Google Earth

- f. Will the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

Status: “Less-Than-Significant Impact”

Explanation: According to the Gonzales 2010 General Plan, Gonzales River Road is a designated emergency evacuation route. Both the wastewater treatment plant and the Business Park are located north of Gonzales River Road. The Distribution System will use Gonzales River Road right-of-way. Trenching and the installation of power poles along Gonzales River Road during the construction phase will temporarily reduce road capacity and could temporarily physically interfere with the Gonzales Evacuation Plan. This impact will be reduced to a less-than-significant level through Monterey County’s encroachment permit process, which requires as a matter of standard practice that traffic control measures (e.g. lane narrowing/closure and use of traffic control personnel) be implemented to ensure that traffic flows smoothly through the construction areas. Due to the implementation of standard traffic control measures by Monterey County and due also to the limited duration of the period during which trenching will occur along Gonzales River Road, this component of the project will result in a Less-Than-Significant impact in this category of concern.

The Distribution System and Generation and Storage Facility will add negligible amounts of traffic to Gonzales River Road during construction and associated with the ongoing operations related to power generation and the substation. Traffic will not result in a situation where traffic will exceed roadway capacity or otherwise significantly hinder motorists on a daily basis or interfere during an emergency. Therefore, the Distribution System and the Generation and Storage is anticipated to have a Less-Than-Significant impact in this category of concern.

Also, refer to the Transportation Section for traffic impacts associated with each component of the project.

Sources: *Gonzales 2010 General Plan*; GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications.

g. Will the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Status: “No Impact”

Explanation: According to the Fire Hazard Severity Zones adopted by CAL FIRE (2007) the areas within which the project components sites are located are designated as neither “Very High,” “High,” nor “Moderate” potential for fire hazards. The microgrid project areas contain open agricultural fields, the Salinas River corridor, and urbanized areas of Gonzales. None of these areas contain concentrations of trees, vegetation, or other wildfire fuel, and the areas are topographically flat. Most of the urban corridor along which power transmission lines will be constructed above ground - i.e., Gonzales River Road, Alta Street, and “A” Street—are devoid of any wildland vegetation. Furthermore “A” Street has an irregular pattern of street trees, with many lots void of tree vegetation.

The presence of street trees along “A” Street, where 60 kV power lines will be installed on 40-foot poles above ground, along one side of “A” Street right-of-way or the other, creates the ongoing potential for fire and/or power failure during high-wind periods, but this does not constitute a threat related to “wildland fires” and therefore will result in No Impact in this category of concern.

Sources: *Gonzales 2010 General Plan*; Map of CAL FIRE’s Fire Hazard Severity Zones in State Responsibility Areas –Monterey County – 2007; Site visit by Matthew Sundt, Community Development Director, February 12, 2020;

Hydrology and Water Quality

ENVIRONMENTAL IMPACTS	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
HYDROLOGY AND WATER QUALITY. Will the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			X	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			X	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that will:				
i) result in substantial erosion or siltation on- or off-site.			X	
(ii) substantially increase the rate or amount of surface runoff in a manner which will result in flooding on- or offsite;			X	
(iii) create or contribute runoff water which will exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or			X	
(iv) impede or redirect flood flows?				X
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				X
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?				X

a. Will the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Status: "Less-Than-Significant Impact"

Explanation: The Distribution System and Generation and Storage Facility will contain electric utility power generation, storage, distribution, and sub-transmission equipment that will have no effect on water quality and violate no waste discharge requirements.

The Conditional Use Permit will require all project components to comply with General Plan Implementing Actions FS-4.1.1 (On-Site Retention and Detention), FS-4.1.4 (Best management Practices), and FS-4.1.8 (SWPPP) that address drainage facilities. Consistent with these actions, drainage and erosion control plans must be developed that retain project drainage onsite, identify Best Management Practices demonstrating control of erosion and water quality impacts during construction, and comply with stormwater pollution prevention practices.

National Pollutant Discharge Elimination System (NPDES)

The State Water Resources Control Board NPDES Program was adopted to control and enforce storm water pollutant discharge reduction per the Clean Water Act. The Central Coast Regional Water Quality Control Board (RWQCB) issues and enforces the NPDES permits for discharges to waterbodies in Monterey County, including Gonzales.

The State Water Resources Control Board NPDES Program, General Construction Permit, requires development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) that uses storm water Best Management Practices to control runoff, erosion, and sedimentation from the site both during and after construction. The SWPPP has two major objectives: (1) to help identify the sources of sediments and other pollutants that affect the quality of storm water discharges; and (2) to describe and ensure the implementation of practices to reduce sediment and other pollutants in storm water discharges. As the project sites will disturb more than one acre of land during construction, the project developer will be required to file a notice of intent to be covered under the NPDES General Permit for Storm Water Discharges Associated with Construction Activity for discharges of storm water from construction activities. The developer must propose control measures that are consistent with this permit and consistent with recommendations and policies of the local agency and the regional board.

Future construction on the wastewater treatment site and within the Business Park must also comply with Resolution No. R3-2013-003, Post-Construction Stormwater Management Requirements for Development Projects in the Central Coast (California Regional Water Quality Control Board Central Coast Region 2013) as mandated by the regional board.

The City of Gonzales requires compliance with local and state requirements for construction and storm water discharge as a standard condition of project approval. With this condition of approval in place, the project components will not violate any water quality standards or waste discharge requirements or otherwise substantially degrade water quality during construction or during project operations. Therefore, the Distribution System and the Generation and Storage is anticipated to have a Less-Than-Significant impact in this category of concern.

Sources: "Environmental Impact Report, Gonzales Agricultural Industrial Business Park" (SCH# 2004081010); GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications

- b. Will the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?***

Status: “Less-Than-Significant Impact”

Explanation: The City of Gonzales obtains groundwater from the Salinas Valley Groundwater Basin for all municipal and industrial purposes. Recharge to the groundwater basin occurs through the Salinas River, percolation of rainfall and runoff from the surrounding hills, and irrigation return flow.

Elements of the Generation and Storage Facility will result in the construction of new impervious surfaces that will reduce recharge at their respective sites. The City of Gonzales, in planning for the Gonzales Agricultural Industrial Business Park in which the Storage Facility and portions of the Generation Facility will be located, constructed a drainage basin, located on about five acres of property immediately adjacent to the 162 Bodega Road site, to provide overflow capacity. This off-site drainage basin provides percolation and offsets, at least in part, the reduction of percolation that otherwise occurs as the Business Park develops. The Gonzales Agricultural Industrial Business Park EIR found this impact to be Less-Than-Significant and identified no mitigation measure for the purpose of increasing stormwater recharge.

Project Distribution System is not expected to have any effect on groundwater supplies or groundwater recharge.

The project components will have a Less-Than-Significant impact in this category of concern.

Sources: “Environmental Impact Report, Gonzales Agricultural Industrial Business Park” (SCH# 2004081010); GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications; Gonzales City Code

- c. Will the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that will:***

(i) result in substantial erosion or siltation on- or off-site.

Status: “Less-Than-Significant Impact”

Explanation: The project components are located areas that are topographically flat, and there are no drainages or other water features on these sites. Improvement of the sites could alter existing drainage patterns such that erosion or siltation will occur on or off site.

As noted above in section “a”, the City of Gonzales requires as a standard condition of approval compliance with the Phase II Municipal Separate Storm Sewer System (MS4) General Permit (Order No. 2013-0001-DWQ) and the Post-Construction Stormwater Management Requirements for

Developments Projects in the Central Coast Region (Resolution No. R3-2013-0032). With this Condition of Approval in place for each project component, each of the project components will have a Less-Than-Significant effect in this category of concern.

Sources: GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications; Site visit by Matthew Sundt, Community Development Director, February 12, 2020.

(ii) substantially increase the rate or amount of surface runoff in a manner which will result in flooding on- or offsite;

Status: “Less-Than-Significant Impact”

Explanation: The addition of impervious surfaces could increase the rate and/or amount of surface runoff that could result in flooding on- or off-site.

As noted above in section “a”, the City of Gonzales requires as a standard condition of approval compliance with the Phase II Municipal Separate Storm Sewer System (MS4) General Permit (Order No. 2013-0001-DWQ) and the Post-Construction Stormwater Management Requirements for Developments Projects in the Central Coast Region (Resolution No. R3-2013-0032). With this Condition of Approval in place for each project component, each of the project components will have a Less-Than-Significant effect in this category of concern.

Sources: GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications; Site visit by Matthew Sundt, Community Development Director, February 12, 2020.

(iii) create or contribute runoff water which will exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

Status: “Less-Than-Significant Impact”

Explanation: The addition of impervious surfaces will contribute runoff water that that could exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

As noted above in section “a”, the City of Gonzales requires as a standard condition of approval compliance with the Phase II Municipal Separate Storm Sewer System (MS4) General Permit (Order No. 2013-0001-DWQ) and the Post-Construction Stormwater Management Requirements for Developments Projects in the Central Coast Region (Resolution No. R3-2013-0032). With this Condition of Approval in place for each project component, each of the project components will have a Less-Than-Significant effect in this category of concern.

Sources: “Environmental Impact Report, Gonzales Agricultural Industrial Business Park” (SCH# 2004081010); GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications; Site visit by Matthew Sundt, Community Development Director, February 12, 2020.

(iv) impede or redirect flood flows?

Status: “No Impact”

Explanation: There are no features of the project that have the potential to impede or redirect flood flows. The project has No Impact in this category of concern.

Sources: GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications

d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Status: “No Impact”

Explanation: According to the General Plan EIR Figure 4.9.2 (Flood Hazard Zones), the Gonzales Wastewater Treatment Plant is located in a 100-year flood hazard zone, so the components of the project within the Treatment Plant are also in this zone. The only structures being proposed in this area are either ground-mounted solar panels or solar panels located on structures over wastewater treatment ponds. In either case, these structures will not significantly impede flood waters because water will be able to run under the structure. In the rare instance that they are inundated, these improvements do not risk release of pollutants. The project has No Impact in this category of concern.

Sources: 2010 Gonzales General Plan EIR; GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications

e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Status: “No Impact”

Explanation: As thoroughly described in response (a) above, the project will comply with the City’s General Plan Implementing Actions and will be required to prepare a SWPP. Furthermore, the nature of the project precludes there being any impacts to water resources thereby not obstructing implementation of a water quality control plan or sustainable groundwater management plan. The project has No Impact in this category of concern.

Sources: 2010 Gonzales General Plan EIR; GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications.

Land Use and Planning

ENVIRONMENTAL IMPACTS	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
LAND USE AND PLANNING. Will the project:				
a) Physically divide an established community?				X
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?				X

a. Will the project physically divide an established community?

Status: “No Impact”

Explanation: The project components will have no possibility of physically dividing an established community. The project will develop an electric power microgrid to serve businesses in the Business Park. Rights-of-way to be used for poles and wires will remain entirely intact, and where sites are proposed to be developed with structures (e.g., power house, substation, etc.), these sites will be developed in a manner consistent with the uses set forth in the *Gonzales 2010 General Plan*. In no case will an established community be divided as a result of any of these project components. The project will have No Impact in this category of concern.

Sources: GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications; *Gonzales 2010 General Plan*

b. Will the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Status: “No Impact”

Explanation: The project components will have no possibility of conflicting with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. Each of the project components is consistent with the *Gonzales 2010 General Plan* and consistent with the *Gonzales Climate Action Plan*, which was adopted to address GHG emission impacts related to the adoption of the *Gonzales 2010 General Plan*. Although overhead power lines will traverse Centennial Park in order to connect to the existing overhead power lines of the CAISO/PG&E, this section of the project will traverse aerially approximately 140 feet (email correspondence, Amy Tomlinson, July 27, 2021)

The project components will have no possibility of conflicting with any applicable Habitat Conservation Plan or Natural Community Conservation Plan. According to the Gonzales 2010 General Plan, there are no habitat conservation plans or natural community conservation plans in effect in the Gonzales area. Each of the project components will have No Impact in this category of concern.

Sources: “Environmental Impact Report, Gonzales Agricultural Industrial Business Park” (SCH# 2004081010); *Gonzales 2010 General Plan*; *Gonzales Climate Action Plan*; GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications

Mineral Resources

ENVIRONMENTAL IMPACTS	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
MINERAL RESOURCES. Will the project:				
a) Result in the loss of availability of a known mineral resource that will be of value to the region and the residents of the state?				X
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?				X

a. Will the project result in the loss of availability of a known mineral resource that will be of value to the region and the residents of the state?

Status: “No Impact”

Explanation: The project components will have no possibility of resulting in the loss of availability of a mineral resource of value to the region and the residents of the state. According to the *Gonzales 2010 General Plan*, there are no known mineral resources that will be of value to the region and the residents of the state in the project vicinity. Each of the project components will have No Impact in this category of concern.

Sources: *Gonzales 2010 General Plan*; GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications

b. Will the project result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

Status: “No Impact”

Explanation: The project components will have no possibility of resulting in the loss of availability of a locally-important mineral resource recovery site. According to the *Gonzales 2010 General Plan*, there are no locally-important mineral resource recovery sites in the project vicinity. Each of the project components will have No Impact in this category of concern.

Sources: *Gonzales 2010 General Plan*; GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications

Noise

ENVIRONMENTAL IMPACTS	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
NOISE. Will the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies?		X		
b) Generation of excessive ground borne vibration or ground borne noise levels?			X	
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, will the project expose people residing or working in the project area to excessive noise levels?				X

- a. *Will the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies?*

Status: "Less-Than-Significant Impact with Mitigation"

Explanation:

There are two sources of noise associated with the Microgrid project: (1) construction related noise, and (2) operational noise.

Construction Noise –

Construction noise will be related to, (a) Power Generation, (b) Distribution Sub-Station/Power Storage and (c) Distribution System

(a) Power Generation: construction related to power generation will be related to installation of photo voltaic panels set on steel posts / concrete foundations in the wastewater treatment plant area (Refer to Figure 12), and the secondary photo voltaic farm in the City's retention facility at the terminus of Katharine Street located in the Business Park. Heavy construction equipment will include front loader, drilling rig and trucks delivering concrete, engineered soils, and solar panels and associated equipment and accessories.

(b) Distribution Substation/Power Storage: Construction related to the sub-station and power storage (refer to Figure 5) will include front loader and trucks delivering concrete, engineered soils, and substation components to include solar panels and associated equipment and accessories.

(c) Distribution System: This component of the Microgrid project includes drilling new holes for new power poles on Short Road, Gonzales River Road, Alta Street, and “A” Street that will connect the power generation facility at the wastewater treatment plant to the CASIO/PG&E regional transmission line that runs through Centennial Park. However, the distribution lines servicing the existing Industrial District adjacent to South Alta Street will have a dedicated distribution line located underground. This will require trenching in Alta Street. Refer to Figures 2 and 4. Therefore, construction noise on Alta Street will be associated with drilling for new power poles and trenching. Installation of distribution lines on “A” Street will be above ground on poles only and will require a drilling rig and a power cable truck used to “hang” new power lines.

A variety of equipment will be used associated with the Distribution System and the Generation and Storage Facility and the type of equipment will vary. For example, the boom trucks with attached auger will be used to install above ground poles. The lineman will use a boom truck with auger attachment to drill the ground and set the poles. Poles will be towed onsite with a pole trailer. A bucket and boom truck will be used to lift men and material up to frame the poles and to install conductors. A cable reel trailer will be used to string lines onto the framing. Lineman will lash and tension the conductors from bucket trucks. Appendix A includes an abbreviated version of the Federal Highway Administration (FHA) Construction Equipment Noise Emission Reference table that shows the variety of construction equipment expected to be used for the Microgrid project and the associated noise levels this equipment makes as measured 50 feet from the equipment.

During trenching related to the distribution lines, there will be a concrete saw to cut the road surface, a backhoe to trench, and a cable reel trailer. Dump trucks will be used to bring engineered soils and a compactor to compact soils as they are returned to the trench. This would be followed by a new overlay of asphalt which also requires compacting. A total of 1.6 miles of trenching is required as show here:

1. 1,600 ft. along Bodega Road (30-inch-wide trench)
2. 2,450 ft. along Katherine St (18-inch-wide trench)
3. 1,450 ft. along Alpine Rd (18-inch-wide trench)
4. 300 ft. along Gonzales River Rd (18-inch-wide trench)
5. 2,900 ft. along S Alta St (30-inch-wide trench)

The Gonzales General Plan lacks an evaluation/discussion of construction related noise issues, but it does address the stationary noise sources and their potential impacts to sensitive receptors (also stationary) as well as transportation noise sources (UPRR, Hwy 101, Alta Street, etc.) and their potential impacts. Regardless, the standard used in the Gonzales GP (page V-55) is 60 dB DNL¹² within the outdoor activity area of the sensitive receptor (a 65 dB DNL is allowed in the Downtown

¹² DNL refers to “day/night average sound level”, which is the time-weighted average sound level during a 24-hour day, obtained after adding 10 dB to sound level during the nighttime hours (10 PM to 7 AM)

Mixed-Use District that fronts Alta Street) and 45 dB DNL for the interior area of the sensitive receptor regardless of location. As such, these dB DNL levels related to stationary noise levels as well as transportation related noise sources (i.e., locating a residence next to either a stationary or transportation noise source) must result in the interior and exterior noise level of said residence to not exceed 45 (interior) and 60 dB DNL (exterior) (65 dB DNL in the case of the Downtown Mixed-Use District). Regardless, of the absence of direction from the GP related to construction noise, the Microgrid Initial Study must address noise impacts on sensitive receptors during the construction phase.

The Microgrid project's Distribution System pathway will be adjacent to sensitive receptors only in that area fronting "A" and Alta Streets. It is important to note that whatever noise is created associated with the Distribution System installed on Gonzales Road, the Business Park and Short Road is inconsequential as these areas are adjacent to ag land (not a sensitive receptor) and either in the WWTP area (not a sensitive receptor) or the Business Park (uses in the Business Park do not constitute sensitive receptors) Therefore, noise impacts from installing the Distribution System in the non-residential areas will have "No Impact" as there are no sensitive receptors of concern.

The primary noise making vehicle in the residential area of "A" Street associated with construction will be the auger drill rig which will drill four power pole holes along the length of "A" Street. The detail of this work is as follows: one day to drill four holes and set poles, one day to "frame"¹³ each pole and two days of stringing activities. Each hole is drilled to a depth of 8 – 12ft. Per the FHA (refer to Appendix C), the auger drill rig is known to generate 84 dBA¹⁴ at 50 horizontal feet (note that for every doubling of distance the dBA level is reduced by 6 dBA). As the residences on one side of "A" St. are well within 50 feet of the proposed new power line alignment (the applicant has not yet determined which side of "A" St. the power line will be installed), it is anticipated that the noise level in the outdoor activity area and indoor noise level of these adjacent residences will exceed the threshold of 60 and 45 dB DNL, respectively. However, the City's conditional use permits limit construction noise to certain dates and times in order to minimize impacts. For example, if the drilling of four holes and installation of power poles on "A" Street occurs on a single day and is limited to a weekday between 0800 and 1700, the noise will be of short duration and intermittent. Therefore, the impact is "Less-Than-Significant" with the following mitigation measure.

¹³ To "frame" a pole means to install the hardware to accommodate electrical wires.

¹⁴ The term "dBA" is used when describing sound level recommendations for healthy listening. While the dB scale is based only on sound intensity, the dBA scale is based on intensity and on how the human ear responds. Because of this, dBA gives us a better idea of when sound can damage hearing – e.g., being subjected to prolonged sound measured at 85 dBA will damage hearing. The term dBA is used to define sound emanating from, for example, a machine - Appendix A explains this.

Mitigation Measure 5

Hours of construction is limited to 0800 to 1700 hours where construction will occur within 500 feet of the residences fronting “A” Street, and residents and businesses fronting Alta Street between First and “B” Streets will be forewarned by the contractor one week prior to the work dates.

Operational Noise –

There are no operational noises associated with solar panels and the distribution lines. However, the proposed substation (a 60 kV facility similar to the existing PG&E substation in the City of Gonzales at the corner of Alta and 7th Street) is anticipated to operate with a continuous sound or buzz. This sound is derived from the vibration created by the transformers. These transformers typically generate a noise level ranging from 60 to 80 dBA.¹⁵ The author of this report conducted a site visit of the Existing PG&E substation on September 23, 2021, to verify the nature of the sound and found that although audible and prevalent the sound is not overwhelming and there are no known complaints from the community about this existing substation that has been in place over 40 years.

The proposed substation will also be a 60 kV facility and so expected to use similar operational equipment so it is expected that the sound generated is expected to be the same as that associated with the existing PG&E station (i.e., 60 to 80 dBA).

It is relevant to note that the proposed substation will be on the far west side of the Gonzales Agricultural Industrial Business Park and immediately adjacent to an agricultural processing facility to the east and vast acreage of row crops immediately to the west. The nearest sensitive receptors (i.e., residential) are approximately 2,700 feet to the east and as for every doubling of distance from the source of noise there is a 6 dB reduction in noise, there is not expected to be an impact. Therefore, operational impacts are considered Less-than-Significant in this category of concern. .

General Plan Standards –

The standards established in the “local general plan” are those contained in the 2010 Gonzales General Plan, Community Health and Safety Element and associated EIR. These two documents address sensitive receptors and “noise contours” (i.e., noise contour lines) that radiate out from Gonzales city streets or the UPRR tracks.

¹⁵ <https://electrical-engineering-portal.com/typical-noise-levels-in-power-substation>. Internet site visit occurred on September 24, 2021

Through its General Plan, the City has determined that acceptable noise levels relevant to sensitive receptors will be 60 to 65 dB DNL for exterior noise and 45 dB DNL for interior noise. The General Plan (Table 4.8.1 of the General Plan included herein by reference) shows noise contours as they were in 2010, and future noise contours related to the General Plan at buildout (Table 4.8.4; included herein by reference). The existing noise levels and forecasted noise levels are vehicle related only. The General Plan omits noise levels specific to construction activity because of its intermittent character and having no known or particular geographic position and thus difficult and unpractical to discuss in the Gonzales General Plan.

Relevant to the sub-station and storage components of the microgrid projects is the 2005 “Gonzales Agricultural Industrial Business Park EIR” that included an analysis of potential long-term (“operational”) noise impacts that could accompany development within the Business Park. Noise sources are associated with truck traffic and other industrial noises including equipment such as coolers. The ambient noise level generated by truck and vehicle traffic would not be at a level that would exceed City of Gonzales thresholds in the industrial area (Exterior Acceptable Level = < 70 dB; Exterior Conditionally Acceptable = 70 – 80 dB; there are no interior standards for manufacturing or industrial uses) and is therefore not anticipated to create a significant impact to the surrounding industrial areas. The noise generated by the substation equipment is not anticipated to exceed City of Gonzales thresholds. Said EIR concluded that noise impacts at the industrial park are less-than-significant; that conclusion still stands.

In conclusion, the Microgrid project will have Less-Than-Significant impacts as it relates to both construction and operations.

Sources: 2010 Gonzales General Plan, Community Health and Safety Element – Noise”; “Environmental Impact Report, Gonzales Agricultural Industrial Business Park” (SCH# 2004081010); GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications.

b. Will the project result in generation of excessive ground borne vibration or ground borne noise levels?

Status: “Less-Than-Significant Impact”

Explanation: The project components will have a low probability of exposing persons to, or generating, excessive ground-borne vibration or ground-borne noise levels. No pile drivers or any other equipment causing ground borne vibration or noise will be used in either the Distribution System or the Generation and Storage Facility. See also the discussion above in section “a”. Each of the project components will have a Less-Than-Significant impact in this category of concern.

Sources: “Environmental Impact Report, Gonzales Agricultural Industrial Business Park” (SCH# 2004081010); GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications.

- c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, will the project expose people residing or working in the project area to excessive noise levels?*

Status: "No Impact"

Explanation: The project components will have no possibility of exposing people residing or working in the project area to excessive noise levels from an airport. According to the *Gonzales 2010 General Plan*, there are no airports in the project vicinity. Each of the project components will have No Impact in this category of concern.

Sources: GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications; *Gonzales 2010 General Plan*

Population and Housing

ENVIRONMENTAL IMPACTS	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
POPULATION AND HOUSING. Will the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

- a. Will the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?***

Status: No Impact”

Explanation: The project components will include public utility uses constructed either within the Gonzales Wastewater Treatment Plant, within the Business Park, or along rights-of-way connecting the two areas. These uses will have a low probability of inducing substantial, unintended population growth in an area, as the proposed facilities are located either within the Gonzales Wastewater Treatment Plant (expansion of the treatment plant is a sperate project intended to serve buildout of the city’s industrial lands) or on sites within an established business park that anticipates the type and scale of projects. The General Plan EIR analyzed the impact of planned growth including development and build out of the Business Park. Each of the project components will have No Impact in this category of concern.

Sources: 2010 Gonzales General Plan EIR; GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications

- b. Will the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?***

Status: “No Impact”

Explanation: The project components will have no possibility of displacing any housing. The project components will include public utility uses constructed within the Gonzales Wastewater Treatment Plant, within the Business Park, or along rights-of-way. Each of the project components will have No Impact in this category of concern.

Sources: GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications; Site visit by Matthew Sundt, Community Development Director, February 12, 2020.

Public Services

ENVIRONMENTAL IMPACTS	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
PUBLIC SERVICES. Will the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or need for new or physical altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
a) Fire protection?			X	
b) Police protection?			X	
c) Schools?				X
d) Parks?				X
e) Other public facilities?				X

a. Fire protection

Status: “Less-Than-Significant Impact”

Explanation: The project will not require provision of new or physically altered governmental facilities related to fire protection. The Generation and Storage Facility includes the installation of large-scale lithium-ion and flow battery energy storage systems at 162 Bodega Road. As discussed in the Hazards and Hazardous Materials section lithium-ion battery energy storage systems have the potential to cause intense fire.

In a phone conversation with Jason Muscio, Fire Chief, Gonzales Fire Department, Mr. Muscio said his Department currently has the equipment needed to respond to a fire involving a large-scale lithium-ion battery energy storage system such as the type included in the project, and no additional equipment purchase will be required. Special training, however, might be required to adequately respond to such a fire, but on-site fire suppression systems designed to handle such a fire would be required of the project to minimize Fire Department involvement. In any event, the project does not require construction of any additional fire facilities that may cause environmental impacts. Refer to the Hazardous Materials section of this Initial Study for a discussion related to lithium-ion batteries. Each of the project components will have a Less-Than-Significant Impact in this category of concern.

Sources: GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications

b. Police protection

Status: “Less-Than-Significant Impact”

Explanation: The project will not require provision of new or physically altered governmental facilities related to police protection. It introduces no housing, commercial, or other use by any person except for a small number of employees. The Business Park and Wastewater Treatment Plant are already adequately served by police services, and these uses do not add to the demand on police services. Each of the project components will have a Less-Than-Significant Impact in this category of concern.

Sources: *Gonzales 2010 General Plan*; 2010 Gonzales General Plan EIR; GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications; Gonzales City Code

c. Schools

Status: “No Impact”

Explanation: The project will not require provision of new or physically altered governmental facilities related to schools. None of the project components will directly result in the creation of new housing or population growth. Accordingly, the project will not directly generate new students that could impact area schools. Each of the project components will have No Impact in this category of concern.

Sources: *Gonzales 2010 General Plan*; GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications

d. Parks

Status: “No Impact”

Explanation: The project will not require provision of new or physically altered governmental facilities related to parks. The project will not directly result in the creation of new

housing and will create only a small number of new jobs that would not place a discernable demand on park facilities. Each of the project components will have No Impact in this category of concern.

Sources: GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications

e. Other public facilities

Status: “No Impact”

Explanation: The project does not require provision of any other new or physically altered governmental facilities. The project will create a small number of new jobs over a period of time. This increase will have no significant or measurable impact on “other utilities” such as utilities, water, and wastewater. Each of the project components will have No Impact in this category of impact.

Sources: GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications

Recreation

ENVIRONMENTAL IMPACTS	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
RECREATION. Will the project:				
a) Will the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility will occur or be accelerated?				X
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X

a. Will the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility will occur or be accelerated?

Status: “No Impact”

Explanation: The project will include public utility uses constructed either within the Gonzales Wastewater Treatment Plant, within the Business Park, or along rights-of-way connecting the two areas. No new residential uses are proposed as part of the project and only a small number of jobs will result from the project. As such, the project will not result in a significant increase in use of existing neighborhood and regional parks or other recreational facilities. Each of the project components will have No Impact in this category of impact.

Sources: GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Status: “No Impact”

Explanation: The project does not include the construction of new park facilities or the expansion of existing facilities. Each of the project components will have No Impact in this category of impact.

Sources: GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications

Transportation

ENVIRONMENTAL IMPACTS	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
TRANSPORTATION/TRAFFIC. Will the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?			X	
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?			X	
c) Substantially increase hazards due to a geometric design feature (for example, sharp curves or dangerous intersections) or incompatible uses (for example, farm equipment)?				X
d) Result in inadequate emergency access?			X	

a. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Status: "Less-Than-Significant Impact"

Explanation: The City of Gonzales has numerous Goals, Policies and Actions in the General Plan pertaining to transportation. Based on a review of these none will be affected by the proposed project. The Distribution System and Generation and Storage Facility are expected to cause temporary traffic disruption during construction. The Distribution System involves trenching along existing streets and rights-of-way within the Business Park to install a power distribution system. The Generation and Storage Facility involves trenching along parts of Gonzales River Road (from WWTP to Bodega Road) and Bodega Road (new private right-of-way accessing properties at 122, 142, and 162 Bodega Road), and it also involves the installation of power poles along other parts of Gonzales River Road (Bodega Road to Alta Street), along Alta Street (Gonzales River Road to "A" Street), and along "A" Street to Centennial Park. In each case, and particularly along Gonzales River Road, this construction work to install underground power lines and overhead power lines on poles will temporarily disrupt traffic flows along these corridors. Although construction activities will have no impact on the aforementioned Goals, Policies and Actions, all construction projects that require encroachment to City streets must prepare and implement a City mandated traffic management plan that addresses temporary traffic control measures to ensure that construction activities do not significantly disrupt traffic flows along city-owned rights of way or county-owned rights-of-way. Each of the project components will have a Less-Than-Significant impact in this category of concern.

Each of the project components will have a Less-Than-Significant impact in this category of concern.

Sources: GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications

b. Will the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Status: “Less-Than-Significant Impact”

Explanation: This project will not permanently increase vehicle trips. This project requires negligible in-person maintenance once construction is complete, so there will only be a small increase in vehicle trips generated during construction activities, ending once construction is complete. As such, the project will not produce any impacts related to vehicle miles traveled (“VMT”) and will not conflict with CEQA Guidelines Section 15064.3(b). Each of the project components will have a Less-Than-Significant impact in this category of concern.

Sources: “Environmental Impact Report, Gonzales Agricultural Industrial Business Park” (SCH# 2004081010); GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications

c. Will the project substantially increase hazards due to a geometric design feature (for example, sharp curves or dangerous intersections) or incompatible uses (for example, farm equipment)?

Status: “No Impact”

Explanation: The project components will include public utility uses constructed within the Gonzales Wastewater Treatment Plant, within the Business Park, or along rights-of-way connecting the two areas. As part of this project, Bodega Microgrid LLC and Concentric Power, Inc will construct a new private street (Bodega Road) extending from Gonzales River Road to Katherine Street and providing access to 122, 142, and 162 Bodega Road. As such, there are no foreseeable or planned project components that could increase hazards. Each of the project components will have No Impact in this category of impact.

Sources: “Environmental Impact Report, Gonzales Agricultural Industrial Business Park” (SCH# 2004081010); GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications

d. Will the project result in inadequate emergency access?

Status: “Less-Than-Significant Impact”

Explanation: The project components will include public utility uses constructed within the Gonzales Wastewater Treatment Plant, within the Business Park, or along rights-of-way connecting the two areas, and will not impact emergency access to those areas. The project includes the construction of a new private street—Bodega Road—to serve 122, 142, and 162 Bodega Road. This street will connect to Gonzales River Road to the south and the Katherine Street cul-de-sac to the north and will comply with all standard City requirements concerning width, etc. to ensure adequate emergency access. Each of the project components will have a Less-Than-Significant impact in this category of concern.

See also section “f” in the Hazards and Hazardous Materials section for a discussion concerning impacts related to interference with an adopted emergency evacuation plan.

Sources: GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications

Tribal Cultural Resources

ENVIRONMENTAL IMPACTS	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
TRIBAL CULTURAL RESOURCES.				
a) Will the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or		X		
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.				X

a. (i) Will the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

Status: “Less-Than-Significant Impact with Mitigation”

The project will include public utility uses constructed either in the expansion footprint of the Gonzales Wastewater Treatment Plant, within the Business Park, or along rights-of-way in the City and County.

In 2017, the City of Gonzales undertook a cultural resource analysis for a project that was previously proposed for the project sites at 122, 142, and 162 Bodega Road (i.e., the proposed sites in the Business Park where parts of the Distribution System and Generation and Storage Facility will be

constructed). According to the 2017 report¹⁶ (attached as Exhibit A), the cultural resource expert conducted a record search of an area within a ¼-mile radius centered on the project sites through the Northwest Information Center. That search indicated that no pre-historic or historic sites exist within the vicinity of the project sites. The expert also conducted a physical inspection of the project site and found no indicators of historic or prehistoric cultural activity. As for the Wastewater Treatment Plant sites, these are already highly disturbed with no indicators of historic or prehistoric cultural activity. Each proposed component of the project will have No Impact in this category of concern.

Potential impacts to tribal cultural resources are a significant impact, but with mitigation such impacts will be rendered less than significant. The Gonzales Agricultural Industrial Business Park EIR also found these concerns to be Less-Than-Significant with mitigation and included the following mitigation measure to address the concern. This mitigation measure is now carried forward to address the project at hand, and with it, the impacts related to tribal cultural resources will be less than significant:

Mitigation Measure 8 - Refer to Mitigation Measure 1 in the Cultural Resources section above

Sources: “Preliminary Cultural Resources Reconnaissance” (Morley, 2017); GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications

(ii) Will the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

Status: “No Impact”

Explanation: The project components will be located at 1) in the Business Park that, according to a previous cultural resources report prepared by Susan Morley, has no history of tribal cultural resources being present and 2) at the wastewater treatment plant and its expansion area that have been developed with wastewater treatment equipment or under active agricultural cultivation, respectively. The City of Gonzales has not identified any significant tribal cultural resources in any of these areas.

¹⁶ Susan Morley, M.A., “Preliminary Cultural Resources Reconnaissance, Assessor Parcel Number APNs 223-081-017, 018, and 019 in the City of Gonzales, County of Monterey.”

See also the discussion above in section “a”. Each of the project components will have No Impact in this category of concern.

Sources: “Preliminary Cultural Resources Reconnaissance” (Morley, 2017); GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications

Utilities and Service Systems

ENVIRONMENTAL IMPACTS	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
UTILITIES AND SERVICE SYSTEMS. Will the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?			X	
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			X	
c) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			X	
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			X	
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			X	

a. Will the project require or result in the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Status: "Less-Than-Significant Impact"

Explanation: The project components will include public utility uses constructed within the Gonzales Wastewater Treatment Plant, within the Business Park, or along rights-of-way connecting the two areas. The Distribution System is not expected to generate wastewater or require a potable water supply. The Generation and Storage Facility will include a powerhouse that will include one toilet for the occasional employee that is in the facility to check operations. This one toilet will be expected to generate approximately 30 gallons per day (three (3) gallons per flush x 10 flushes). A 30 gpd flow to the Wastewater Treatment facility will not exceed the treatment plant's capacity. The Distribution System and Generation and Storage Facility will have Less-Than-Significant Impact in this category of concern.

Sources: "Environmental Impact Report, Gonzales Agricultural Industrial Business Park" (SCH# 2004081010); GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications.

- b. Will the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?***

Status: “Less-Than-Significant Impact”

Explanation: The project components will include public utility uses constructed within the Gonzales Wastewater Treatment Plant, within the Business Park, or along rights-of-way connecting the two areas. Only the Distribution System is expected to require potable water supplies. The City of Gonzales is expected to be able to easily serve this project component with its existing water service capacity, and no new or expanded water entitlement will be required. See the discussion in section “a”, above, for a more detailed discussion of expected water use. The Distribution System and Generation and Storage Facility will have Less-Than-Significant Impact in this category of concern.

Sources: GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications

- c. Will the project result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments?***

Status: “Less-Than-Significant Impact”

Explanation: The Storage Facility is expected to generate approximately 30 gallons per day of sewer effluent. Given this minimal daily discharge there is adequate capacity in the existing WWTP to accommodate this flow. The Storage Facility will have Less-Than-Significant Impact in this category of concern.

Sources: GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications; “Environmental Impact Report, Gonzales Agricultural Industrial Business Park” (SCH# 2004081010)

- d. Will the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?***

Status: “No Impact”

Explanation: The project components will include public utility uses constructed within the Gonzales Wastewater Treatment Plant, within the Business Park, or along rights-of-way connecting the two areas. The Distribution System and Generation and Storage Facility are not expected to generate solid waste in any ongoing manner.

The Distribution System and Generation and Storage Facility will have a Less-Than-Significant Impact in this category of concern.

Sources: GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications; 2010 Gonzales General Plan EIR; *Gonzales 2010 General Plan*

e. Will the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Status: “Less-Than-Significant Impact”

Explanation: The project components will include public utility uses constructed within the Gonzales Wastewater Treatment Plant, within the Business Park, or along rights-of-way connecting the two areas. The Distribution System and Generation and Storage Facility are not expected to generate solid waste in any ongoing manner. Therefore, the Distribution System and Generation and Storage Facility will have a Less-Than-Significant impact in this category of concern.

Sources: *Gonzales 2010 General Plan*; GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications

Wildfire

ENVIRONMENTAL IMPACTS	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
Wildfire. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, will the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?				X
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?				X
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?				X
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?				X

The City of Gonzales, the Distribution System and Generation and Storage Facility are not in or near state responsibility areas or lands classified as very high fire hazard severity zones.

a. Substantially impair an adopted emergency response plan or emergency evacuation plan?

Status: “No Impact”

Explanation: Gonzales does not have an emergency evacuation plan. There will be No Impact in this category of concern.

b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Status: “No Impact”

Explanation: The project is not located on a slope or in an area known for winds. Moreover, many components will be co-located on existing infrastructure or underground, so there are No Impacts in this category of concern.

c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Status: “No Impact”

Explanation: Based on the project description there will be no installation or maintenance of associated infrastructure that would exacerbate fire risk or result in temporary or ongoing impacts to the environment.

Sources: GMEU, Bodega Microgrid, and Concentric Power, Inc. CUP applications; 2010 Gonzales General Plan EIR; *Gonzales 2010 General Plan*

d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Status: “No Impact”

Explanation: The project components are to be located on flat ag land, or on flat land adjacent to. and as a result, there will be no people or structures exposed to significant risks, including downslope or downstream flooding or landslides. As the subject lands are flat there will be no runoff, post-fire slope instability, or drainage changes There are No Impacts in this category of concern.

Mandatory Findings of Significance

ENVIRONMENTAL IMPACTS	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
MANDATORY FINDINGS OF SIGNIFICANCE. Does the project:				
a) Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?			X	
b) Have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of the past projects, the effects of other current projects, and the effects of probable future projects.)			X	
c) Have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?			X	

a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Status: “Less-Than-Significant Impact”

Explanation:

The project components will include public utility uses constructed within the Gonzales Wastewater Treatment Plant, within the Business Park, the Industrial District, along rights-of-way connecting the two areas, and the existing CAISO/PG&E power line. These project sites contain no vegetation of concern and are not near any water features, so the project will not substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal.

Each of the project components will have a Less-Than-Significant impact in this category of concern.

- b. Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of the past projects, the effects of other current projects, and the effects of probable future projects.)***

Status: “Less-Than-Significant Impact”

Explanation: project

As explained in the Project Description section of this Initial Study, the project is a planned-for component of the buildout of the Business Park. It is a public utility that will mostly operate unmanned. It also does not involve construction of large structures as compared to nearby agricultural processing facilities. Given its low profile and its lack of significant impacts, the project will not cumulatively impact the environment. The project components individually and combined will not contribute to cumulative impacts

Each of the project components will have a Less-Than-Significant impact in this category of concern.

- c. Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?***

Status: “Less-Than-Significant Impact”

Explanation: Based on the project description and environmental analysis herein there are no project environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly.

Section IV. Environmental Determination

D E T E R M I N A T I O N

On the basis of this initial evaluation:

I find that the project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	
I find that although the project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.	X
I find that the project MAY have a significant effect on the environment and an ENVIRONMENTAL IMPACT REPORT is required.	
I find that the project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.	
I find that although the project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.	

 Matthew Sundt,
 Community Development Director/Building Official

 Date

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Section V. Mitigation Monitoring Plan

SUMMARY OF MITIGATION MEASURES

Mitigation Measure 1 (Aesthetics)

All exterior lighting for the Generation and Storage Facility must be designed to provide for operational and security requirements while minimizing adverse effects to other properties in the vicinity. Lighting fixtures shall be downcast and shielded and designed to reflect light away from the surrounding premises and all public rights-of-way. Prior to the issuance of a Building Permit, Bodega Microgrid shall submit a photometric lighting analysis for review and approval of the Director of Community Development that concludes, and by way of a diagram, illustrates that no more than .01 horizontal lumen foot-candles are allowed to escape the project site extending beyond 15 feet from the project site boundary.

Mitigation Measure 2 (Cultural Resources)

To reduce potential impacts on archaeological resources during construction, the following language shall be included on any permits issued for the project sites, including, but not limited to, grading and building permits for future development.

- a. *In the event that significant archaeological remains are uncovered during excavation and/or grading, all work shall stop in the area of the subject property until an appropriate data recovery program can be developed and implemented. (From the Gonzales Agricultural Industrial Business Park EIR: Mitigation Measure 7)*

- b. *In the event of an accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the City shall ensure that the following language is included in all permits. If human remains are found during construction, there shall be no further excavation or disturbance of the site, or any nearby area reasonably suspected to overlie adjacent human remains until a coroner is contacted to determine that no investigation of the cause of death is required. If the coroner determines the remains to be Native American, the coroner shall contact the Native American Heritage Commission within 24 hours. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descendent (MLD) from the deceased Native American. The MLD may then make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and associated grave goods as provided in Public Resources Code Section 5097.98. The landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further disturbance if: a) the Native American Heritage Commission is unable to identify a MLD or the MLD failed to make a recommendation within 24 hours after being notified by the commission; b) the descendent identified fails to make a recommendation; or c) the landowner or his*

authorized representative rejects the recommendation of the descendent, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner. (From the Gonzales Agricultural Industrial Business Park EIR: Mitigation Measure 8)

- c. Before any earth moving activities occur the contractor(s) and sub-contractors shall participate in a program administered by an archaeologist who shall explain what archaeological resources look like that may be found in the area so that workers will know what to look for. Said program will require a letter from the archaeologist explaining what was taught, where it was taught, when it was taught, and who participated. This mitigation is required and is applicable to all personnel who are drilling, digging, scraping, trenching, and otherwise working with and in the ground. Said letter shall be submitted to the Community Development Department Director prior to issuance of demolition or construction permits.*

Mitigation Measure 3 (Hazards and Hazardous Materials)

The project proponent Bodega Microgrid will include in its Hazardous Materials Permit application to the County of Monterey Health Department (Environmental Health) proposed measures to safely decommission battery energy storage systems at the end of their useful life. The County of Monterey Health Department (Environmental Health) shall include such measures as it sees fit in its issued permit to ensure that the future decommissioning of batteries is monitored and controlled to ensure the safe handling of hazardous battery materials/substances. Prior to issuing a Building Permit, Bodega Microgrid shall submit to the Gonzales Fire Department verification that the County reviewed and approved the Hazardous Materials Permit.

Mitigation Measure 4 (Hazards and Hazardous Materials)

Bodega Microgrid will include as part of the Generation and Storage Facility plans for a fire suppression system capable for handling fire caused by lithium-ion battery energy storage systems. Prior to issuing a Building Permit, Bodega Microgrid shall submit to the Gonzales Fire Department plans for the fire suppression system and that these plans will have been reviewed and approved by the Gonzales Fire Department.

Mitigation Measure 5 (Noise)

Hours of construction is limited to 0800 to 1700 hours where construction will occur within 500 feet of the residences fronting "A" Street, and residents and businesses fronting Alta Street between First and "B" Streets will be forewarned by the contractor one week prior to the work dates.

Mitigation Measure 6 (Tribal Cultural Resources) - Refer to Mitigation 2 under Cultural Resources.

MONITORING PROGRAM

The Community Development and Public Works Directors are responsible for ensuring that project plans are appropriately prepared and revised (if necessary) prior to commencing with any demolition and construction. The following actions are required to monitor implementation of the Mitigation Measures as necessary to reduce project impacts to a level that is Less-than-Significant.

- **Specific Actions Needed for Implementation:** Actions are specified in each Mitigation Measure.
- **Staff or Agency Responsible for Implementation:** The project proponent is responsible for project plans. The Community Development and Public Works Directors are responsible for ensuring that plans are appropriately prepared and revised prior to commencing with any demolition and construction.
- **Timing of Implementation:** Depending on the Mitigation Measure, implementation may occur prior to construction or concurrent to.
- **Timing of Monitoring or Reporting:** The Community Development and Public Works Directors shall report on the implementation of the mitigation measures as necessary to assure implementation.

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Section VI. References

REPORT PREPARATION

Matthew Sundt, City of Gonzales Community Development Director / Building Official

PERSONS CONTACTED

Patrick Dobbins, City of Gonzales City Engineer / Public Works Director

Amy Tomlinson, Concentric Power

Martin Carver, Zero City

Louise J. Miranda Ramirez, Tribal Chairwoman, Ohlone Costanoan Esselen Nation

Karen White, Council Chair, Xolon Salinan Tribe

REFERENCES

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19. Map of CAL FIRE's Fire Hazard Severity Zones in State Responsibility Areas –Monterey County – 2007

**Appendix A - “Preliminary Cultural Resources
Reconnaissance, Assessor Parcel Number APNs 223-081-
017, 018, and 019 in the City of Gonzales, County of
Monterey.” Susan Morley, M.A., July 2017**

Preliminary Cultural Resources Reconnaissance,
Assessor's Parcel Numbers 223-081-017, 223-081-018, 223-081-019
City of Gonzales, County of Monterey

Prepared for
Martin Carver, AICP
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July 2017

Evidence of Sacred/Religious Site? Yes__ No x

Evidence of Native American Remains on Site? Yes__ No x

Evidence of Anything of Archaeological Significance? Yes__ No x

Positive Findings of Historical Significance? Yes__ No x

This is not an official county document.

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Introduction

In June 2017 Mr. Martin Carver, AIPC, retained the author to conduct a preliminary cultural resources survey for Assessor's Parcel Numbers (APNs) 223-081-017, 223-081-018, 223-081-019 in the City of Gonzales (Figure 1, p.4), County of Monterey, California. Plans are proposed to construct a new cannabis growing facility on the project parcels. Because these plans include subsurface disturbance of soils, and because the project parcels are located in an area of archaeological sensitivity, the City of Gonzales Community Development Department has required an archaeological survey for the permitting process.

In accordance with the California Environmental Quality Act (1970), a site record search was conducted through the Northwest Information Center at Sonoma State University in Rohnert Park, File Number 16-1449. A subsequent archaeological reconnaissance was conducted on July 3, 2017. This report presents the results of the archaeological site record searches, subsequent archaeological reconnaissance, and professional recommendations.

Project Location and Description

There are three parcels that were surveyed; two of the project parcels are 2.690 acres in area at 162 and 142 Bodega; the third parcel is 2.71 acres at 122 Bodega in the City of Gonzales, approximately 20 miles south of Salinas and east of Highway 101 in the Gonzales Agricultural Business Park. The project parcels are at the western terminus of Katherine Street, which is a cul-de-sac. The three parcels are adjacent to each other and form a regular rectangle.

The project parcels are located on the United States Geological Survey 7.5 minute series [1984] Gonzales Quadrangle. The Universal Transmercator grid coordinates calculated for the corners of the three contiguous parcels are approximated (Figures 2, 3 and 4):

NW corner, 638569.5metersE/4040682N,
NE corner, 638634.5metersE/4040734.5N,
SW corner, 638854.5metersE/4040342N, and
SE corner, 638927metersE/4040414.5N.

The project parcels are located within the 15,218 acres Mexican Land Grant *Rincon de la Puente del Monte* granted to Teodoro Gonzáles in 1836 (Howard, 1978).

Elevation of these parcels is approximately 125 feet above mean sea level; the parcels are level land on the floor of the Salinas Valley. The neighborhood is a commercial section of town, mostly dealing with agricultural businesses.

There is currently little vegetation on the project parcels other than a few stands of wild mallow (*Malvaceae* spp.) and wild morning glory (*Calystegia macrostegia*). The nearest reliable source of fresh water is the Salinas River, 1.5 miles to the southwest.

Currently, the parcels are undeveloped and recently plowed. There are empty fields south, north, and west of the project parcel. On the east is an organic growing facility. According to the text on

the architectural drawings, Net Zero Farms 1 LLC proposes to construct a Cannabis Growing & Processing Facility 55,000 square-foot in area (Zero City 2017-xx, T1.1).

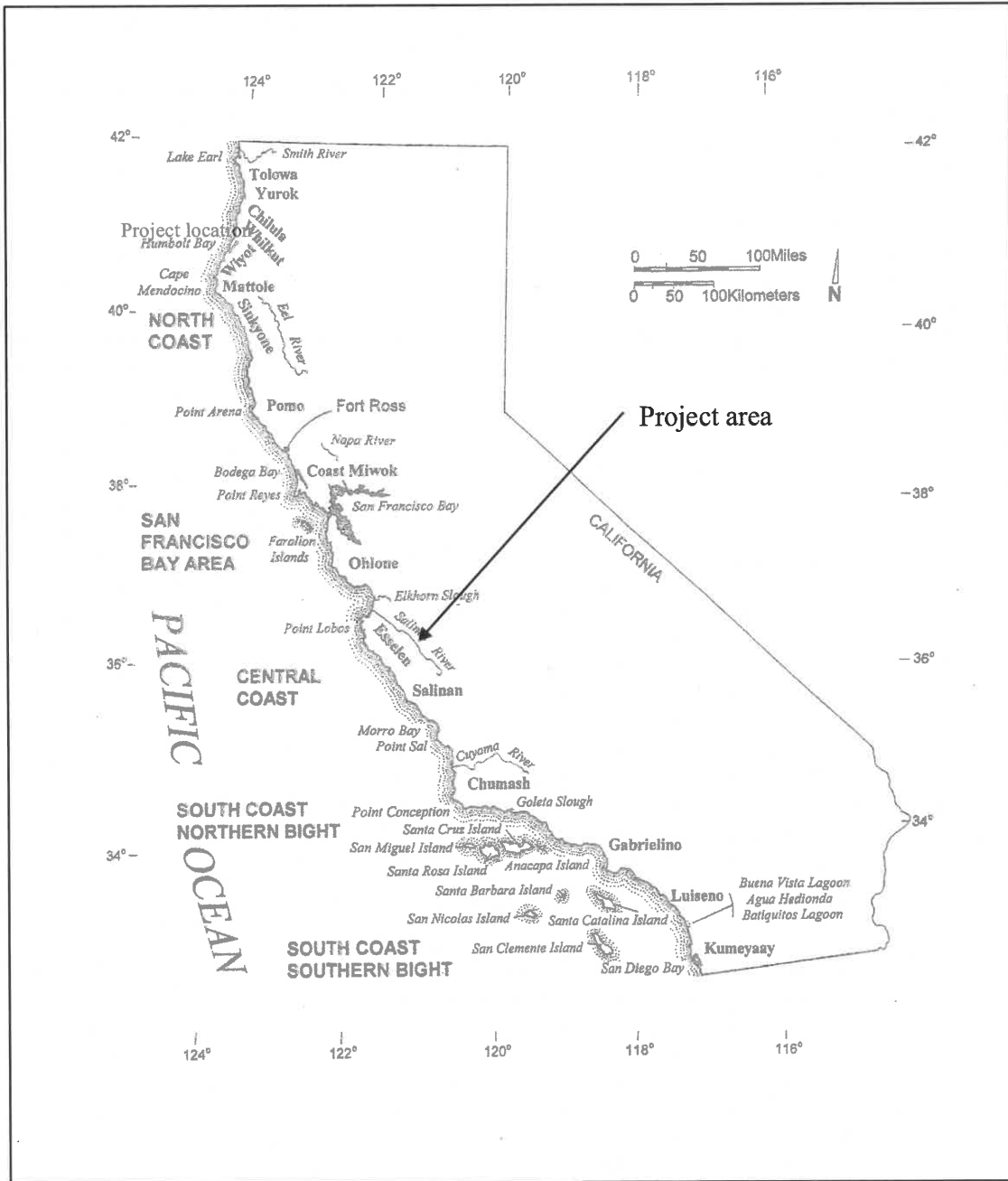


Figure 1: Regional Location Map for Gonzales, California.

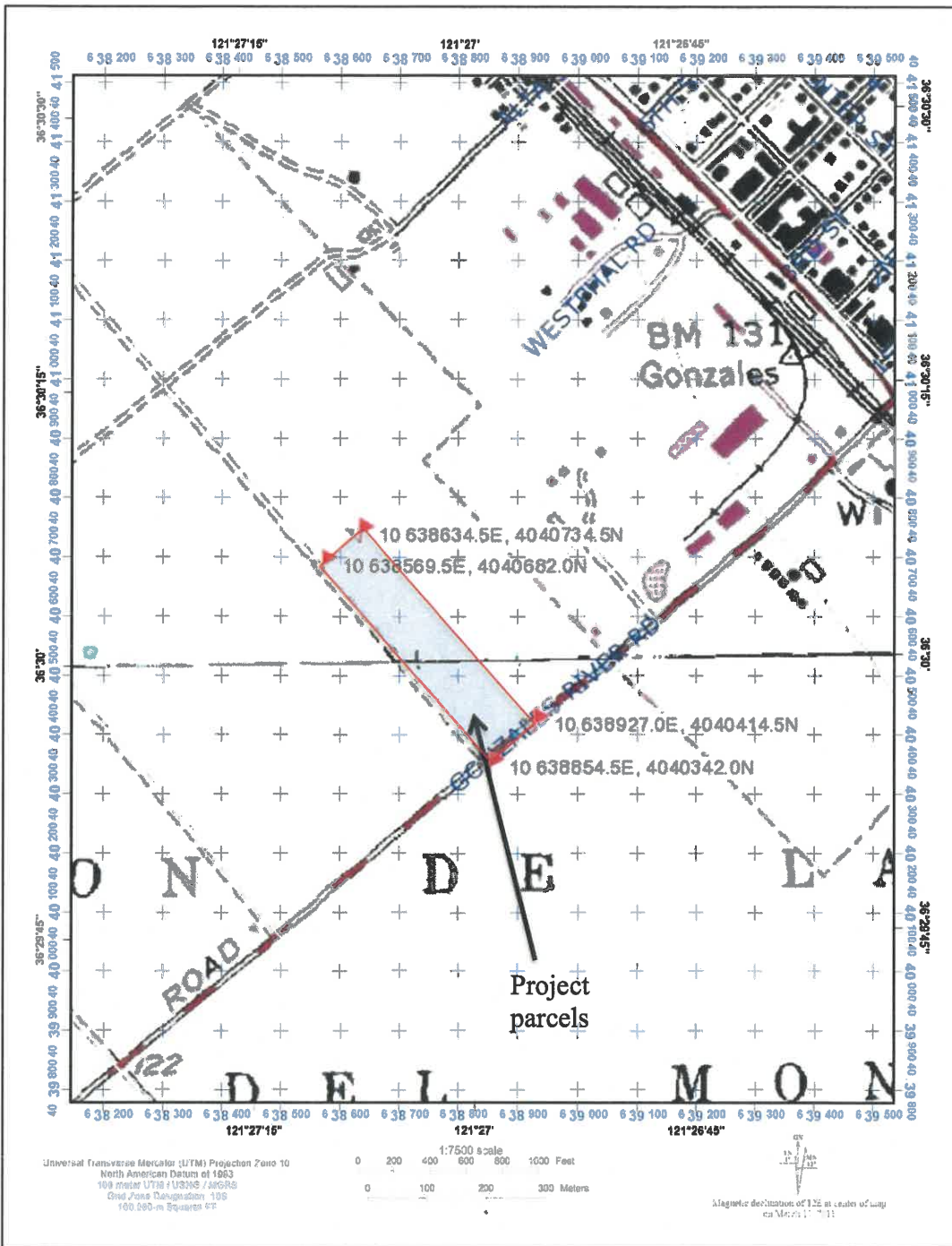


Figure 2: The three contiguous project parcels are located on a portion of the United States Geological Survey Gonzales Quadrangle (1984).

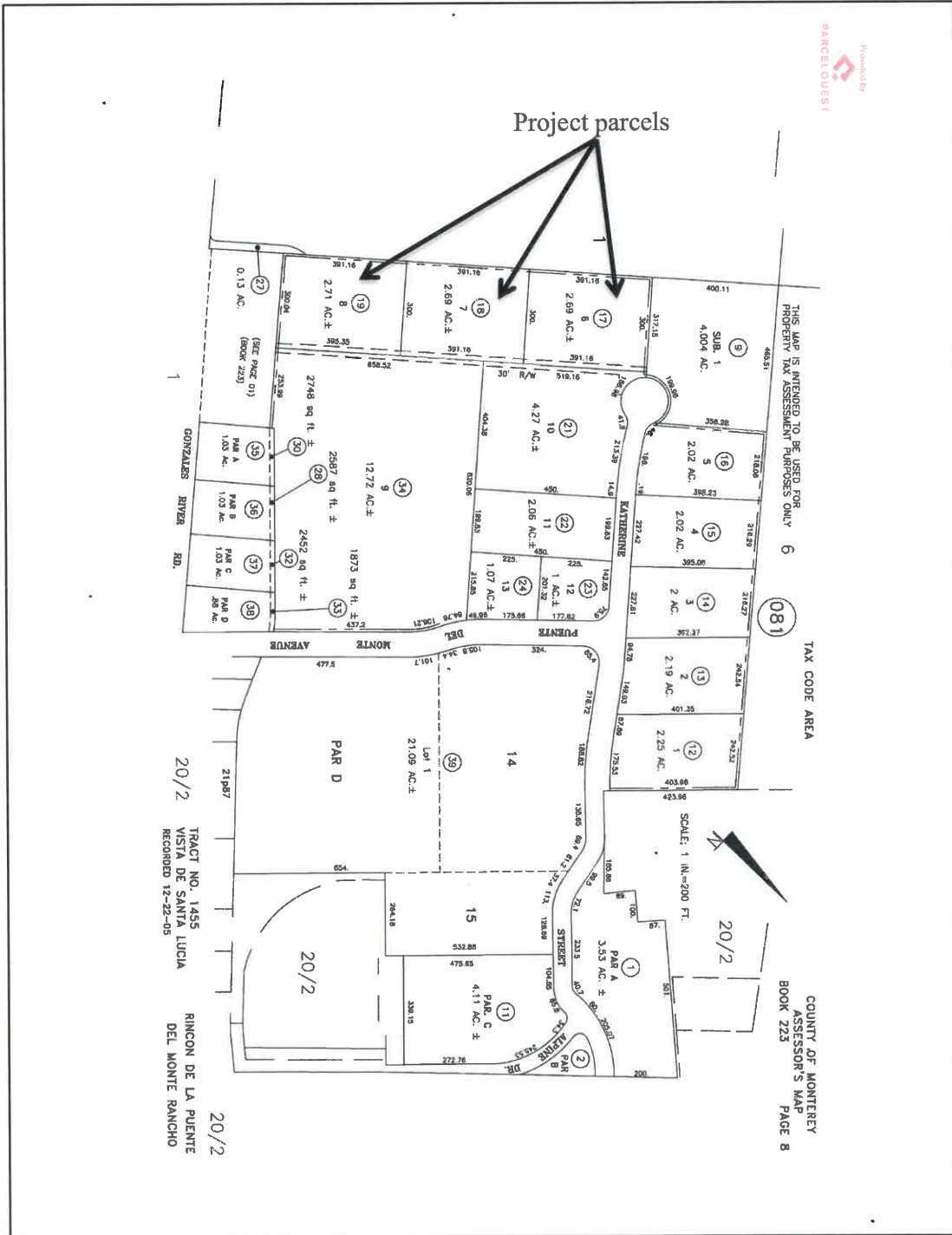


Figure 3: Monterey County Assessor's Parcel Map for APNs 223-081-017, 223-081-018, 223-081-019.



Figure 4: Monterey County Assessor's Aerial map for APNs 223-081-017, 223-081-018, 223-081-019

Prehistoric Background

Currently, the oldest known and recorded site in Monterey County is CA-MNT-17C on Carmel Point, approximately 25 miles (linear) from the project site. Breschini *et al.* obtained a carbon date of 9,300 YBP (Breschini, 2012) for CA-MNT-17C, one the most studied archaeology site in Monterey County.

Approximately 50 miles from the project site on the coast near Harmony, Little Pico and Pico Creek sites produced a radiocarbon dates of 3180±600 (Leonard, *et al.* 1968). More recently Jones and Waugh investigated seventeen sites from San Carpoforo to Pico Creek, in the vicinity of San Simeon, providing evidence of habitation “spanning 8400 years BP through historic contact” (1995: 14). Forty four years ago Roberta Greenwood (1972) conducted archaeological investigations that produced a chronology dating over a period of 9,000 years. Radiocarbon dating provides evidence that aboriginal peoples have inhabited the region for perhaps as long as 10,000 years.

Ethnographic Background

Bean with Lawton (1973) and Bean with Blackburn (1976) understood that the prehistoric people of the region we now call California was more connected and complex than Kroeber had initially made them out to be. Bean wrote that the people living in villages of close proximity intermarried and were thus connected families. Milliken's ethnographies of the regions prehistoric tribes provide evidence that elite people from the various tribes of the Monterey Bay region intermarried to form political alliances (1995& 1987). In the early 1900s Kroeber conducted what he termed “salvage”

archaeology and he formulated his idea of ‘tribelets’ from groups that were already thoroughly disrupted by missionization. Hypothetical boundaries of three tribelets come together in the vicinity of the project site of Gonzales in the upper Salinas Valley contemporarily known as the Costanoan, Salinan, and Esselen ethnolinguistic boundaries (Hester (1978: 501). The indigenous peoples of Monterey County are identified according to linguistic groups, Costanoan speakers, Esselen speakers, and Salinan speakers. Tribal boundaries are not easily determined due to the paucity of ethnographic accounts; however, there is a strong reliance on mission records. Archaeologists continue to ponder boundaries for the Salinan and Chumash to the southwest, as well. Just where the ethnolinguistic borders are located along the coast is one goal of regional prehistoric research. Quoted on page 11, the linguist, William Shipley, states that the Salinans occupied upper Salinas Valley (1978).

The indigenous societies were hunter-gatherers with an intimate knowledge of the land. They processed seeds, berries and acorns, fished and hunted; they had access to the littoral for shellfish and marine mammals. They practiced land management by burning the land to induce new growth of vegetation to increase grasses and forbes (Lewis 1978) for consumption by themselves and other wildlife species they depended upon for subsistence. California basketry is considered perhaps the finest in the world (Bibby 2012).

Both groups were taken into Mission San Antonio de Padua (founded in July 1771) and Mission Nuestra Señora de la Soledad (founded in October 1791) by the Spanish padres. Mission San Antonio had the largest population of neophytes of any of the California missions. Due to missionization these indigenous societies were thoroughly disrupted. Much of their history has been gleaned from both the mission records and archaeological investigation.

Bill Shipley, a linguistic specialist of California Indian languages, supplied descriptions of Costanoan, Esselen and Salinan languages in the *Handbook of North American Indians: California*, Volume 8 (1978: 85). Callahan classified Costanoan as part of the Penutian language family (1967). The Costanoan language group is comprised of eight regional divisions, Rumsen, centered on the Monterey Peninsula, and Chalon east of the upper Salinas Valley near Soledad. Shipley reported that the Esselen and Salinan languages are of the Hokan language family.

Salinan Language

The Salinan language was spoken by some 2,000 persons in at least two dialects: Miguelaño and Antoniaño, named for the two Spanish mission that were established in their territory. There may have been a third dialect along the coast, which Kroeber (1925:546) refers to as Playano; of this form of Salinan speech there are no records whatever. The language is extinct. Aside from some word lists (Heizer 1952), there are two descriptive documents (Kroeber 1904a; and J.A. Mason 1918). The Salinans occupied the middle and upper Salinas Valley and the Coast Range to the west almost as far south as the town of San Luis Obispo.

Esselen Language

Esselen is very little known. The language was spoken by a few hundred people on the upper reaches of the Carmel River and on the coast around Big Sur. It was classified as Hokan on the basis of a few lexical resemblances. Only word lists are available (Heizer 1952; Kroeber 1904a). According to maps in the *Handbook of North American Indians*, Vol. 8 (1978: 496 & 501) the project area is near estimated boundaries of Salinan speakers and Esselen speakers and Costanoan

speakers to the north (Figure 1 & 5). Jones map of California tribes does not provide tribal boundaries but offers general locations of these groups (Figure 1).

Results of Site Record Search

The site record search conducted through the Northwest Information Center (File Number 16-1299) for a one-quarter mile radius around the project parcels indicates that no prehistoric or historic sites exist within the boundaries of the project parcels or within a one quarter mile radius.

Archaeological Reconnaissance

Archaeological reconnaissance followed standard methods of procedure. The project parcel was physically and methodically inspected for indicators of cultural resources on July 3, 2017. In central California, archaeologists are alerted to prehistoric sites by the presence of midden soils darkened from accumulation of organic remains. In addition, the presence of various shell remnants from either the bay or littoral may indicate a site. Archaeologists also look for flaked stone artifacts and ground stone that is either complete or in fragments representing mortars and pestles or manos and metates. Sites are often located near the source of fresh water. Some prehistoric sites are occupational sites while others may be quarries, workstations, milling stations, hunting stations, or ideological sites that exhibit rock art or petroglyphs.

Field Survey

The author surveyed the project parcels walking in transects inspecting the soils for indicators of cultural resources. Soils are clearly visible as they have been recently plowed and there is little vegetation to obscure them. On the day of the field survey the winds in the valley were gusting causing one's eyes to tear and walking open fields difficult.

Project Soils

Soils on the project parcels are classified by the United States Department of Agriculture (Soils Web) as "Cropley silty clay, 0 to 2 percent slopes" (<https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>). Cropley silty clay is found at toeslopes and footslopes. The soil is formed from alluvium from mixed rock sources. Cropley soils are on alluvial fans, floodplains and in small basins.

Soils on the project parcels are grayish brown silty clay loam, 2.5Y 5/2, on the Munsell Color Series Chart. Most portions of the project area have been recently plowed revealing the subsurface soils and greatly facilitating this survey. There are scattered pebbles of quartz in these soils, as well as shale "pebbles", as the Salinas Valley soils are a "*patchwork of weathered alluvial and sedimentary soils suspended over two aquifers, one 180 feet down, the other 200 feet below that--a masterpiece of natural engineering*", according to Terry Cook a soils scientist with the Natural Resources Conservation Service (Coast Weekly 2002, unpaginated).



Figure 5: Maps of Salinan and Esselen territory, *Handbook of North American Indians* (1978).

There are some river cobbles present that have been broken up by plowing. Smoothed, shaped cobbles are also found in archaeology sites and are groundstone tools, such as manos and pestles. No modified cobbles were noted in the soils during the survey of the project parcels. These soils are composed of silty clay loam and during this survey no cultural materials or anthropogenic soils were in evidence.



Figure 6: View of project parcel on the north (looking west) depicts soils as clearly visible



Figure 7: View of plowed soils on the south portions of the project parcel (looking north).



Figure 8: Soils are silty clay loam and subsurface soils are visible because of plowing.

Conclusion

The record search through the Northwest Regional Information Center indicates no cultural resources are present within a one quarter mile radius of the project parcels. The archaeological field survey encountered no indicators expected of a prehistoric archaeological site in this region; no culturally modified soils were present; no shell fragments, bone fragments, or culturally modified lithic materials were noted in the soils of the project parcels. No granitic or other bedrock outcrops were present that may possibly have contained bedrock mortars or cupules. According to the record search the nearest reported archaeology site is more than one quarter mile in distance from the project parcels.

Recommendations

No evidence of historic or prehistoric cultural activity was observed during the archaeological reconnaissance. The nearest archaeology site is more than one-quarter mile from the project. Therefore, it is the professional opinion of this writer that these parcels do not contain cultural resources, either historic or prehistoric in nature. Based upon these negative findings, there is no reason to delay the project due to archaeological concerns. It must be recommended that in the event that unexpected traces of historic or prehistoric materials, i.e., human remains, concentrations of shell or heat altered rock or historic trash pits are encountered during grading or other future development, a qualified archaeologist should be retained for appropriate archaeological mitigation.

Health and Safety Code § 7050.5

If any human remains are exposed, the Health and Safety Code § 7050.5 requires that no further excavation or disturbance occurs in the area and that the county coroner is called so that the coroner can verify that the remains are not subject to medical jurisprudence. Within 24 hours of notification, the coroner calls the Native American Heritage Commission if the remains are known or thought to be Native American.

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Appendix B – Gonzales Microgrid Project Air Quality and Greenhouse Gas Emissions Assessment. Dudek, April 13, 2021

MEMORANDUM

To: Steve Farr, Senior Project Manager, Concentric Power Inc.
From: Jennifer Reed, David Larocca, Dudek
Subject: Gonzales Microgrid Project Air Quality and Greenhouse Gas Emissions Assessment
Date: April 13, 2021
Attachment: A – Detailed Vendor Information and Emissions Calculations

Dudek is pleased to submit this air quality and greenhouse gas (GHG) emissions assessment to assist Concentric Power, Inc. and subsidiary Bodega Microgrid, LLC in support of California Environmental Quality Act (CEQA) documentation requirements for the proposed Gonzales Microgrid Project (proposed project or project). The project includes electric generation, energy storage, transmission and distribution facilities for Gonzales Municipal Electric Utility (GMEU) to provide electric power service to customers in and adjacent to the Gonzales Agricultural Industrial Business Park (Business Park) and to export incidental power to the regional power grid.

1 Introduction

The purpose of this memorandum is to assess the potential air quality and GHG emissions impacts associated with implementation of the project, which includes estimating criteria air pollutant and GHG emissions from construction and operation of the project. This assessment uses the significance thresholds in Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) and is based on the emissions-based significance thresholds recommended by the Monterey Bay Air Resources District (MBARD) and other applicable guidance. The contents and organization of this memorandum are as follows: project description, air quality analysis, GHG emissions analysis, and references. For the air quality and GHG emissions analyses, each section presents a brief pollutant and regulatory overview, significance thresholds, approach and methodology, impact assessment, and a summary of the conclusions.

2 Project Description

The proposed electric power distribution microgrid including electric power generation and storage system facilities project is located in and adjacent to the Gonzales Agricultural Industrial Business Park and the Gonzales Wastewater Treatment Plant, both located in the City of Gonzales (City) in Monterey County. The project sites are in the City of Gonzales (generation, storage, and distribution assets) and in adjacent unincorporated area (gen-tie and sub-transmission lines only). Gonzales is approximately 20 miles south of the City of Salinas on US 101. The project is characterized by the following two components:

1. **Electric Power Distribution System.** This component of the proposed project involves the construction and operation of a utility-grade electric power distribution system. The microgrid will initially be designed to be a standalone system (i.e., unconnected to the Pacific Gas and Electric (PG&E) regional power grid), with future capability of interconnecting with the California Independent System Operator (CAISO)/PG&E regional power grid. The proposed electric power distribution system would include the distribution and

metering of electric power to customers in and adjacent to the Gonzales Agricultural Industrial Business Park. This would also include handling of incidental renewable electric power generated by GMEU customers (i.e., electric power feed in).

2. **Electric Power Generation.** Electric power generation facilities, battery energy storage system (BESS), gen-tie connection system to deliver power from generating assets to microgrid powerhouse, electric power substation for incidental power export, interconnection with CAISO/PG&E regional power grid, and sub-transmission system connecting substation to CAISO/PG&E regional power grid. This component of the proposed project involves the construction and operation of an electric power generation and storage system, in two phases, to be owned and operated by Bodega Microgrid, LLC to provide electric power to the GMEA. The electric power generation and storage system would include:
 1. The generation of electric power using 18 megawatts (MW) of solar PV panels and 15.5 MW of natural gas internal combustion engines.
 2. The storage of electric power using battery energy storage systems capable of 7.5 MW/30 megawatt-hour (MWh) storage capacity.
 3. Gen-Tie and metering between electric power generation assets and distribution systems in and adjacent to the Gonzales Agricultural Industrial Business Park.
 4. The operation of an electric power transmission substation with the capacity to export electric power to the PG&E regional power grid.
 5. The sub-transmission and metering of electric power from the microgrid substation to the CAISO/PG&E power grid connection.
 6. The command and control of electric power generation and storage.

The proposed project includes the development of a powerhouse building as a location for the engines, the battery energy storage systems, and switchgear. Firm power generation will be provided by two 2.5 MW and two 4.0 MW natural gas engines, while one additional 2.5 MW natural gas engine serving as a backup unit for use only when one other unit is off-line. Oxides of nitrogen (NO_x) emissions will be controlled through selective catalytic reduction (SCR) installed on each engine. Emissions of NO_x, reactive organic gases (ROG), and carbon monoxide (CO) from the engines will meet MBARD Best Available Control Technology (BACT) emission guidelines. Anhydrous ammonia will be used to reduce NO_x concentrations through SCR emissions control. Ammonia will periodically be delivered to the site by truck and stored at the new ammonia storage and transferring system. The system consists of a truck unloading station, ammonia storage tanks (not to exceed 10,000 gallons in total), and ammonia vaporizing skid. Because the engines require constant cooling, the proposed project includes the use dry coolers, which require electric power to cool the engines.

The transport of electric power from the solar PV components to the power hub at 162 Bodega Lane requires a gen-tie line approximated two (2) miles long. Power would also be transported from generating assets on land leased by Bodega Microgrid LLC from the City of Gonzales at 195 Katherine Street. The conductors used in the gen-tie system would be placed underground in trenches along Gonzales River Road to Bodega Lane.

Electric Power Generation and Storage Facility would also include a sub-transmission system capable of exported incidental electric power from the planned substation to an interconnection to CAISO/PG&E's regional power grid at Centennial Park, 250 1st Street. The conductors used in the sub-transmission systems would be located both above ground on poles and in some locations below ground in trenches.

An electric open-air substation will be built as part of the microgrid system. The substation is estimated to be 15,000 square feet. Components of the substation include switch gear, transformers, circuit breakers, air switches, buses, and other standard components.

3 Air Quality

3.1 Pollutant and Regulatory Overview

Criteria Air Pollutants

Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. The national and California standards have been set, with an adequate margin of safety, at levels above which concentrations could be harmful to human health and welfare. These standards are designed to protect the most sensitive persons from illness or discomfort. Pollutants of concern include ozone (O₃), nitrogen dioxide (NO₂), CO, sulfur dioxide (SO₂), particulate matter with an aerodynamic diameter less than or equal to 10 microns in size (PM₁₀), and particulate matter with an aerodynamic diameter less than or equal to 2.5 microns in size (PM_{2.5}), and lead. In California, sulfates, vinyl chloride, hydrogen sulfide, and visibility-reducing particles are also regulated as criteria air pollutants. Pollutants evaluated herein include ROGs and NO_x, which are important because they are precursors to O₃, as well as sulfur oxides (SO_x), PM₁₀, and PM_{2.5}. ROGs are also commonly referred to as volatile organic compounds (VOCs); for the purposes of this analysis, ROG and VOC are used interchangeably.

Monterey Bay Air Resources District

The proposed project is located in the North Central Coast Air Basin (NCCAB), which consists of Monterey, Santa Cruz, and San Benito counties and encompasses an area of 5,159 square miles. The MBARD is the regional agency responsible for the regulation and enforcement of federal, state, and local air pollution control regulations in the NCCAB, where the proposed project is located. The MBARD operates monitoring stations in the NCCAB, develops rules and regulations for stationary sources and equipment, prepares emissions inventory and air quality management planning documents, and conducts source testing and inspections. The MBARD's Air Quality Management Plans (AQMPs) include control measures and strategies to be implemented to attain the California Ambient Air Quality Standards (CAAQS) and the National Ambient Air Quality Standards (NAAQS) in the NCCAB. The NAAQS and CAAQS are set by the United States Environmental Protection Agency (EPA) and the California Air Resources Board (CARB), respectively, for the maximum level of a given air pollutant that can exist in the outdoor air without unacceptable effects on human health or the public welfare. The MBARD then implements these control measures as regulations to control or reduce criteria pollutant emissions from stationary sources or equipment.

The MBARD establishes and administers a program of rules and regulations to attain and maintain state and national air quality standards and regulations related to toxic air contaminants (TACs). Rules and regulations that may apply to the proposed project during construction and/or operations include the following (MBARD 2017):

- Regulation II (Permits), Rule 200 (Permits Required). No person shall build, erect, alter, or replace any article, machine, equipment or other contrivance which may cause the issuance of air contaminants or the use of which may eliminate or reduce or control the issuance of air contaminants unless the facility owner

or operator has obtained a separate written Authority to Construct for each permit unit from the Air Pollution Control Officer.

- Regulation II (Permits), Rule 207 (Review of New or Modified Sources). The MBARD regulates criteria air pollutant emissions from new and modified stationary sources through this rule.
- Regulation II (Permits), Rule 218 (Title V: Federal Operating Permits). The purpose of this rule is to provide the issuance of Federal Operating Permits which contain all federally enforceable requirements for stationary sources as required under the provisions of the Title V of the Federal Clean Air Act and amendments.
- Regulation IV (Prohibitions), Rule 400 (Visible Emissions). This rule provides limits for visible emissions for sources within the MBARD jurisdiction.
- Regulation IV (Prohibitions), Rule 402 (Nuisances). This rule establishes a prohibition against sources creating public nuisances while operating within the MBARD jurisdiction.
- Regulation IV (Prohibitions), Rule 403 (Particulate Matter). This rule provides particulate matter emissions limits for sources operating within the MBARD jurisdiction.
- Regulation IV (Prohibitions), Rule 416 (Organic Solvents). This rule limits the emissions of VOCs that are used as solvents within the MBARD jurisdiction.
- Regulation IV (Prohibitions), Rule 417 (Storage of Organic Liquids). This rule limits the emissions of organic solvent vapors from the storage of organic liquids within the MBARD jurisdiction.
- Regulation IV (Prohibitions), Rule 424 (National Emission Standards for Hazardous Air Pollutions). This rule is to provide clarity on the MBARD's enforcement authority for the National Emission Standards for Hazardous Air Pollution including asbestos from demolition.
- Regulation IV (Prohibitions), Rule 425 (Use of Cutback Asphalt). This rule establishes VOC emissions limits associated with the use of cutback and emulsified asphalts.
- Regulation IV (Prohibitions), Rule 426 (Architectural Coatings). This rule establishes VOC emissions limits associated with the use of architectural coatings.
- Regulation X (Toxic Air Contaminants), Rule 1000 (Permit Guidelines and Requirements for Sources Emitting Toxic Air Contaminants). The MBARD also regulates TACs from new or modified sources under Rule 1000, a Board-approved protocol that applies to any source that requires a permit to construct or operate pursuant to MBARD regulations and has the potential to emit carcinogenic or noncarcinogenic TACs. The MBARD's Rule 1000 also requires sources of carcinogenic TACs to install best control technology and reduce cancer risk to less than one incident per 100,000 population. Sources of noncarcinogenic TACs must apply reasonable control technology.

North Central Coast Air Basin Attainment Designations

Pursuant to the 1990 federal Clean Air Act amendments, the EPA classifies air basins (or portions thereof) as "attainment" or "nonattainment" for each criteria air pollutant, based on whether the NAAQS have been achieved. Generally, if the recorded concentrations of a pollutant are lower than the standard, the area is classified as attainment for that pollutant. If an area exceeds the standard, the area is classified as nonattainment for that pollutant. If there is not enough data available to determine whether the standard is exceeded in an area, the area is designated as "unclassified" or "unclassifiable." The designation of "unclassifiable/attainment" means that the area meets the standard or is expected to meet the standard despite a lack of monitoring data. Areas that achieve the standards after a nonattainment designation are redesignated as maintenance areas and must have approved maintenance plans to ensure continued attainment of the standards. The California Clean Air Act, like its federal

counterpart, called for the designation of areas as attainment or nonattainment, but based on CAAQS rather than the NAAQS. Table 1 identifies the current attainment status of the NCCAB, including the proposed project site, with respect to the NAAQS and CAAQS, and the attainment classifications for the criteria pollutants.

Table 1. North Central Coast Air Basin Attainment Classification

Pollutant	Designation/Classification	
	National Standards	California Standards
Ozone (O ₃), 1-hour	No national standard	Nonattainment
Ozone (O ₃), 8-hour	Unclassifiable/attainment	Nonattainment
Nitrogen Dioxide (NO ₂)	Unclassifiable/attainment	Attainment
Carbon Monoxide (CO)	Unclassifiable/attainment	Attainment
Sulfur Dioxide (SO ₂)	Unclassifiable/attainment	Attainment
Coarse Particulate Matter (PM ₁₀)	Unclassifiable/attainment	Nonattainment
Fine Particulate Matter (PM _{2.5})	Unclassifiable/attainment	Attainment
Lead	Unclassifiable/attainment	Attainment
Hydrogen Sulfide	No national standard	Unclassified
Sulfates	No national standard	Attainment
Visibility-Reducing Particles	No national standard	Unclassified
Vinyl Chloride	No national standard	No designation

Sources: EPA 2020 (national); CARB 2019 (California).

Notes: Bold text = not in attainment; attainment = meets the standards; attainment/maintenance = achieves the standards after a nonattainment designation; nonattainment = does not meet the standards; unclassified or unclassifiable = insufficient data to classify; unclassifiable/attainment = meets the standard or is expected to be meet the standard despite a lack of monitoring data.

In summary, the NCCAB is designated as a nonattainment area for the state O₃ and PM₁₀ standards. The NCCAB is designated as unclassified or attainment for all other state and federal standards (EPA 2020; CARB 2019).

3.2 Significance Thresholds

The significance criteria used to evaluate the proposed project’s potential impacts to air quality are based on the recommendations provided in Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.), as follows:

- A. Conflict with or obstruct implementation of the applicable air quality plan
- B. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard
- C. Expose sensitive receptors to substantial pollutant concentrations
- D. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people

Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) indicates that, where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to determine whether a proposed project would have a significant impact on air quality.

The MBARD has adopted two sets of CEQA Guidelines, which contain different thresholds of significance depending on the CEQA lead agency. The *Guidelines for Implementing the California Environmental Quality Act (2016*

Guidelines) (MBARD 2016) were written for when the MBARD is the lead or responsible agency, whereas the *CEQA Air Quality Guidelines* (2008 Guidelines) (MBARD 2008) were written for all other lead agencies. Notably, the 2016 Guidelines include air pollutant thresholds for construction that were not included in the 2008 Guidelines. Since the MBARD is a responsible agency for this proposed project, given that it would issue air pollution permits for stationary sources that may be required for the proposed project, the thresholds included in the 2016 Guidelines were applied to the proposed project. Specifically, a project would result in a significant impact to air quality during construction and/or operations if it results in the generation of emissions of or in excess of any of the following:

- 137 pounds per day of ROG or NO_x
- 82 pounds per day of PM₁₀
- 55 pounds per day of PM_{2.5}
- 550 pounds per day of CO

Consistency with the AQMP is used by MBARD to determine a project's cumulative impact on regional air quality (i.e., ozone levels). Projects which are not consistent with the AQMP have not been accommodated in the AQMP and will have a significant cumulative impact on regional air quality unless emissions are totally offset (MBARD 2008). For localized impacts of the proposed project (i.e., PM₁₀), the threshold for cumulative impacts is the same as that noted above (82 pounds per day of PM₁₀). MBARD's threshold of significance for localized impacts related to CO is exceeded when:

- Level of Service (LOS) at intersection/road segment degrades from D or better to E or F; or
- V/C ratio at intersection/road segment at LOS E or F increases by 0.05 or more; or
- Delay at intersection at LOS E or F increases by 10 seconds or more; or
- Reserve capacity at unsignalized intersection at LOS E or F decreases by 50 or more.

Health effects from carcinogenic air toxics are usually described in terms of cancer risk. The MBARD recommends an incremental cancer risk threshold of 10 in 1 million. "Incremental cancer risk" is the net increased likelihood that a person continuously exposed to concentrations of TACs resulting from a project over a 9-, 30-, and 70-year exposure period will contract cancer based on the use of standard Office of Environmental Health Hazard Assessment risk-assessment methodology. In addition, some TACs have noncarcinogenic effects. The MBARD recommends a Hazard Index of 1 or more for acute (short-term) and chronic (long-term) effects.¹

3.3 Approach and Methodology

The California Emissions Estimator Model (CalEEMod) Version 2016.3.2 was used to estimate emissions from construction of the proposed project (CAPCOA 2017). Project-generated operational emissions were estimated using a combination of CalEEMod and spreadsheet models based on project-specific information and industry standard emission factors. CalEEMod is a statewide computer model developed in cooperation with air districts throughout the state to quantify criteria air pollutant and GHG emissions associated with construction activities and

¹ Non-cancer adverse health risks are measured against a hazard index, which is defined as the ratio of the predicted incremental exposure concentrations of the various noncarcinogens from a project to published reference exposure levels that can cause adverse health effects.

operation of a variety of land use projects. CalEEMod input parameters, including the land use type used to represent the project and its size, construction schedule, and anticipated use of construction equipment, were based on information provided by the applicant or default model assumptions if project specifics were unavailable.

3.3.1 Construction Emissions

Criteria air pollutant emissions associated with construction of the proposed project were estimated using CalEEMod for the following emission sources: operation of off-road construction equipment, ground disturbance/earth movement, paving, architectural coating, on-road hauling and vendor (material delivery) trucks, and worker vehicles. For purposes of estimating emissions for the construction of the project, construction was assumed to commence in August 2021² and last approximately 23 months, ending in July 2023. Construction scenario assumptions, including phasing, equipment mix, and vehicle trips, were based on project-specific values provided by the applicant. The proposed project consists of the following two components with sub-construction phases as follows:

1. Electric Power Distribution System:
 - a. Bodega Road Construction
 - b. Electrical Distribution System Components
2. Electric Power Generation:
 - a. Powerhouse Building, BESS, and Substation
 - b. Solar PV Generation Components
 - c. Gen-tie Transmission Line Construction
 - d. Sub Transmission Line Construction

It was assumed that heavy construction equipment would be operating at the site for approximately 5 days per week (22 days per month) during project construction. Construction scenario assumptions for each of the six project components, including phasing and duration, vehicle trips, and equipment mix, used for estimating project-generated construction emissions are shown in Tables 2 through 7. While six construction scenarios are presented, all construction activity was included in one CalEEMod run to ensure that the maximum emissions associated with potential overlapping activities was evaluated.

² The analysis assumes a construction start date of August 2021, which represents the earliest date construction would initiate. Assuming the earliest start date for construction represents the worst-case scenario for criteria air pollutant and GHG emissions because equipment and vehicle emission factors for later years would be slightly less due to more stringent standards for in-use off-road equipment and heavy-duty trucks, as well as fleet turnover replacing older equipment and vehicles in later years.

Table 2. Construction Scenario Assumptions – Electric Power Distribution System, Bodega Road Construction (9/15/2021–10/27/2021)

Construction Phase	Duration (Days)	One-Way Vehicle Trips			Equipment	Quantity	Usage Hours/Day
		Average Daily Workers	Average Daily Vendor Trucks	Total One-Way Haul Trucks	Type		
Site Preparation	2	12	0	0	Rubber-Tired Dozers	1	7
					Tractors/Loaders/Backhoes	1	8
					Graders	1	8
Grading	4	0	0	0	Graders	1	6
					Rubber-Tired Dozers	1	6
					Tractors/Loaders/Backhoes	1	7
Paving	22	20	4	0	Cement Mortar Mixers	1	6
					Pavers	1	6
					Paving Equipment	1	8
					Rollers	1	7
					Tractors/Loaders/Backhoes	1	8
Architectural Coating (Road Line Painting)	4	14	2	0	Air Compressor (Pressure Washer)	1	6

Table 3. Construction Scenario Assumptions – Electric Power Distribution System Components (10/1/2021–1/18/2022)

Construction Phase	Duration (Days)	One-Way Vehicle Trips			Equipment	Quantity	Usage Hours/Day
		Average Daily Workers	Average Daily Vendor Trucks	Total One-Way Haul Trucks	Type		
Site Preparation	10	14	10	8	Graders	2	8
					Rubber-Tired Dozers	1	8
					Rollers	1	8
					Tractors/Loaders/Backhoes	1	8
Above and Below Ground Utility Installation	56	30	10	2	Excavator	2	8
					Rollers	1	8
					Crawler Tractor (Ozzie Padder modeled as 175 horsepower Crawler Tractor)	1	8
					Rough Terrain Forklifts	1	8

Table 3. Construction Scenario Assumptions – Electric Power Distribution System Components (10/1/2021–1/18/2022)

Construction Phase	Duration (Days)	One-Way Vehicle Trips			Equipment	Quantity	Usage Hours/Day
		Average Daily Workers	Average Daily Vendor Trucks	Total One-Way Haul Trucks	Type		
Site Clean-up and Paving	10	14	2	2	Pavers	1	8
					Paving Equipment	2	6
					Rollers	2	6
					Tractors/Loaders/Backhoes	1	8
Architectural Coating (Road Line Painting)	2	4	2	0	Air Compressor (Pressure Washer)	1	6

Table 4. Construction Scenario Assumptions – Electric Power Generation, Powerhouse Building, BESS and Substation (8/1/2021–1/21/2022)

Construction Phase	Duration (Days)	One-Way Vehicle Trips			Equipment	Quantity	Usage Hours/Day
		Average Daily Workers	Average Daily Vendor Trucks	Total One-Way Haul Trucks	Type		
Site Preparation	2	6	0	0	Graders	1	8
					Tractors/Loaders/Backhoes	1	8
Grading	11	10	0	0	Concrete/Industrial Saws	1	8
					Rubber-Tired Dozers	1	1
					Tractors/Loaders/Backhoes	2	6
Building Construction	111	16	6	0	Cranes	1	4
					Forklifts	2	6
					Tractors/Loaders/Backhoes	2	7
Paving	6	18	6	0	Cement Mortar Mixers	4	6
					Pavers	1	7
					Rollers	1	7
					Tractors/Loaders/Backhoes	1	7
Architectural Coating (Painting)	6	4	2	0	Air Compressor (Pressure Washer)	1	6

Table 5. Construction Scenario Assumptions – Electric Power Generation, Solar PV Facilities (8/1/2021–12/15/2021)

Construction Phase	Duration (Days)	One-Way Vehicle Trips			Equipment Type	Quantity	Usage Hours/Day
		Average Daily Workers	Average Daily Vendor Trucks	Total One-Way Haul Trucks			
Perimeter Fence Installation	15	10	8	0	Skid Steer Loader	3	8
					Rough Terrain Forklifts	1	8
Site Preparation (Clearing and Grubbing)	20	14	10	8	Graders	2	8
					Rubber-Tired Dozer	1	8
					Rollers	2	8
					Tractors/Loaders/Backhoes	1	8
Underground Collector Line Installation	35	14	4	2	Excavator	2	8
					Roller	1	8
					Crawler Tractor (Ozzie Padder modeled as 175 horsepower Crawler Tractor)	1	8
System Installation (Racking, Panels, and Inverters)	66	116	14	16	Rough Terrain Forklifts	4	8
					Cranes	1	7
					Off-Highway Tractors (ATV modeled as off-highway tractor with 51 horsepower)	10	8
					Bore/Drill Rigs (Pile Driver modeled as Bore/Drill Rig)	2	8
Collector Substation	44	14	2	2	Rough Terrain Forklifts	2	8
					Cranes	1	8
					Generator Sets	1	8
					Tractors/Loaders/Backhoes	2	4
					Air Compressor	1	8
					Welders	1	4
Testing, Commissioning and Site Restoration	23	16	10	4	Graders	1	8
					Skid Steer Loader	1	8

Table 6. Construction Scenario Assumptions – Electric Power Generation, Gen-Tie Construction (12/15/2021–2/15/2022)

Construction Phase	Duration (Days)	One-Way Vehicle Trips			Equipment	Quantity	Usage Hours/Day
		Average Daily Workers	Average Daily Vendor Trucks	Total One-Way Haul Trucks	Type		
Site Preparation	28	8	2	0	Graders	2	8
					Rubber-Tired Dozers	1	8
					Rollers	1	8
					Tractors/Loaders/Backhoes	1	8
Above Ground Work (Conductor from solar to microgrid)	27	26	4	2	Excavator	2	8
					Roller	1	8
					Crawler Tractor (Ozzie Padder modeled as 175 horsepower Crawler Tractor)	1	8
					Rough Terrain Forklifts	1	8
Gen-Tie Interconnection Construction	22	14	2	2	Aerial Lifts (Line Truck modeled as Aerial Lift)	1	8
					Crane (Boom Truck modeled as Crane)	2	8
					Excavator (LoDrill modeled as Excavator)	1	8

Table 7. Construction Scenario Assumptions – Electric Power Generation, Sub-Transmission Line Construction (7/1/2022–10/22/2022)

Construction Phase	Duration (Days)	One-Way Vehicle Trips			Equipment	Quantity	Usage Hours/Day
		Average Daily Workers	Average Daily Vendor Trucks	Total One-Way Haul Trucks	Type		
Site Preparation	10	8	6	2	Graders	2	8
					Rubber-Tired Dozers	1	8
					Rollers	1	8
					Tractors/Loaders/Backhoes	1	8
Below Ground Construction of Sub-Transmission Line	39	26	4	2	Excavator	2	8
					Roller	1	8
					Crawler Tractor (Ozzie Padder modeled as 175 horsepower Crawler Tractor)	1	8

Table 7. Construction Scenario Assumptions – Electric Power Generation, Sub-Transmission Line Construction (7/1/2022–10/22/2022)

Construction Phase	Duration (Days)	One-Way Vehicle Trips			Equipment	Quantity	Usage Hours/Day
		Average Daily Workers	Average Daily Vendor Trucks	Total One-Way Haul Trucks	Type		
System Installation	32	16	8	6	Rough Terrain Forklifts	1	8
					Aerial Lifts (Line Truck modeled as Aerial Lift)	1	8
					Crane (Boom Truck modeled as Crane)	2	8
					Excavator (LoDrill modeled as Excavator)	1	8

3.3.2 Operational Emissions

The operational criteria air pollutant emissions were estimated from area sources, energy sources, and mobile sources using CalEEMod. Operational emissions from the natural-gas engines were estimated using a spreadsheet model based on vendor specifications for the four natural-gas fired internal combustion (IC) engines. The first full year of operation was conservatively assumed to be 2023. The calculation of area, energy, mobile, and stationary source criteria air pollutant emissions is explained below.

Area Sources

CalEEMod was used to estimate operational emissions from area sources, including emissions from consumer product use, architectural coatings, and landscape maintenance equipment. Emissions associated with natural gas usage in space heating, and water heating are calculated in the building energy use module of CalEEMod, as described in the following text. The project’s only building is the Powerhouse, an industrial building housing the IC engines BESS and control room, which would not include woodstoves or fireplaces (wood or natural gas). As such, area source emissions associated with hearths were not included.

Consumer products are chemically formulated products used by household and institutional consumers, including detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products. Other paint products, furniture coatings, or architectural coatings are not considered consumer products (CAPCOA 2017). Consumer product VOC emissions are estimated in CalEEMod based on the floor area of nonresidential buildings and on the default factor of pounds of VOC per building square foot per day. For the asphalt surface land use, CalEEMod estimates VOC emissions associated with use of parking surface degreasers based on a square footage of parking surface area and pounds of VOC per square foot per day. Regulation IV (Prohibitions), Rule 416 (Organic Solvents), limits the emissions of VOCs that are used as solvents within the MBARD jurisdiction.

VOC off-gassing emissions result from evaporation of solvents contained in surface coatings such as in paints and primers used during building maintenance. CalEEMod calculates the VOC evaporative emissions from application of nonresidential surface coatings based on the VOC emission factor, the building square footage, the assumed fraction of surface area, and the reapplication rate. The VOC emission factor is based on the VOC content of the surface coatings, and MBARD's Rule 426 Architectural Coatings governs the VOC content for interior and exterior coatings. The model default reapplication rate of 10% of area per year is assumed.

Landscape maintenance includes fuel combustion emissions from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers. The emissions associated from landscape equipment use are estimated based on CalEEMod default values for emission factors (grams per square foot of nonresidential building space per day) and number of summer days (when landscape maintenance would generally be performed) and winter days.

Energy Sources

As represented in CalEEMod, energy sources include emissions associated with building electricity and natural gas usage. Electricity use would contribute indirectly to criteria air pollutant emissions; however, the emissions from electricity use are only quantified for GHGs in CalEEMod, since criteria pollutant emissions occur at the site of the electric generation source.

Operational criteria air pollutant emissions from energy sources include natural gas combustion for appliances and space and water heating. The current Title 24, Part 6 standards, referred to as the 2019 Title 24 Building Energy Efficiency Standards, became effective on January 1, 2020. The current version of CalEEMod assumes compliance with the 2016 Title 24 Building Energy Efficiency Standards (CAPCOA 2017); however, the proposed project would be required to comply with the 2019 Title 24 Standards. Per the California Energy Commission Impact Analysis for the 2019 Update to the California Energy Efficiency Standards for Residential and Non-Residential Buildings, the first-year savings for newly constructed non-residential buildings are 197 gigawatt hours of electricity, 76.6 megawatts of demand, and 0.27 million therms of gas, representing reductions from the 2016 Title 24 standard of 10.7%, 9%, and 1%, respectively (CEC 2018). To take into account energy reductions associated with compliance with 2019 Title 24, the CalEEMod Title 24 electricity and natural gas values were reduced by 10.7% and 1%, respectively, for the proposed powerhouse building.

Mobile Sources

Mobile sources for the project would primarily be motor vehicles (automobiles and light-duty trucks) traveling to and from the project site primarily by project employees. Motor vehicles may be fueled with gasoline, diesel, or alternative fuels. Project specific vehicle trips were analyzed with default vehicle mix provided in CalEEMod 2016.3.2, which is based on CARB's Mobile Source Emissions Inventory model, EMFAC, version 2014. The proposed project is not anticipated to generate substantial vehicle trips. Vehicle trips include those associated with 10 onsite employees and an estimated 4 trucks per day providing facility service support and ammonia delivery for emission control equipment for the IC engines. Accordingly, a total of 28 one-way trips per day was assumed on weekdays and weekend days.

Stationary Sources

The proposed project includes the development of a powerhouse building as a location for the engines. Firm power generation will be provided by two 2.5 MW and two 4.0 MW natural gas engines, while one additional 2.5 MW

natural gas engine serving as a backup unit for use only when one other unit is off-line. Emissions of NO_x, VOC, and CO from the engines will meet MBARD Best BACT emission guidelines. Anhydrous ammonia will be used to reduce NO_x concentrations through SCR emissions control. Because the engines require constant cooling, the proposed project includes the use dry coolers, which require electric power to power the fans. The electricity for cooling will be a parasitic load to the facility, as such, the criteria and GHG emissions associated with this energy is accounted for in the engine operation and emissions estimated for the proposed project. For annual emissions estimations the four natural gas engines are estimated to operate for a total of 22,600,000 kWhr per year (total all four engines). Detailed engine vendor information and emissions calculations are included in Attachment A.

3.4 Impact Assessment

3.4.1 Would the project conflict with or obstruct implementation of the applicable air quality plan?

As described in the MBARD CEQA Guidelines (MBARD 2008), project emissions that are not accounted for in the AQMP's emission inventory are considered a significant cumulative impact to regional air quality. However, for construction of a project, construction projects using typical construction equipment (such as dump trucks, scrapers, bulldozers, compactors and front-end loaders) that temporarily emit precursors of O₃ are accounted for in the AQMP emissions inventory (MBARD 2008) and would not have a significant impact. As identified in Tables 2 through 7, the equipment required for construction of the proposed project would be typical and activities would not be unusually intense, and therefore proposed project construction emissions would not result in a significant impact. Furthermore, as determined in Impact 3.4.2 (discussed below), the proposed project would result in emissions during short-term construction and long-term operations that would not exceed the MBARD thresholds of significance. As such, construction and operation of the proposed project would not conflict with or obstruct implementation of the AQMP and this impact would be **less than significant**.

3.4.2 Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Construction Emissions

Construction of the proposed project would result in the addition of pollutants to the local airshed caused by soil disturbance, fugitive dust emissions, and combustion pollutants from on-site construction equipment and from worker vehicles and off-site vendor truck trips. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and for dust, the prevailing weather conditions. Therefore, such emission levels can only be approximately estimated with a corresponding uncertainty in precise ambient air quality impacts.

As discussed under 3.3.1, criteria air pollutant emissions associated with construction activity were quantified using CalEEMod. Construction emissions were calculated for the estimated worst-case day over the construction period associated with each phase and reported as the maximum daily emissions estimated during each year of construction (2021–2022). Construction schedule assumptions, including phase type, duration, and sequencing, were based on information provided by the applicant and are intended to represent a reasonable scenario based on the best information available. Default values provided in CalEEMod were used where detailed project information was not available.

Implementation of the proposed project would generate air pollutant emissions from entrained dust, off-road equipment, vehicle emissions, architectural coatings, and pavement application. Entrained dust results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil, resulting in PM₁₀ and PM_{2.5} emissions. The project would be required to comply with MBARD Rule 403 to control dust emissions generated during the building construction and grading activities. Standard construction practices that would be employed to reduce fugitive dust emissions include watering of the active sites approximately two times daily depending on weather conditions. Internal combustion engines used by construction equipment, haul trucks, vendor trucks (i.e., delivery trucks), and worker vehicles would result in emissions of ROG, NO_x, CO, PM₁₀, and PM_{2.5}. The application of architectural coatings, such as exterior application/interior paint and other finishes, and application of asphalt pavement would also produce VOC (ROG) emissions; however, the contractor is required to procure architectural coatings from a supplier in compliance with the requirements of MBARD's Rule 416 (Organic Solvents).

Table 8 presents the estimated maximum daily construction emissions generated during construction of the project in each year. The values shown are the maximum summer or winter daily emissions (i.e., worst-case) results from CalEEMod. Details of the emission calculations are provided in Attachment A.

Table 8. Estimated Maximum Daily Construction Emissions

Year	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
	pounds per day					
2021	10.89	107.18	97.67	0.18	15.74	7.20
2022	43.11	64.55	57.49	0.11	6.89	4.43
Maximum daily emissions	43.11	107.18	97.67	0.18	15.74	7.20
<i>MBARD threshold</i>	137	137	550	N/A	82	55
Threshold exceeded?	No	No	No	No	No	No

Notes: ROG = reactive organic gases; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM₁₀ = coarse particulate matter; PM_{2.5} = fine particulate matter; MBARD = Monterey Bay Air Resource District. See Attachment A for complete results.

The values shown are the maximum summer or winter daily emissions results from CalEEMod. PM₁₀ and PM_{2.5} includes exhaust and dust emissions, and accounts for a 55% fugitive dust reduction from water trucks, and assumes watering of active sites two times per day.

As shown in Table 8, maximum daily construction emissions would not exceed the MBARD significance thresholds for ROG, NO_x, CO, SO_x, PM₁₀, or PM_{2.5} during construction in any of the construction years. Furthermore, construction-generated emissions would be temporary and would not represent a long-term source of criteria air pollutant emissions.

Operational Emissions

Operation of the project would generate ROG, NO_x, CO, SO_x, PM₁₀, and PM_{2.5} emissions from the stationary IC engines; mobile sources, including vehicle trips; area sources, including the use of consumer products, architectural coatings for repainting, and landscape maintenance equipment; and energy sources, including combustion of fuels used for space and water heating. As discussed in Section 3.3.2, pollutant emissions associated with long-term operation of the project and operation were quantified using CalEEMod and through spreadsheet calculations for the IC engines based on vendor specifications. Mobile source emissions were estimated in CalEEMod based on an adjusted trip rate to reflect 28 one-way trips per day. CalEEMod default values were used to estimate emissions from area and energy sources for the project.

Table 9 presents the estimated maximum daily air pollutant emissions associated with operation of the project in year 2023. The values shown are the maximum summer or winter daily emissions results from CalEEMod and spreadsheet calculations for the natural gas fired IC engines (stationary sources). Details of the emission calculations are provided in Attachment A.

Table 9. Estimated Maximum Daily Operational Criteria Air Pollutant Emissions

Emission Source	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
	pounds per day					
Area	0.38	<0.01	<0.01	0	<0.01	<0.01
Energy	0.01	0.11	0.09	<0.01	<0.01	<0.01
Mobile	0.06	0.25	0.72	<0.01	0.18	0.05
Stationary	13.55	65.27	326.37	2.30	25.63	25.63
Total	131.00	65.63	327.18	2.30	25.81	25.68
<i>MBARD Threshold</i>	<i>137</i>	<i>137</i>	<i>550</i>	<i>N/A</i>	<i>82</i>	<i>55</i>
Threshold Exceeded?	No	No	No	No	No	No

Notes: ROG = reactive organic gases; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM₁₀ = coarse particulate matter; PM_{2.5} = fine particulate matter; MBARD = Monterey Bay Air Resource District

See Attachment A for complete results.

The values shown are the maximum summer or winter daily emissions results from CalEEMod. The project emissions reflect operational year 2023.

As shown in Table 9, the maximum daily operational emissions would not exceed the MBARD operational thresholds for ROG, NO_x, CO, SO_x, PM₁₀, and PM_{2.5}.

3.4.3 Would the project expose sensitive receptors to substantial pollutant concentrations?

Toxic Air Contaminants

In addition to impacts from criteria pollutants, project impacts may include emissions of pollutants identified by the state and federal government as TACs or hazardous air pollutants. State law has established the framework for California’s TAC identification and control program, which is generally more stringent than the federal program and aimed at TACs that are a problem in California. The state has formally identified more than 200 substances as TACs, including the federal hazardous air pollutants, and has adopted appropriate control measures for sources of these TACs. The following measures are required by state law to reduce DPM emissions:

- Fleet owners of mobile construction equipment are subject to the CARB Regulation for In-Use Off-Road Diesel Vehicles (13 CCR Chapter 9, Section 2449), the purpose of which is to reduce DPM and criteria pollutant emissions from in-use (existing) off-road diesel-fueled vehicles.
- All commercial diesel vehicles are subject to Title 13, Section 2485 of the California Code of Regulations (CCR), limiting engine idling time. Idling of heavy-duty diesel construction equipment and trucks during loading and unloading shall be limited to 5 minutes; electric auxiliary power units should be used whenever possible.

Health effects from carcinogenic air toxics are usually described in terms of cancer risk. “Incremental cancer risk” is the net increased likelihood that a person continuously exposed to concentrations of TACs resulting from a project

over a 9-, 30-, and 70-year exposure period will contract cancer based on the use of standard Office of Environmental Health Hazard Assessment risk-assessment methodology (OEHHA 2015). In addition, some TACs have noncarcinogenic effects.

The greatest potential for TAC emissions during construction would be diesel particulate matter (DPM) emissions from heavy equipment operations and heavy-duty trucks and the associated potential health impacts to sensitive receptors. DPM has established cancer risk factors and relative exposure values for long-term chronic health hazard impacts; however, no short-term, acute relative exposure level has been established for DPM. Total Project construction would last approximately 13 months, after which Project-related TAC emissions would cease. A 13-month construction schedule represents a short duration of exposure (3.6% of a 30-year exposure period) while cancer and chronic risk from DPM are typically associated with long-term exposure. Thus, the proposed project would not result in a long-term source of TAC emissions. In addition, the proposed project would not require the extensive operation of heavy-duty diesel construction equipment, which is subject to a CARB Airborne Toxics Control Measure for in-use diesel construction equipment to reduce DPM emissions and would not involve extensive use of diesel trucks, which are also subject to a CARB Airborne Toxics Control Measure.

As presented in Table 8, maximum daily total PM₁₀ emissions generated by construction equipment operation and trucks (exhaust particulate matter, or DPM, combined with fugitive dust generated by equipment operation and vehicle travel), would be well below the MBARD significance threshold. Moreover, construction of each of the proposed project would be short-term, after which project-related TAC emissions (e.g., diesel emissions) would cease. Of importance, the nearest sensitive receptors are located approximately 3,000 feet or greater to the east of the major microgrid components. For the distribution components that extend into the City of Gonzales, construction would proceed along the alignment and would not require the extensive use of heavy-duty construction equipment or diesel trucks in any one location over the duration of development, which would limit the exposure of any proximate individual sensitive receptor to TACs.

Due to the relatively short period of exposure at any individual sensitive receptor and the distance to individual sensitive receptors during construction and minimal exhaust particulate matter emissions generated, DPM TACs emitted during construction would not be expected to result in concentrations causing significant health risks, resulting in a **less-than-significant** impact.

In regard to long-term TAC emissions from operation, the primary source would be from operation of the natural-gas fired engines, which would be permitted by MBARD. MBARD Rule 200 requires any business or person to obtain an Authority to Construct and Permit to Operate before installing or operating new equipment or processes that may release or control air pollutants to ensure that all MBARD rules and regulations are considered. MBARD will be the permitting authority for the natural gas fired engines and will determine whether or not a health risk assessment (HRA) must be conducted for the facility during the permitting process of the emission units. As noted above, the nearest sensitive receptors are located approximately 3,000 feet or greater to the east of the major microgrid components, which would reduce the potential for sensitive receptors to be impacted by the project.

Based on the above operational considerations, TACs emitted during project operations would not be expected to result in concentrations causing significant health risks at proximate sensitive receptors, and would be a **less-than-significant** impact.

Valley Fever Exposure

As discussed above for TACs, the proposed project would not generate substantial fugitive dust during construction or operations. Thus, potential exposure of sensitive receptors to spores of the *Coccidioides immitis* fungus would be minimal. In addition, the applicant would require construction contractors to minimize fugitive dust through control measures such as watering all disturbed areas. Implementation of these best management practices would ensure fugitive dust impacts would be less than significant for the proposed project and also control the release of the *Coccidioides immitis* fungus from construction activities. In addition, the proposed project would be required to meet the requirements of Labor Code Section 6709 as follows:

“(a) The Legislature finds and declares that Valley Fever is caused by a microscopic fungus known as Coccidioides immitis, which lives in the top 2 to 12 inches of soil in many parts of the state. When soil is disturbed by activities such as digging, grading, driving, or is disturbed by environmental conditions such as or high winds, fungal spores can become airborne and can potentially be inhaled.

(b) This section applies to a construction employer with employees working at worksites in counties where Valley Fever is highly endemic, including, but not limited to, the Counties of Fresno, Kern, Kings, Madera, Merced, Monterey, San Joaquin, San Luis Obispo, Santa Barbara, Tulare, and Ventura, where work activities disturb the soil, including, but not limited to, digging, grading, or other earth moving operations, or vehicle operation on dirt roads, or high winds. Highly endemic means that the annual incidence rate of Valley Fever is greater than 20 cases per 100,000 persons per year.

(c) An employer subject to this section pursuant to subdivision (b) shall provide effective awareness training on Valley Fever to all employees by May 1, 2020, and annually by that date thereafter, and before an employee begins work that is reasonably anticipated to cause exposure to substantial dust disturbance. Substantial dust disturbance means visible airborne dust for a total duration of one hour or more on any day. The training may be included in the employer’s injury and illness prevention program training or as a standalone training program. The training shall include all of the following topics:

(1) What Valley Fever is and how it is contracted.

(2) High risk areas and types of work and environmental conditions during which the risk of contracting Valley Fever is highest.

(3) Personal risk factors that may create a higher risk for some individuals, including pregnancy, diabetes, having a compromised immune system due to causes including, but not limited to, human immunodeficiency virus (HIV) or acquired immunodeficiency syndrome (AIDS), having received an organ transplant, or taking immunosuppressant drugs such as corticosteroids or tumor necrosis factor inhibitors.

(4) Personal and environmental exposure prevention methods that may include, but are not limited to, water-based dust suppression, good hygiene when skin and clothing is soiled by dust, limiting contamination of drinks and food, working upwind from dusty areas

when feasible, wet cleaning dusty equipment when feasible, and wearing a respirator when exposure to dust cannot be avoided.

(5) The importance of early detection, diagnosis, and treatment to help prevent the disease from progressing. Early diagnosis and treatment are important because the effectiveness of medication is greatest in early stages of the disease.

(6) Recognizing common signs and symptoms of Valley Fever, which include fatigue, cough, fever, shortness of breath, headache, muscle aches or joint pain, rash on upper body or legs, and symptoms similar to influenza that linger longer than usual.

(7) The importance of reporting symptoms to the employer and seeking medical attention from a physician and surgeon for appropriate diagnosis and treatment.

(8) Common treatment and prognosis for Valley Fever.

(d) Training materials may include existing material on Valley Fever developed by a federal, state, or local agency, including, but not limited to, the federal Centers for Disease Control and Prevention, the State Department of Public Health, or a local health department.

(e) In the event that a county which has not been previously identified as being highly endemic is determined to be highly endemic per the annual report published by the State Department of Public Health, this section shall not apply in the initial year of that county's listing in the report. However, this section shall begin to apply to employers in that county in the year subsequent to the department's publication that initially identified the county as being highly endemic.

(f) This section shall apply to an employer whenever employment exists in connection with the construction, alteration, painting, repairing, construction maintenance, renovation, removal, or wrecking of any fixed structure or its parts."

In 2018, Monterey County had an incidence rate of 51.2 cases annually of Valley Fever per 100,000 people (CDPH 2018). *Coccidioides* is thought to grow best in soil after heavy rainfall and then disperse into the air most effectively during hot, dry conditions. However, based on the preceding considerations, the proposed project would not expose sensitive receptors to substantial Valley Fever exposure. This impact would be **less than significant**.

Health Effects of Criteria Air Pollutants

Construction and operational emissions of the proposed project would not exceed the MBARD thresholds for any criteria air pollutants, including ROG, NO_x, CO, SO_x, PM₁₀, and PM_{2.5}.

Health effects associated with O₃ include respiratory symptoms, worsening of lung disease leading to premature death, and damage to lung tissue (CARB 2021). ROG and NO_x are precursors to O₃, for which the NCCAB is designated as nonattainment with respect to the CAAQS. The contribution of ROG and NO_x to regional ambient O₃ concentrations is the result of complex photochemistry. The increases in O₃ concentrations in the NCCAB due to O₃ precursor emissions tend to be found downwind from the source location to allow time for the photochemical reactions to occur. However, the potential for exacerbating excessive O₃ concentrations would also depend on the time of year

that the precursor emissions would occur because exceedances of the O₃ AAQS tend to occur between April and October when solar radiation is highest. The holistic effect of a single project's emissions of O₃ precursors is speculative due to the lack of reliable and meaningful quantitative methods to assess this impact. This is particularly true of a project with less-than-significant emissions of precursors to O₃. However, the proposed project would generate ROG and NO_x exhaust emissions from typical construction activities and would not exceed the MBARD thresholds. Since these emissions are already accounted for in the emissions inventories of the state- and federally required air plans, they would not have a significant impact on the attainment and maintenance of the O₃ AAQS or result in potential health effects associated with O₃.

Construction and operation of the proposed project would not contribute to exceedances of the NAAQS and CAAQS for NO₂, which is a constituent of NO_x. Health effects that result from NO₂ and NO_x include lung irritation and enhanced allergic responses (CARB 2021), which could be experienced by nearby receptors during the periods of heaviest use of off-road construction equipment. In addition, existing NO₂ concentrations in the area are well below the NAAQS and CAAQS standards. Construction and operation of the proposed project would not create substantial, localized NO_x impacts. Therefore, the proposed project is not anticipated to result in potential health effects associated with NO₂ and NO_x.

Health effects associated with CO include chest pain in patients with heart disease, headache, light-headedness, and reduced mental alertness (CARB 2021). Mobile source impacts occur on two scales of motion. Regionally, project-related travel would add to regional trip generation and increase the VMT within the local airshed and the NCCAB. Locally, project-generated traffic would be added to the roadway system near the project sites during construction. If such traffic occurs during periods of poor atmospheric ventilation, is composed of a large number of vehicles "cold-started" and operating at pollution-inefficient speeds, and is operating on roadways already crowded with non-project traffic, there is a potential for the formation of microscale CO hotspots in the area immediately around points of substantially elevated and localized CO emissions, such as around congested intersections. During construction, the proposed project would result in CO emissions from construction worker vehicles, haul trucks, and off-road equipment. Title 40, Section 93.123(c)(5) of the CCR, Procedures for Determining Localized CO, PM₁₀, and PM_{2.5} Concentrations (hot-spot analysis), states that "CO, PM₁₀, and PM_{2.5} hot-spot analyses are not required to consider construction-related activities, which cause temporary increases in emissions. Each site which is affected by construction-related activities shall be considered separately, using established 'Guideline' methods. Temporary increases are defined as those which occur only during the construction phase and last five years or less at any individual site" (40 CCR Section 93.123). Since construction activities would be temporary, a construction hotspot analysis would not be required. Regarding operations, the proposed project would result in minimal (a total of 28 one-way trips per day from 10 onsite employees and an estimated 4 trucks per day) additional traffic trips and therefore, would not exceed the MBARD threshold of significance for localized impacts related to CO resulting in the formation of potential CO hotspots. Thus, the proposed project's CO emissions would not contribute to significant health effects associated with this pollutant.

Health effects associated with PM₁₀ include premature death and hospitalization, primarily for worsening of respiratory disease (CARB 2021). As depicted in Table 8 and Table 9, construction and operation of the proposed project would result in minimal emissions of PM₁₀ and PM_{2.5} and would not contribute to exceedances of the NAAQS and CAAQS for particulate matter or obstruct the NCCAB from coming into attainment for these pollutants. Since PM₁₀ is representative of the levels of DPM, the proposed project would also not result in substantial DPM emissions during construction and operation, and therefore, would not result in significant health effects related to DPM exposure. Due to the minimal contribution of PM₁₀ and PM_{2.5} during construction and operations, it is not anticipated that the proposed project would result in potential health effects related to particulate matter.

In summary, because the project would not result in exceedances of the MBARD significance thresholds during construction and operation, the potential health effects associated with criteria air pollutants are considered less than significant. Furthermore, there are numerous scientific and technological complexities associated with correlating criteria air pollutant emissions from an individual project to specific health effects or potential additional nonattainment days, and there are currently no modeling tools that could provide reliable and meaningful additional information regarding health effects from criteria air pollutants generated by individual projects within the MBARD jurisdiction.

The California Supreme Court's *Sierra Club v. County of Fresno* (2018) 6 Cal. 5th 502 decision (referred to herein as the Friant Ranch decision) (issued on December 24, 2018), addresses the need to correlate mass emission values for criteria air pollutants to specific health consequences, and contains the following direction from the California Supreme Court: "The Environmental Impact Report (EIR) must provide an adequate analysis to inform the public how its bare numbers translate to create potential adverse impacts or it must explain what the agency *does* know and why, given existing scientific constraints, it cannot translate potential health impacts further." (Italics original.) (*Sierra Club v. County of Fresno* 2018.) Currently, the MBARD, CARB, and EPA have not approved a quantitative method to reliably, meaningfully, and consistently translate the mass emission estimates for the criteria air pollutants resulting from the proposed project to specific health effects. In addition, there are numerous scientific and technological complexities associated with correlating criteria air pollutant emissions from an individual project to specific health effects or potential additional nonattainment days.

In connection with the judicial proceedings culminating in issuance of the Friant Ranch decision, the South Coast Air Quality Management District (SCAQMD) and the San Joaquin Valley Air Pollution Control District (SJVAPCD) filed amicus briefs attesting to the extreme difficulty of correlating an individual project's criteria air pollutant emissions to specific health impacts. Both SJVAPCD and SCAQMD have among the most sophisticated air quality modeling and health impact evaluation capabilities of the air districts in California. The key, relevant points from SCAQMD and SJVAPCD briefs is summarized herein.

In requiring a health impact type of analysis for criteria air pollutants, it is important to understand how O₃ and PM is formed, dispersed and regulated. The formation of O₃ and PM in the atmosphere, as secondary pollutants,³ involves complex chemical and physical interactions of multiple pollutants from natural and anthropogenic sources. The O₃ reaction is self-perpetuating (or catalytic) in the presence of sunlight because NO₂ is photochemically reformed from nitric oxide (NO). In this way, O₃ is controlled by both NO_x and ROG emissions (NRC 2005). The complexity of these interacting cycles of pollutants means that incremental decreases in one emission may not result in proportional decreases in O₃ (NRC 2005). Although these reactions and interactions are well understood, variability in emission source operations and meteorology creates uncertainty in the modeled O₃ concentrations to which downwind populations may be exposed (NRC 2005). Once formed, O₃ can be transported long distances by wind and due to atmospheric transport, contributions of precursors from the surrounding region can also be important (EPA 2008). Because of the complexity of O₃ formation, a specific tonnage amount of ROG or NO_x emitted in a particular area does not equate to a particular concentration of O₃ in that area (SJVAPCD 2015). PM can be divided into two categories: directly emitted PM and secondary PM. Secondary PM, like O₃, is formed via complex chemical reactions in the atmosphere between precursor chemicals such as SO_x and NO_x (SJVAPCD 2015). Because of the complexity of secondary PM formation, including the potential to be transported long distances by wind, the tonnage of PM-forming precursor emissions in an area does not necessarily result in an equivalent concentration of secondary PM

³ Air pollutants formed through chemical reactions in the atmosphere are referred to as secondary pollutants.

in that area (SJVAPCD 2015). This is especially true for individual projects, like the proposed project, where project-generated criteria air pollutant emissions are not derived from a single "point source," but from construction equipment and mobile sources (passenger cars and trucks) driving to, from and around the project sites.

Another important technical nuance is that health effects from air pollutants are related to the concentration of the air pollutant that an individual is exposed to, not necessarily the individual mass quantity of emissions associated with an individual project. For example, health effects from O₃ are correlated with increases in the ambient level of O₃ in the air a person breathes (SCAQMD 2015). However, it takes a large amount of additional precursor emissions to cause a modeled increase in ambient O₃ levels over an entire region (SCAQMD 2015). The lack of link between the tonnage of precursor pollutants and the concentration of O₃ and PM_{2.5} formed is important because it is not necessarily the tonnage of precursor pollutants that causes human health effects; rather, it is the concentration of resulting O₃ that causes these effects (SJVAPCD 2015). Indeed, the AAQS, which are statutorily required to be set by EPA at levels that are requisite to protect the public health, are established as concentrations of O₃ and PM_{2.5} and not as tonnages of their precursor pollutants (EPA 2018a). Because the ambient air quality standards are focused on achieving a particular concentration region-wide, the tools and plans for attaining the ambient air quality standards are regional in nature. For CEQA analyses, project-generated emissions are typically estimated in pounds per day or tons per year and compared to mass daily or annual emission thresholds. While CEQA thresholds are established at levels that the air basin can accommodate without affecting the attainment date for the AAQS, even if a project exceeds established CEQA significance thresholds, this does not mean that one can easily determine the concentration of O₃ or PM that will be created at or near the project site on a particular day or month of the year, or what specific health impacts will occur (SJVAPCD 2015).

In regard to regional concentrations and air basin attainment, the SJVAPCD emphasized that attempting to identify a change in background pollutant concentrations that can be attributed to a single project, even one as large as the entire Friant Ranch Specific Plan, is a theoretical exercise. The SJVAPCD brief noted that it "would be extremely difficult to model the impact on NAAQS attainment that the emissions from the Friant Ranch project may have" (SJVAPCD 2015). The situation is further complicated by the fact that background concentrations of regional pollutants are not uniform either temporally or geographically throughout an air basin, but are constantly fluctuating based upon meteorology and other environmental factors. SJVAPCD noted that the currently available modeling tools are equipped to model the impact of all emission sources in the San Joaquin Valley Air Basin on attainment (SJVAPCD 2015). The SJVAPCD brief then indicated that, "Running the photochemical grid model used for predicting O₃ attainment with the emissions solely from the Friant Ranch project (which equate to less than one-tenth of one percent of the total NO_x and VOC in the Valley) is not likely to yield valid information given the relative scale involved" (SJVAPCD 2015).

SCAQMD and SJVAPCD have indicated that it is not feasible to quantify project-level health impacts based on existing modeling (SCAQMD 2015; SJVAPCD 2015). Even if a metric could be calculated, it would not be reliable because the models are equipped to model the impact of all emission sources in an air basin on attainment and would likely not yield valid information or a measurable increase in O₃ concentrations sufficient to accurately quantify O₃-related health impacts for an individual project.

Nonetheless, following the Supreme Court's Friant Ranch decision, some EIRs where estimated criteria air pollutant emissions exceeded applicable air district thresholds have included a quantitative analysis of potential project-

generated health effects using a combination of a regional photochemical grid model (PGM)⁴ and the EPA Benefits Mapping and Analysis Program (BenMAP or BenMAP–Community Edition [CE])⁵. The publicly available health impact assessments (HIAs) typically present results in terms of an increase in health incidences and/or the increase in background health incidence for various health outcomes resulting from the project’s estimated increase in concentrations of O₃ and PM_{2.5}.⁶ To date, the five publicly available HIAs have concluded that the evaluated project’s health effects associated with the estimated project-generated increase in concentrations of O₃ and PM_{2.5} represent a small increase in incidences and a very small percent of the number of background incidences, indicating that these health impacts are negligible and potentially within the models’ margin of error. It is also important to note that while the results of the five available HIAs conclude that the project emissions do not result in a substantial increase in health incidences, the estimated emissions and assumed toxicity is also conservatively inputted into the HIA and thus, overestimate health incidences, particularly for PM_{2.5}.

As explained in the SJVAPCD brief and noted previously, running the PGM used for predicting O₃ attainment with the emissions solely from an individual project like the Friant Ranch project or the proposed project is not likely to yield valid information given the relative scale involved. The five available HIAs support the SJVAPCD’s brief contention that consistent, reliable, and meaningful results may not be provided by methods applied at this time. Accordingly, additional work in the industry and more importantly, air district participation, is needed to develop a more meaningful analysis to correlate project-level mass criteria air pollutant emissions and health effects for decision makers and the public. Furthermore, at the time of writing, no HIA has concluded that health effects estimated using the PGM and BenMAP approach are substantial provided that the estimated project-generated incidences represent a very small percent of the number of background incidences, potentially within the models’ margin of error.

In summary, because construction and operation of the proposed project would not result in the emissions of criteria air pollutants that would exceed the applicable MBARD significance thresholds, and because the MBARD thresholds are based on levels that the NCCAB can accommodate without affecting the attainment date for the AAQS and the AAQS are established to protect public health and welfare, it is anticipated that the proposed project would not result in health effects associated with criteria air pollutants. Because project-generated construction

⁴ The first step in the publicly available HIAs includes running a regional PGM, such as the Community Multiscale Air Quality (CMAQ) model or the Comprehensive Air Quality Model with extensions (CAMx) to estimate the increase in concentrations of O₃ and PM_{2.5} as a result of project-generated emissions of criteria and precursor pollutants. Air districts, such as the SCAQMD, use photochemical air quality models for regional air quality planning. These photochemical models are large-scale air quality models that simulate the changes of pollutant concentrations in the atmosphere using a set of mathematical equations characterizing the chemical and physical processes in the atmosphere (EPA 2018b).

⁵ After estimating the increase in concentrations of O₃ and PM_{2.5}, the second step in the five examples includes use of BenMAP or BenMAP-CE to estimate the resulting associated health effects. BenMAP estimates the number of health incidences resulting from changes in air pollution concentrations (EPA 2018c). The health impact function in BenMAP-CE incorporates four key sources of data: (i) modeled or monitored air quality changes, (ii) population, (iii) baseline incidence rates, and (iv) an effect estimate. All of the five example HIAs focused on O₃ and PM_{2.5}.

⁶ The following CEQA documents included a quantitative HIA to address Friant Ranch: (1) California State University Dominguez Hills 2018 Campus Master Plan EIR (CSUDH 2019), (2) March Joint Powers Association K4 Warehouse and Cactus Channel Improvements EIR (March JPA 2019), (3) Mineta San Jose Airport Amendment to the Airport Master Plan EIR (City of San Jose 2019), (4) City of Inglewood Basketball and Entertainment Center Project EIR (City of Inglewood 2019), and (5) San Diego State University Mission Valley Campus Master Plan EIR (SDSU 2019).

and operational emissions are less than the MBARD thresholds for all pollutants, impacts related to project-generated criteria air pollutant emissions are **less than significant**.

3.4.4 Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Construction and operation of the proposed project would result in various emissions; however, criteria air pollutants, fugitive dust, and TACs are addressed under Impact 3.4.2 and 3.4.3 above. As such, the Impact 3.4.4 analysis is focused on the potential for the project to result in odor impacts. The occurrence and severity of potential odor impacts depends on numerous factors. The nature, frequency, and intensity of the source; the wind speeds and direction; and the sensitivity of receiving location each contribute to the intensity of the impact. Although offensive odors seldom cause physical harm, they can be annoying and cause distress among the public and generate citizen complaints.

Odors would be generated from vehicles and/or equipment exhaust emissions during construction of the project. Odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment, architectural coatings, and asphalt pavement application. Such odors would disperse rapidly from the project site and generally occur at magnitudes that would not affect substantial numbers of people. Therefore, impacts associated with odors during construction would be considered **less than significant**.

Based on South Coast Air Quality Management District guidance (SCAQMD 1993), land uses and industrial operations associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The proposed project does not propose and would not engage in any of these activities or other potential activities that would generate operational odors. Therefore, the project would result in an odor impact that is **less than significant**.

3.5 Conclusions

In summary, the construction and operation of the proposed project would not result in the emissions of criteria air pollutants that would exceed the applicable MBARD significance thresholds and would not conflict with or obstruct implementation of the any applicable air quality plan. Since the MBARD thresholds are based on levels that the NCCAB can accommodate without affecting the attainment date for the AAQS and the AAQS are established to protect public health and welfare, it is anticipated that the proposed project would not result in health effects associated with criteria air pollutants and would not expose sensitive receptors to substantial pollutant concentrations, specifically TACs. Lastly, the project would not result in other emissions, specifically odors during construction and operation, that would adversely affect a substantial number of people. The air quality impact for all four CEQA Appendix G air quality thresholds would be less than significant.

4 Greenhouse Gas Emissions

4.1 Pollutant and Regulatory Overview

Greenhouse Gases and Global Warming Potential

A GHG is any gas that absorbs infrared radiation in the atmosphere; in other words, GHGs trap heat in the atmosphere. The greenhouse effect is a natural process that contributes to regulating the Earth's temperature. Global climate change concerns are focused on whether human activities are leading to an enhancement of the greenhouse effect. As defined in California Health and Safety Code section 38505(g), for purposes of administering many of the state's primary GHG emissions reduction programs, GHGs include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆), and nitrogen trifluoride (NF₃) (see also CEQA Guidelines, Section 15364.5). The relevant GHG emissions assessed herein include CO₂, CH₄, and N₂O.

The effect each GHG has on climate change is measured as a combination of the mass of its emissions and the potential of a gas or aerosol to trap heat in the atmosphere, known as its global warming potential (GWP), which varies among GHGs. Total GHG emissions are expressed as a function of how much warming would be caused by the same mass of CO₂. Thus, GHG emissions are typically measured in terms of metric tons (MT) of CO₂ equivalent (CO₂e). The CO₂e for a gas is derived by multiplying the mass of the gas by the associated GWP, such that MT of CO₂e = (MT of a GHG) × (GWP of the GHG). CalEEMod assumes that the GWP for CH₄ is 25, which means that emissions of 1 MT of CH₄ are equivalent to emissions of 25 MT of CO₂, and the GWP for N₂O is 298, based on the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report (IPCC 2007).

Gonzales Climate Action Plan

On August 20, 2018, the City adopted a Climate Action Plan (CAP), which provides a framework for reducing GHG emissions, creates a path to achieving long-term targets, and help the City become healthier and more sustainable (City of Gonzales 2018). The CAP recommends GHG emissions targets that are consistent with the reduction targets of the State of California and presents a number of reduction measures that will make it possible for the City to meet the recommended targets. Each reduction measure includes the time frame for implementing the measure (i.e., short-, medium-, or long-term), and the agency or department responsible for implementing the reduction measure. Based on the State CEQA Guidelines Section 15183.5, the CAP is considered a qualified GHG emissions reduction strategy (City of Gonzales 2018). Therefore, for the purpose of analyzing GHG emissions impacts, projects that conform with the City's CAP have already been analyzed under CEQA and may simply conclude that the project's potential impacts are less than significant.

Select Applicable State Regulations

Renewables Portfolio Standard (Senate Bills 1078, X1-2, 350, and 100)

Senate Bill (SB) 1078 (September 2002) established the Renewables Portfolio Standard (RPS) program, which required an annual increase in renewable generation by the utilities equivalent to at least 1% of sales, with an aggregate goal of 20% by 2017.

SB X1-2 expanded the RPS by establishing a renewable energy target of 20% of the total electricity sold to retail customers in California per year by December 31, 2013, and 33% by December 31, 2020, and in subsequent years.

SB 350 (October 2015) (Clean Energy and Pollution Reduction Act) further expanded the RPS by establishing a goal of 50% of the total electricity sold to retail customers in California per year by December 31, 2030.

SB 100 (2018) increased the standards set forth in SB 350, establishing that 44% of the total electricity sold to retail customers in California per year by December 31, 2024, 52% by December 31, 2027, and 60% by December 31, 2030, be secured from qualifying renewable energy sources.

California Building Energy Efficiency Standards, Title 24, Part 6

Title 24 of the California Code of Regulations was established in 1978 and serves to enhance and regulate California's building standards. While not initially promulgated to reduce GHG emissions, Part 6 of Title 24 specifically established Building Energy Efficiency Standards that are designed to ensure new and existing buildings in California achieve energy efficiency and preserve outdoor and indoor environmental quality. These energy efficiency standards are reviewed every few years by the Building Standards Commission and the California Energy Commission (and revised if necessary) (California Public Resources Code, Section 25402[b][1]). The regulations receive input from members of industry, as well as the public, with the goal of "reducing of wasteful, uneconomic, inefficient, or unnecessary consumption of energy" (California Public Resources Code, Section 25402). These regulations are carefully scrutinized and analyzed for technological and economic feasibility (California Public Resources Code, Section 25402[d]) and cost effectiveness (California Public Resources Code, Sections 25402[b][2] and [b][3]). As a result, these standards save energy, increase electricity supply reliability, increase indoor comfort, avoid the need to construct new power plants, and help preserve the environment.

Assembly Bill 1493

Assembly Bill (AB) 1493 (July 2002) was enacted in a response to the transportation sector accounting for more than half of California's CO₂ emissions. AB 1493 required the California Air Resources Board (CARB) to set GHG emission standards for passenger vehicles, light-duty trucks, and other vehicles determined by the State board to be vehicles that are primarily used for noncommercial personal transportation in California. The bill required that CARB set GHG emission standards for motor vehicles manufactured in 2009 and all subsequent model years. CARB adopted the standards in September 2004.

Assembly Bills 939 and 341

In 1989, AB 939, known as the Integrated Waste Management Act (California Public Resources Code, Sections 40000 et seq.), was passed because of the increase in waste stream and the decrease in landfill capacity. The statute established the California Integrated Waste Management Board, which oversees a disposal reporting system. AB 939 mandated a reduction of waste being disposed where jurisdictions were required to meet diversion goals of all solid waste through source reduction, recycling, and composting activities of 25% by 1995 and 50% by the year 2000. AB 341 amended the California Integrated Waste Management Act of 1989 to include a provision declaring that it is the policy goal of the State that not less than 75% of solid waste generated be source-reduced, recycled, or composted by the year 2020, and annually thereafter.

4.2 Significance Thresholds

The significance criteria used to evaluate the proposed project's GHG emissions impacts are based on the recommendations provided in Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.), as follows:

- A. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.
- B. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

Global climate change is a cumulative impact; a project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of GHGs. There are currently no established thresholds for assessing whether the GHG emissions of a project, such as the proposed project, would be considered a cumulatively considerable contribution to global climate change; however, all reasonable efforts should be made to minimize a project's contribution to global climate change. In addition, while GHG impacts are recognized exclusively as cumulative impacts (CAPCOA 2008), GHG emissions impacts must also be evaluated at a project level under CEQA.

The CEQA Guidelines do not prescribe specific methodologies for performing an assessment, do not establish specific thresholds of significance, and do not mandate specific mitigation measures. Rather, the CEQA Guidelines emphasize the lead agency's discretion to determine the appropriate methodologies and thresholds of significance consistent with the manner in which other impact areas are handled in CEQA (CNRA 2009a). The State of California has not adopted emission-based thresholds for GHG emissions under CEQA. The Governor's Office of Planning and Research's Technical Advisory, titled Discussion Draft CEQA and Climate Change Advisory, states that (OPR 2018):

[N]either the CEQA statute nor the CEQA Guidelines prescribe thresholds of significance or particular methodologies for performing an impact analysis. This is left to lead agency judgment and discretion, based upon factual data and guidance from regulatory agencies and other sources where available and applicable. Even in the absence of clearly defined thresholds for GHG emissions, such emissions must be disclosed and mitigated to the extent feasible whenever the lead agency determines that the project contributes to a significant, cumulative climate change impact.

Furthermore, the advisory document indicates that "in the absence of regulatory standards for GHG emissions or other scientific data to clearly define what constitutes a 'significant impact,' individual lead agencies may undertake a project-by-project analysis, consistent with available guidance and current CEQA practice." Section 15064.7(c) of the CEQA Guidelines specifies that "when adopting thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence."

As discussed previously, the City CAP is considered a qualified GHG reduction strategy based on the State CEQA Guidelines criteria Section 15183.5 (City of Gonzales 2018). Therefore, if the proposed project is consistent with the CAP, the project shall be considered to have a less than significant impact on GHG emissions. Using the CAP reduction measures as a guide, this analysis evaluates whether the proposed project would comply with the City's CAP.

In addition, proposed project emissions were compared to the MBARD adopted significance threshold of 10,000 MT CO₂e per year for stationary source projects (MBARD 2016) in order to provide additional context to the level of emissions generated by the proposed project.

In addition, since the proposed project is a power provider, the project's potential to conflict with the applicable RPS targets is evaluated.

Accordingly, the potential for the proposed project to generate GHG emissions that may have a significant impact on the environment and the potential for the project to conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs are addressed together based on the City's CAP, MBARD GHG threshold, and RPS targets.

4.3 Approach and Methodology

4.3.1 Construction Emissions

CalEEMod Version 2016.3.2 was used to estimate project-generated GHG emissions during construction. Construction of the project would result in GHG emissions primarily associated with use of off-road construction equipment, on-road hauling and vendor (delivery) trucks, and worker vehicles. All details for construction criteria air pollutants discussed in Section 3.1, Air Quality, are also applicable for the estimation of construction-related GHG emissions. As such, see Section 3.3.1 for a discussion of construction emissions calculation methodology and assumptions used in the GHG emissions analysis.

4.3.2 Operational Emissions

GHG emission sources associated with operation of the project include area, energy, mobile, solid waste, water, wastewater and stationary categories, as discussed below. As noted previously, the first full year of operation was conservatively assumed to be 2023.

Area

CalEEMod was used to estimate GHG emissions from the project's area sources, which include operation of gasoline-powered landscape maintenance equipment, which produce minimal GHG emissions. See Section 3.3.2 for a discussion of landscaping equipment emissions calculations. Consumer product use and architectural coatings result in VOC emissions, which are analyzed in air quality analysis only, and little to no GHG emissions.

Energy

The estimation of operational energy emissions was based on CalEEMod land use defaults and units or total area (i.e., square footage) of the assumed project land use. For nonresidential buildings, CalEEMod energy intensity value (electricity or natural gas usage per square foot per year) assumptions were based on the California Commercial End-Use Survey database. Emissions are calculated by multiplying the energy use by the utility carbon intensity (pounds of GHGs per kilowatt-hour for electricity or 1,000 British thermal units for natural gas) for CO₂ and other GHGs (CAPCOA 2017). As explained under the air quality methodology, the CalEEMod default energy consumption values, which assume compliance with 2016 Title 24 standards, were modified to reflect compliance with 2019 Title 24 standards.

CalEEMod default energy intensity factors (CO₂, CH₄, and N₂O mass emissions per kilowatt-hour) for PG&E is based on the value for PG&E's energy mix in 2019 based on PG&E's 2020 Corporate Responsibility and Sustainability Report. In the event that the microgrid transitions to self-power onsite facilities, the emission analysis performed, based on PG&E GHG intensity factors, is more conservative as the percentage of renewable energy of the microgrid (56%) is higher than the percentage of renewable energy of PG&E energy mix in 2019 (approximately 30%), based on PG&E's 2020 Corporate Responsibility and Sustainability Report.

Mobile Sources

All details for criteria air pollutants discussed in Section 3.3.2 are also applicable for the estimation of operational mobile source GHG emissions. Regulatory measures related to mobile sources include Assembly Bill 1493 (Pavley) and related federal standards. Assembly Bill 1493 required that the California Air Resources Board establish GHG emission standards for automobiles, light-duty trucks, and other vehicles determined by CARB to be vehicles that are primarily used for noncommercial personal transportation in the state. In addition, the National Highway Traffic Safety Administration and United States EPA have established corporate fuel economy standards and GHG emission standards, respectively, for automobiles and light-, medium-, and heavy-duty vehicles. Implementation of these standards and fleet turnover (replacement of older vehicles with newer ones) will gradually reduce emissions from the project's motor vehicles. The effectiveness of fuel economy improvements was evaluated by using the CalEEMod emission factors for motor vehicles in 2023 for the project to the extent it was captured in EMFAC 2014.

Solid Waste

The proposed project would generate solid waste, though minimal, and therefore, result in CO_{2e} emissions associated with landfill off-gassing. CalEEMod default values for solid waste generation were used to estimate GHG emissions associated with solid waste for the project. No diversion of solid waste was assumed; however, this is a conservative assumption as Assembly Bill 939 has a statewide goal of 50% diversion by 2000 and Assembly Bill 341 has a statewide goal of 75% diversion by 2020.

Water and Wastewater Treatment

Supply, conveyance, treatment, and distribution of water for the proposed project's additional building square footage require the use of electricity, which would result in associated indirect GHG emissions. Similarly, wastewater generated by the project requires the use of electricity for conveyance and treatment, along with GHG emissions generated during wastewater treatment. The indoor and outdoor water use and electricity consumption from water use and wastewater generation for the additional building square footage were estimated using CalEEMod default values for the project.

Stationary Sources

The proposed project includes firm power generation provided by two 2.5 MW and two 4.0 MW natural gas engines, while one additional 2.5 MW natural gas engine serving as a backup unit for use only when one other unit is off-line. Power generation from the solar energy facilities, a renewable energy source, produces no GHG emissions. Additionally, no offset benefits of the solar generation were included in the analysis. All details for criteria air pollutants discussed in Section 3.3.2 are also applicable for the estimation of operational stationary source GHG emissions. Annual emissions estimations are based on all four natural gas engines operating for a total of

22,600,000 kWhr per year (total all four engines). Detailed vendor information and emissions calculations are included in Attachment A.

Sulfur hexafluoride (SF₆) is a commonly used insulator in electricity transmission and distribution equipment. Because of its high GWP, CARB adopted the *Regulation for Reducing Sulfur Hexafluoride Emissions from Gas Insulated Switchgear* in 2010. As new technologies using lower or zero GWP insulators emerge, CARB staff are proposing to amend the current regulation to further reduce GHG emissions and to increase flexibility in complying with the standards. As of the date of this report, amendments to the regulation have not been adopted, therefore the 2010 regulations remain potentially applicable to the proposed project. The 2010 regulation limits SF₆ emissions from all active gas-insulated switchgear, from 2020 and later, to a maximum of 1.0% SF₆ annual emission rate. The regulation also establishes inventory measurement and calculation procedures, recordkeeping, and annual reporting requirements. However, the project applicant proposes to utilize SF₆ free alternative insulators for all micro grid components and therefore has no SF₆ emissions and is not subject to SF₆ regulations.

4.4 Impact Assessment

4.4.1 Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Project Consistency with the City's CAP

The City adopted their CAP in 2018, which is a qualified GHG emissions reduction plan under CEQA. In order to evaluate whether or not the project is consistent with the CAP, Table 10 outlines the CAP GHG reduction measures and the project's consistency with each measure.

As discussed in the CAP, Gonzales suffers from the lack of electrical grid capacity. PG&E maintains 115 kilovolt (kV) transmission lines from San Luis Obispo north to Soledad; it also maintains 115 kV transmission lines from Moss Landing south to Salinas. Between Salinas and King City, however, service is limited by 60 kV transmission lines. According to a preliminary engineering study plan prepared by PG&E and published in 2019, PG&E would need up to three years to provide service to the newest planned tenants at the Business Park.

Under CAP Chapter VII, implementation of the Gonzales Renewables Program includes the development of one or more electrical power microgrids to serve new industrial users in the Gonzales Agricultural Industrial Business Park that are affected by the PG&E grid capacity issue. Such a program would reduce the demand for conventional electrical power grid expansion and, over time, integrate into a next generation regional electrical power grid. The proposed project directly serves the implementation of an electrical power microgrid to serve new industrial users in the Gonzales Agricultural Industrial Business Park and therefore, is consistent with the CAP and fulfills a key goal of the CAP. Additional CAP consistency is discussed below.

Table 10. Proposed Project Consistency with City of Gonzales Climate Action Plan

CAP Measure	Measure Number	Proposed Project Consistency
Commercial and Industrial Emissions		
Gonzales Renewables Program	P-2.3	<i>Consistent.</i> The proposed project includes 45 megawatts (MW) of solar PV electric power generation.
Transportation Emission Reduction Measures		
Gonzales/MBCP EV Program	P-3.1	<i>No conflict.</i> The proposed project would not preclude the City and MBCP from developing a program aimed to introduce 600 new EVs into the Gonzales market. The proposed project would not preclude the City from implementing this measure.
Solid Waste Emission Reduction Measures		
Waste Diversion (75% Diversion)	P-4.1	<i>Consistent.</i> The proposed project would comply with all City and state regulations (including AB 341) related to solid waste generation, storage, and disposal.
Government Operations Emissions Reduction Measures		
MBCP 100% Carbon-Free Power	P-5.1	<i>No conflict.</i> The proposed project does not prevent the City from obtaining 100% Carbon-free power for Government operations. The proposed project would not preclude the City from implementing this measure.

Source: City of Gonzales 2018.

Notes: MBCP = Monterey Bay Community Power; EV = electric vehicle; AB = assembly bill.

As demonstrated in Table 10, the proposed project would be consistent with the applicable strategies and measures in the City CAP. In addition, since the City’s local GHG reduction targets contained in the CAP are consistent with the long-term GHG reduction goals of EO S-3-05, EO B-30-15, AB 32, and SB 32, the proposed project would also be consistent with these statewide GHG reduction goals. Therefore, the proposed project’s GHG contribution would not be cumulatively considerable and is less than significant.

MBARD Quantitative Threshold

Construction Emissions

Construction of the proposed project would result in GHG emissions, which are primarily associated with use of off-road construction equipment, vendor and haul trucks, and worker vehicles. CalEEMod was used to calculate the annual GHG emissions. A detailed depiction of the construction schedule—including information regarding phasing, equipment utilized during each phase, trucks, and worker vehicles—is included in Attachment A.

CalEEMod was used to calculate the annual GHG emissions based on the construction scenario described in Section 3.3.1. On-site sources of GHG emissions include off-road equipment and off-site sources including haul

trucks, vendor trucks and worker vehicles. Table 11 presents construction emissions for the proposed project from on-site and off-site emission sources.

Table 11. Estimated Annual Construction Greenhouse Gas Emissions

Year	CO ₂	CH ₄	N ₂ O	CO ₂ e
	Metric Tons per Year			
2021	534.73	0.14	0.00	538.23
2022	181.61	0.05	0.00	182.91
Total	716.34	0.19	0.00	721.14

Notes: CO₂ = carbon dioxide; CH₄ = methane; N₂O = nitrous oxide; CO₂e = carbon dioxide equivalent. See Attachment A for complete results.

As shown in Table 11, the estimated total GHG emissions during proposed project construction would be approximately 721 MT CO₂e over the construction period.

Estimated project-generated construction emissions amortized over 30 years would be approximately 24 MT CO₂e per year. As with project-generated construction air pollutant emissions, GHG emissions generated during construction of the proposed project would be short-term in nature, lasting only for the duration of the construction period, and would not represent a long-term source of GHG emissions. Because there is no separate GHG threshold for construction, the evaluation of significance is discussed in the following operational emissions analysis.

Operational Emissions

Operation of the project would generate GHG emissions through motor vehicle trips; landscape maintenance equipment operation (area source); energy use (natural gas and electricity); solid waste disposal; water supply, treatment, and distribution and wastewater treatment; and stationary natural gas fire engines. Operation of the solar energy facilities, a renewable energy source, produces no GHG emissions. CalEEMod and spreadsheet calculations were used to calculate the annual GHG emissions based on the operational assumptions described in Section 3.3.2. The estimated operational project-generated GHG emissions from area sources, energy usage, motor vehicles, solid waste generation, water usage and wastewater generation, and the natural gas fired IC engines (stationary sources), are shown in Table 12.

Table 12. Estimated Annual Operational Greenhouse Gas Emissions

Emission Source	CO ₂	CH ₄	N ₂ O	CO ₂ e
	Metric Tons per Year			
Area	<0.01	0.00	0.000	<0.01
Energy	34.19	<0.01	<0.01	34.45
Mobile	34.82	<0.01	0.00	34.86
Solid waste	3.78	0.22	0.00	9.35
Water supply and wastewater	3.12	0.11	<0.01	6.76
Stationary	9,799.32	4.62	5.51	9,809.45
Total	9,875.23	4.95	5.51	9,894.87
<i>Amortized construction emissions</i>				24.04
Total operational + amortized construction GHGs				9,918.91

Table 12. Estimated Annual Operational Greenhouse Gas Emissions

Emission Source	CO ₂	CH ₄	N ₂ O	CO ₂ e
	Metric Tons per Year			
	MBARD GHG Threshold			10,000
	Threshold Exceeded?			No

Notes: GHG = greenhouse gas; CO₂ = carbon dioxide; CH₄ = methane; N₂O = nitrous oxide; CO₂e = carbon dioxide equivalent; <0.01 = reported value less than 0.01.

See Attachment A for complete results.

The project emissions reflect operational year 2023.

As shown in Table 12, estimated annual project-generated GHG emissions would be approximately 9,914 MT CO₂e per year as a result of project operation; with amortized construction emissions, total project emissions would be approximately 9,938 MT CO₂e per year. Annual operational GHG emissions with amortized construction emissions would not exceed the MBARD threshold of 10,000 MT CO₂e per year.

Project’s Potential to Conflict with the State’s Renewables Portfolio Standard

As discussed in Section 4.1, the state’s RPS program was established in 2002 (SB 1078) and was expanded via multiple senate bills, with the latest being SB 100. The key goal of the RPS program is to increase renewable energy generation from qualified utilities overtime. Because the proposed project’s buildout year is assumed to be 2023, the applicable near-term RPS milestones are the following:

- 33% renewables by December 31, 2020 (SB X1-2)
- 44% renewables by December 31, 2024 (SB 100)

The proposed project would generate electricity through solar supply and natural gas engine supply. Based on the best available information at this time, it is estimated that the project’s electricity supply breakdown would be as follows:

- Solar Supply: 39,960,600 kWhr
- Engine Supply: 22,600,000kWhr
- Total Microgrid Demand/Supply: 62,560,600 kWhr

Based on the above electricity supply breakdown, the percent of renewables and non-renewable energy sources is estimated to be as follows:

- Renewables: 64%
- Non-Renewables: 36%

As such, the proposed project would meet and exceed the 2020 RPS target of 33% renewables by December 31, 2020 and would meet and exceed the 2024 RPS target of 44% renewables by December 31, 2024. While a longer-term RPS milestone, the proposed project would also meet the 2027 RPS target of 52% renewables by December 31, 2027, demonstrating substantial progress towards continuing to meet future RPS targets. Therefore, the proposed project would not conflict with the state’s RPS program.

Summary

Based on the considerations outlined above, the proposed project would not generate GHGs, either directly or indirectly, that may have a significant impact on the environment, or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, and potential impacts would be **less than significant**.

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Memorandum

Subject: Gonzales Microgrid Project Air Quality and Greenhouse Gas Emissions Assessment

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Attachment A

Detailed Vendor Information and Emissions Calculations

G3520H

GAS ENGINE SITE SPECIFIC TECHNICAL DATA Concentric Power Baseline Data Set



GENSET APPLICATION

ENGINE SPEED (rpm):	1500	RATING STRATEGY:	HIGH RESPONSE
COMPRESSION RATIO:	12.1	RATING LEVEL:	CONTINUOUS
AFTERCOOLER TYPE:	SCAC	FUEL SYSTEM:	CAT LOW PRESSURE
AFTERCOOLER - STAGE 2 INLET (°F):	118		WITH AIR FUEL RATIO CONTROL
AFTERCOOLER - STAGE 1 INLET (°F):	192	SITE CONDITIONS:	
JACKET WATER OUTLET (°F):	210	FUEL:	Nat Gas
ASPIRATION:	TA	FUEL PRESSURE RANGE(psig):	2.0-5.0
COOLING SYSTEM:	JW+OC+1AC, 2AC+GB	FUEL METHANE NUMBER:	84.7
CONTROL SYSTEM:	ADEM4 W/ IM	FUEL LHV (Btu/gal):	905
EXHAUST MANIFOLD:	DRY	ALTITUDE(ft):	500
COMBUSTION:	LOW EMISSION	MAXIMUM INLET AIR TEMPERATURE(°F):	77
NOx EMISSION LEVEL (g/bhp-hr NOx):	1.0	STANDARD RATED POWER:	3448 bhp@1500rpm
SET POINT TIMING:	22	POWER FACTOR:	1.0
		VOLTAGE(V):	4160-13800

RATING	NOTES	LOAD	SITE RATING AT MAXIMUM INLET AIR TEMPERATURE			
			100%	100%	75%	50%
GENSET POWER (WITH GEARBOX, WITHOUT FAN)	(1)(2)	okW	2485	2485	1864	1243
GENSET POWER (WITH GEARBOX, WITHOUT FAN)	(1)(2)	kVA	2485	2485	1864	1243
ENGINE POWER (WITHOUT GEARBOX, WITHOUT FAN)	(2)	bhp	3448	3448	2597	1746
INLET AIR TEMPERATURE		°F	77	77	77	77
GENERATOR EFFICIENCY	(1)	%	97.5	97.5	97.0	96.2
GENSET EFFICIENCY (ISO 3046/1)	(3)(4)	%	44.5	44.5	43.3	41.0
THERMAL EFFICIENCY	(3)(5)	%	41.1	41.1	42.6	45.6
TOTAL EFFICIENCY	(3)(6)	%	85.6	85.6	85.9	86.6

ENGINE DATA						
GENSET FUEL CONSUMPTION (ISO 3046/1)	(7)	Btu/kWh-hr	7670	7670	7879	8313
GENSET FUEL CONSUMPTION (NOMINAL)	(7)	Btu/kWh-hr	7934	7934	8151	8599
ENGINE FUEL CONSUMPTION (NOMINAL)	(7)	Gal/bhp-hr	5720	5720	5850	6121
AIR FLOW (@inlet air temp, 14.7 psia)	(8)	ft ³ /min	6324	6324	4710	3157
AIR FLOW (WET)	(8)	ft ³ /min	28042	28042	20884	13997
FUEL FLOW (60°F, 14.7 psia)	(8)	scfm	363	363	280	197
INLET MANIFOLD PRESSURE	(9)	in Hg(abs)	135.0	135.0	101.4	69.1
EXHAUST TEMPERATURE - ENGINE OUTLET	(10)	°F	735	735	797	899
EXHAUST GAS FLOW (@engine outlet temp, 14.5 psia)	(11)	ft ³ /min	15141	15141	11884	8637
EXHAUST GAS MASS FLOW (WET)	(11)	lb/hr	29036	29036	21650	14537
MAX INLET RESTRICTION	(12)	in H ₂ O	14.47	14.47	10.13	7.35
MAX EXHAUST RESTRICTION	(12)	in H ₂ O	20.09	20.09	11.42	5.46

EMISSIONS DATA - ENGINE OUT						
NOx (as NO ₂)	(13)(14)	g/bhp-hr	1.00	1.00	1.00	1.00
CO	(13)(14)	g/bhp-hr	1.53	1.53	1.47	1.43
THC (mol. wt. of 15.84)	(13)(14)	g/bhp-hr	2.28	2.28	2.38	2.30
NMHC (mol. wt. of 15.84)	(13)(14)	g/bhp-hr	0.32	0.32	0.33	0.32
NMNEHC (VOCs) (mol. wt. of 15.84)	(13)(14)(15)	g/bhp-hr	0.25	0.25	0.26	0.25
HCHO (Formaldehyde)	(13)(14)	g/bhp-hr	0.21	0.21	0.21	0.22
CO ₂	(13)(14)	g/bhp-hr	399	399	406	416
EXHAUST OXYGEN	(13)(16)	% DRY	9.7	9.7	9.4	8.9

HEAT REJECTION						
LHV INPUT	(17)	Btu/min	328658	328658	253223	178109
HEAT REJ. TO JACKET WATER (JW)	(18)	Btu/min	33895	33895	29181	24004
HEAT REJ. TO ATMOSPHERE	(18)	Btu/min	4321	4321	3611	2900
HEAT REJ. TO LUBE OIL (OC)	(18)	Btu/min	12742	12742	11451	9853
HEAT REJECTION TO EXHAUST (LHV TO 248°F)	(18)	Btu/min	62667	62667	52580	42206
HEAT REJ. TO A/C - STAGE 1 (1AC)	(18)(20)	Btu/min	25753	25753	14455	5026
HEAT REJ. TO A/C - STAGE 2 (2AC)	(18)(20)	Btu/min	16726	16726	11730	6383
HEAT REJECTION FROM GEARBOX (GB)	(18)	Btu/min	1155	1155	870	585
PUMP POWER	(19)	Btu/min	859	859	859	859

COOLING SYSTEM SIZING CRITERIA						
TOTAL JACKET WATER CIRCUIT (JW+OC+1AC)	(21)	Btu/min	79601	79601		
TOTAL STAGE 2 AFTERCOOLER CIRCUIT (2AC+GB)	(21)	Btu/min	18768	18768		
HEAT REJECTION TO EXHAUST (LHV TO 248°F)	(21)	Btu/min	68934	68934		
A cooling system safety factor of 0% has been added to the cooling system sizing criteria.						

MINIMUM HEAT RECOVERY						
TOTAL JACKET WATER CIRCUIT (JW+OC+1AC)	(22)	Btu/min	65165	65165		
TOTAL STAGE 2 AFTERCOOLER CIRCUIT (2AC+GB)	(22)	Btu/min	16987	16987		
HEAT REJECTION TO EXHAUST(LHV TO 248°F)	(22)	Btu/min	56402	56402		

CONDITIONS AND DEFINITIONS
 Engine rating obtained and presented in accordance with ISO 3046/1, adjusted for fuel, site altitude and site inlet air temperature. 100% rating at maximum inlet air temperature is the maximum engine capability for the specified fuel at site altitude and maximum site inlet air temperature. Maximum rating is the maximum capability at the specified aftercooler inlet temperature for the specified fuel at site altitude and reduced inlet air temperature. Lowest load point is the lowest continuous duty operating load allowed. No overload permitted at rating shown.

For more information, consult page three.
 PREPARED BY: Mike Short, Peterson Power Systems
 Data generated by Gas Engine Rating Pro Version 5.05.00
 Ref. Data Set EM0917-03-001, Printed 26Oct2015

GENSET APPLICATION

NOTES

1. Generator efficiencies, power factor, and voltage are based on specified generator. [Genset Power (kW) is calculated as: (Engine Power (bkW) - Gearbox Power (bkW)) x Generator Efficiency], [Genset Power (kVA) is calculated as: (Engine Power (bkW) - Gearbox Power (bkW)) x Generator Efficiency / Power Factor]
2. Rating is with two engine driven water pumps. Tolerance is (+)3, (-)0% of full load. All derates are applied without pumps, then pump power is subtracted to obtain final rating.
3. Efficiency represents a Closed Crankcase Ventilation (CCV) system installed on the engine.
4. Genset Efficiency published in accordance with ISO 3046/1.
5. Thermal Efficiency is calculated based on energy recovery from the jacket water, lube oil, 1st stage aftercooler, and exhaust to 248°F with engine operation at ISO 3046/1 Genset Efficiency, and assumes unburned fuel is converted in an oxidation catalyst.
6. Total efficiency is calculated as: Genset Efficiency + Thermal Efficiency. Tolerance is ±10% of full load data.
7. ISO 3046/1 Genset fuel consumption tolerance is (+)5, (-)0% at the specified power factor. Nominal genset and engine fuel consumption tolerance is ± 1.5% of full load data at the specified power factor.
8. Air flow value is on a "wet" basis. Flow is a nominal value with a tolerance of ± 5 %.
9. Inlet manifold pressure is a nominal value with a tolerance of ± 5 %.
10. Exhaust temperature is a nominal value with a tolerance of (+)63°F, (-)54°F.
11. Exhaust flow value is on a "wet" basis. Flow is a nominal value with a tolerance of ± 5 %.
12. Inlet and Exhaust Restrictions are maximum allowed values at the corresponding loads. Increasing restrictions beyond what is specified will result in a significant engine derate.
13. Emissions data is at engine exhaust flange prior to any after treatment.
14. Emission values are based on engine operating at steady state conditions. Fuel methane number cannot vary more than ± 3. NOx tolerances are ± 18 % of specified value. All other emission values listed are higher than nominal levels to allow for instrumentation, measurement, and engine-to-engine variations. They indicate "Not to Exceed" values. THC, NMHC, and NMNEHC do not include aldehydes.
15. VOCs - Volatile organic compounds as defined in US EPA 40 CFR 60, subpart JJJJ
16. Exhaust Oxygen level is the result of adjusting the engine to operate at the specified NOx level. Tolerance is ± 0.5.
17. LHV rate tolerance is ± 1.5%.
18. Heat rejection values are representative of site conditions. Tolerances, based on treated water, are ± 10% for jacket water circuit, ± 50% for atmosphere, ± 20% for lube oil circuit, ± 10% for exhaust, ± 5% for aftercooler circuit, and ± 5% for Gearbox.
19. Pump power includes engine driven jacket water and aftercooler water pumps. Engine brake power includes effects of pump power.
20. Aftercooler heat rejection is nominal for site conditions and does not include an aftercooler heat rejection factor. Aftercooler heat rejection values at part load are for reference only.
21. Cooling system sizing criteria represent the expected maximum circuit heat rejection for the ratings at site, with applied plus tolerances. Total circuit heat rejection is calculated using formulas referenced in the notes on the standard tech data sheet with the following qualifications. Aftercooler heat rejection data (1AC & 2AC) is based on the standard rating. Jacket Water (JW), Oil Cooler (OC), and Gearbox (GB) heat rejection values are based on the respective site or maximum column. Aftercooler heat rejection factors (ACHRF) are specific for the site elevation and inlet air temperature specified in the site or maximum column, referenced from the table on the standard data sheet.
22. Minimum heat recovery values represent the expected minimum heat recovery for the site, with applied minus tolerances. Do not use these values for cooling system sizing.

Reference Data Sheet



Technical data

4000 kWel; 4160 V, 60 Hz; Natural gas, MN = 80

Design conditions

Comb. air temperature / rel. Humidity:	[°F] / [%]	77 / 60
Altitude:	[ft]	328
Exhaust temp. after heat exchanger:	[°F]	248
NO _x Emission (tolerance - 8%):	[g/bhph]	0,94

Fuel gas data: 2)

Methane number:	[-]	80
Lower calorific value:	[BTU/ft ³]	983,74
Gas density:	[lb/ft ³]	0,05
Standard gas:	Natural gas, MN = 80	

Genset:

Engine:	CG260-16	
Speed:	[1/min]	900
Configuration / number of cylinders:	[-]	V / 16
Bore / Stroke / Displacement:	[in] / [in] / [in ³]	10,2 / 12,6 / 16589
Compression ratio:	[-]	12,0
Mean piston speed:	[ft/s]	31,496063
Mean lube oil consumption at full load:	[lb/hr]	2,64550265
Engine-management-system:	[-]	TEM EVO

Generator:

Marelli MJH 800 LA8

Voltage / voltage range / cos Phi:	[V] / [%] / [-]	4160 / ±10 / 1
Speed / frequency:	[1/min] / [Hz]	900 / 60

Energy balance

Load:	[%]	100	75	50
Electrical power COP acc. ISO 8528-1:	[kW]	4000	3000	2000
Engine jacket water heat:	[BTU/min±8%]	71833	52025	34664
Intercooler LT heat:	[BTU/min±8%]	20263	14458	9278
Lube oil heat:	[BTU/min±8%]	25898	19979	15710
Exhaust heat with temp. after heat exchanger:	[BTU/min±8%]	122320	102569	76842
Exhaust temperature:	[°F]	840	907	966
Exhaust mass flow, wet:	[lb/hr]	47040	35292	24083
Combustion mass air flow:	[lb/hr]	45471	34077	23228
Radiation heat engine / generator:	[BTU/min±8%]	12238 / 5806	11839 / 5066	11042 / 4554
Fuel consumption:	[BTU/min+5%]	519449	401796	283118
Electrical / thermal efficiency:	[%]	43,8 / 42,4	42,5 / 43,5	40,2 / 45,0
Total efficiency:	[%]	86,2	86,0	85,2

System parameters 1)

Ventilation air flow (comb. air incl.) with ΔT = 15K	[lb/hr]	257300
Combustion air temperature minimum / design:	[°F]	41 / 77
Exhaust back pressure from / to:	[inWC]	12 / 20
Maximum pressure loss in front of air cleaner:	[inWC]	2
Zero-pressure gas control unit selectable from / to: 2)	[inWC]	8 / 80
Pre-pressure gas control unit selectable from / to: 2)	[psi]	7 / 145
Air bottle, volume / pressure	[ft ³] / [psi]	71 / 435
Starter motor:	[ft ³ /s] / [psi]	28 / 232
Lube oil content engine / base frame:	[gal(US)]	489 / -
Dry weight engine / genset:	[lb]	54873 / 113428

Cooling system

Glycol content engine jacket water / intercooler:	[% Vol.]	0 / 35
Water volume engine jacket / intercooler:	[gal(US)]	151 / 13,5
KVS / Cv value engine jacket water / intercooler:	[ft ³ /h]	3178 / 2189
Jacket water coolant temperature in / out:	[°F]	172 / 194
Intercooler coolant temperature in / out:	[°F]	104 / 113
Engine jacket water flow rate from / to:	[gpm]	396 / 506
Water flow rate engine jacket water / intercooler:	[gpm]	410 / 286
Water pressure loss engine jacket water / intercooler:	[psi]	15 / 17
Lube oil temp. engine inlet max. / lube oil flow rate:	[°F] / [gpm]	176 / 498

1) See also "Layout of power plants":

2) See also Techn. Circular 0199-99-3017

3332506EC

Frequency band f [Hz]	25	31,5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1k	1.25k	1.6k	2k	2.5k	3.15k	4k	5k	6.3k	8k	10k	12.5k	16k	L _{WA} [dB(A)]	S [m ²]
Air-borne noise 3) L _{W, Terz} [dB(lin)]	104	105	109	112	113	111	113	120	120	116	114	115	115	110	110	111	110	108	109	109	112	113	118	119	116	110	107	104	99	126	224
Exhaust noise 4) L _{W, Octave} [dB(lin)]				143			136			134			133			129			127			125			121				136	16,9	

3) DIN EN ISO 3746

4) DIN 45635-11 Appendix A (±3 dB)

L_w: Sound power level

S: Area of measurement surface (S_p=1m²)

Table A-1: Performance and Emission Data for Natural Gas-fired ICE Electric Generator

Parameter	Units	Values				Normal Operation: 2 - 2,500 KW Engines and 2 - 4,000 KW Engines (1 - 2,500 remains offline a backup only)
		2,500 KW Engines		4,000 KW Engines		
Performance						
Number of Units		1	2	1	2	4
Rating	kW/Unit	2,571	5,142	4,000	8,000	
Rating	hp/Unit	3,448	6,896	5,364	10,728	
Fuel Consumption per Unit						
Blended Load	BTU/kW-hr	8,043	8,043	8,181	8,181	
Heat Input (HHV)	MMBtu/hr	20.7	41.4	32.7	65.5	
Heat Content (HHV-Btu/scf)	Btu/scf	1,004	1,004	1,004	1,004	
Fuel Usage	scf/hr	21,780	43,560	31,043	124,171	
	scfm	363	726	517	2,070	
Operation per Unit						
Maximum Daily Hours	(hr/day)	24	24	24	24	
Maximum Fuel Usage per Day Based on 100% Load	scf/day	522,720	1,045,440	745,026	2,980,106	
Emissions (Per Unit)						
SO ₂ -	Basis (Typical Fuel Content)	grains S/100 scf	0.20	0.20	0.20	0.20
	Conversion of S to SO ₂	%	100.00	100.00	100.00	100.00
	Molecular weight SO ₂ / S (64/32)		2.00	2.00	2.00	2.00
	Emission rate (100% Load)	lb/hr	0.01	0.02	0.02	0.07
	100% Load for 24 Hours	lb/day	0.30	0.60	0.43	1.70
NO _x -	Basis (BACT MONTEREY BAY AIR RESOURCES DISTRICT)	g/hp-hr	0.07	0.07	0.07	0.07
	Emission rate (100% Load) Controlled	lb/hr	0.53	1.06	0.83	1.66
	100% Load for 24 Hours	lb/day	12.77	25.54	19.87	39.73
CO -	Basis (BACT MONTEREY BAY AIR RESOURCES DISTRICT)	g/hp-hr	0.35	0.35	0.35	0.35
	Emission rate (100% Load)	lb/hr	2.66	5.32	4.14	8.28
	100% Load for 24 Hours	lb/day	63.85	127.70	99.33	198.67
VOC -	Basis (Applicant Specified)	g/hp-hr	0.14	0.14	0.14	0.14
	Emission rate (100% Load)	lb/hr	1.06	2.13	1.66	3.31
	100% Load for 24 Hours	lb/day	25.54	51.08	39.73	79.47
PM/PM ₁₀ /PM _{2.5} -	Basis (EPA AP-42)	lb/MMBtu	0.01	0.01	0.01	0.01
	Emission rate (100% Load)	lb/hr	0.21	0.41	0.33	0.65
	100% Load for 24 Hours	lb/day	4.96	9.93	7.85	15.71

Table A-2: Greenhouse Gas (GHG) Emission Data for Natural Gas-fired ICE Electric Generator - Maximum Annual Operation

Emission Unit/ Pollutant	Emission Factor (lb/MMBtu)	Annual Heat Input (MMBtu/yr)*	Annual GHG Emissions (TPY)	CO₂e Emissions Rate (TPY)	CO₂e Emissions Rate (Metric TPY)
Natural Gas-Fired ICE Electrical Generator					
CO₂	116.86	184,875.15	10801.89	10,801.89	9,799.32
CH₄	0.0022	184,875.15	0.20	5.09	4.62
N₂O	0.0002	184,875.15	0.02	6.07	5.51
				Total 10,813.06	9,809.45

* based on engine operation equivalent to:
 Engine Heat Rate (blended) 22,600,000 kWhr/yr
 8,180 BTU/kWh

(Total all units)

Reference:

Table C-2, Subpart C, 40 CFR 98. Emission factors in kg/MMBtu

CH₄ and N₂O are multiplied by CO₂e factor

Pollutant	Natural Gas		Pollutant	CO₂e Factor
CO ₂	53.02	kg/MMBtu	CH ₄	25
CH ₄	0.001	kg/MMBtu	N ₂ O	298
N ₂ O	0.0001	kg/MMBtu		

Conversion factor from kg/MMBtu to lb/MMBtu: 2.204

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	15.00	1000sqft	0.34	15,000.00	0
Other Asphalt Surfaces	1.88	Acre	1.88	81,892.80	0
Parking Lot	10.00	Space	0.09	4,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.6	Precipitation Freq (Days)	55
Climate Zone	4			Operational Year	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

- Project Characteristics - Construction only analysis.
- Land Use - Construction only analysis.
- Construction Phase - Provided by applicant.
- Off-road Equipment - Per applicant provided information.
- Off-road Equipment - Per applicant.
- Off-road Equipment - Applicant provided information.
- Off-road Equipment - Per applicant.
- Off-road Equipment - Per applicant.

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Off-road Equipment - Per applicant. Ozzie Padder modeled as 175 hp Crawler Tractor.

Off-road Equipment - Per applicant.

Off-road Equipment - Per applicant.

Off-road Equipment - Per applicant. Ozzie Padder modeled as 175 hp Crawler Tractor.

Off-road Equipment - Per applicant. Line Truck modeled as Aerial Lift. Boom Truck modeled as Crane. LoDrill modeled as Excavator.

Off-road Equipment - Per applicant.

Off-road Equipment - Per applicant provided information.

Off-road Equipment - Per applicant.

Off-road Equipment - Per applicant provided information.

Off-road Equipment - Per applicant.

Off-road Equipment - Applicant provided information.

Off-road Equipment - Per applicant

Off-road Equipment - Per applicant.

Off-road Equipment - Per applicant

Off-road Equipment - Per applicant

Off-road Equipment - Per applicant. ATV modeled as off-highway tractor with 51 hp. Pile Driver modeled as Bore/Drill Rig.

Off-road Equipment - Per applicant.

Off-road Equipment - Per applicant. Ozzie Padder modeled as 175 hp Crawler Tractor.

Off-road Equipment - Per applicant. Ozzie Padder modeled as 175 hp Crawler Tractor.

Off-road Equipment - Per applicant.

Off-road Equipment - Per applicant. Line Truck modeled as Aerial Lift. Boom Truck modeled as Crane. LoDrill modeled as Excavator.

Trips and VMT - Per applicant.

On-road Fugitive Dust - Default values other than Solar construction site assumes 98% paved roads.

Demolition - None.

Grading - Material import or export accounted for in haul truck trips for each construction phase, assumed that onsite materials are balanced for grading. Import due to paving materials is included in truck trips.

Architectural Coating - Based on applicant provided information.

Vehicle Trips - Construction only.

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Woodstoves -

Energy Use -

Water And Wastewater - Construction only.

Solid Waste - Construction only.

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	7,500.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	7,500.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	22,500.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	22,500.00	0.00
tblArchitecturalCoating	ConstArea_Parking	5,154.00	1,620.00
tblArchitecturalCoating	ConstArea_Parking	5,154.00	240.00
tblArchitecturalCoating	ConstArea_Parking	5,154.00	0.00
tblAreaCoating	Area_Nonresidential_Exterior	7500	20000
tblAreaCoating	Area_Nonresidential_Interior	22500	60000
tblAreaCoating	Area_Parking	5154	7741
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	40
tblConstructionPhase	NumDays	10.00	3.00
tblConstructionPhase	NumDays	10.00	6.00
tblConstructionPhase	NumDays	10.00	2.00
tblConstructionPhase	NumDays	220.00	56.00
tblConstructionPhase	NumDays	220.00	27.00
tblConstructionPhase	NumDays	220.00	22.00
tblConstructionPhase	NumDays	220.00	39.00
tblConstructionPhase	NumDays	220.00	32.00

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tblConstructionPhase	NumDays	220.00	66.00
tblConstructionPhase	NumDays	220.00	111.00
tblConstructionPhase	NumDays	220.00	44.00
tblConstructionPhase	NumDays	6.00	4.00
tblConstructionPhase	NumDays	6.00	11.00
tblConstructionPhase	NumDays	6.00	35.00
tblConstructionPhase	NumDays	10.00	22.00
tblConstructionPhase	NumDays	10.00	6.00
tblConstructionPhase	NumDays	3.00	2.00
tblConstructionPhase	NumDays	3.00	10.00
tblConstructionPhase	NumDays	3.00	23.00
tblConstructionPhase	NumDays	3.00	28.00
tblConstructionPhase	NumDays	3.00	10.00
tblConstructionPhase	NumDays	3.00	15.00
tblConstructionPhase	NumDays	3.00	10.00
tblConstructionPhase	NumDays	3.00	20.00
tblConstructionPhase	NumDays	3.00	2.00
tblGrading	AcresOfGrading	1.50	3.00
tblGrading	AcresOfGrading	1.00	0.00
tblOffRoadEquipment	HorsePower	212.00	175.00
tblOffRoadEquipment	HorsePower	212.00	175.00
tblOffRoadEquipment	HorsePower	212.00	175.00
tblOffRoadEquipment	HorsePower	212.00	175.00
tblOffRoadEquipment	HorsePower	124.00	51.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00

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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
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tbloffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
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tbloffRoadEquipment	PhaseName		Solar - System Installation
tbloffRoadEquipment	PhaseName		Electric Distribution - Above Ground
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tbloffRoadEquipment	PhaseName		Electric Distribution - Above Ground
tbloffRoadEquipment	PhaseName		Gen-Tie - Interconnection Construction
tbloffRoadEquipment	PhaseName		Solar - Underground Collector Lines
tbloffRoadEquipment	PhaseName		Solar - System Installation
tbloffRoadEquipment	PhaseName		Electric Distribution - Site Preparation
tbloffRoadEquipment	PhaseName		Electric Distribution - Above Ground
tbloffRoadEquipment	PhaseName		Solar - Site Preparation
tbloffRoadEquipment	PhaseName		Solar - Underground Collector Lines
tbloffRoadEquipment	PhaseName		Electric Distribution - Above Ground
tbloffRoadEquipment	PhaseName		Solar - Fence Installation
tbloffRoadEquipment	PhaseName		Solar - System Installation
tbloffRoadEquipment	PhaseName		Electric Distribution - Site Preparation
tbloffRoadEquipment	PhaseName		Solar - Site Preparation
tbloffRoadEquipment	PhaseName		Solar - Testing and Restoration
tbloffRoadEquipment	PhaseName		Solar - Fence Installation
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tbloffRoadEquipment	UsageHours	8.00	6.00
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tbloffRoadEquipment	UsageHours	7.00	6.00

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tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
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tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
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tblOnRoadDust	HaulingPercentPave	100.00	98.00
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tblOnRoadDust	HaulingPercentPave	100.00	98.00
tblOnRoadDust	HaulingPercentPave	100.00	98.00
tblOnRoadDust	VendorPercentPave	100.00	98.00
tblOnRoadDust	VendorPercentPave	100.00	98.00

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tblOnRoadDust	VendorPercentPave	100.00	98.00
tblOnRoadDust	VendorPercentPave	100.00	98.00
tblOnRoadDust	VendorPercentPave	100.00	98.00
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tblSolidWaste	SolidWasteGenerationRate	18.60	0.00
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tblTripsAndVMT	HaulingTripNumber	0.00	2.00
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tblTripsAndVMT	HaulingTripNumber	0.00	6.00
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tblTripsAndVMT	HaulingTripNumber	0.00	16.00
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tblTripsAndVMT	HaulingTripNumber	0.00	2.00
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tblTripsAndVMT	VendorTripNumber	0.00	10.00
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tblTripsAndVMT	VendorTripNumber	0.00	2.00
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tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	17.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00

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tblTripsAndVMT	VendorTripNumber	0.00	8.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	17.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
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tblTripsAndVMT	VendorTripNumber	17.00	6.00
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tblTripsAndVMT	WorkerTripNumber	42.00	30.00
tblTripsAndVMT	WorkerTripNumber	8.00	14.00
tblTripsAndVMT	WorkerTripNumber	5.00	16.00
tblTripsAndVMT	WorkerTripNumber	13.00	8.00
tblTripsAndVMT	WorkerTripNumber	15.00	14.00
tblTripsAndVMT	WorkerTripNumber	42.00	26.00
tblTripsAndVMT	WorkerTripNumber	8.00	4.00
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tblTripsAndVMT	WorkerTripNumber	8.00	16.00
tblTripsAndVMT	WorkerTripNumber	13.00	8.00
tblTripsAndVMT	WorkerTripNumber	42.00	26.00
tblTripsAndVMT	WorkerTripNumber	42.00	16.00

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tblTripsAndVMT	WorkerTripNumber	15.00	14.00
tblTripsAndVMT	WorkerTripNumber	42.00	116.00
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tblTripsAndVMT	WorkerTripNumber	42.00	14.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	3,468,750.00	0.00

2.0 Emissions Summary

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2022	3-31-2022	0.7756	0.7756
3	7-1-2022	9-30-2022	0.5002	0.5002
		Highest	0.7756	0.7756

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	0.0947	0.0000	3.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.7000e-004	6.7000e-004	0.0000	0.0000	7.1000e-004
Energy	2.1300e-003	0.0194	0.0163	1.2000e-004		1.4700e-003	1.4700e-003		1.4700e-003	1.4700e-003	0.0000	57.5673	57.5673	2.0500e-003	7.3000e-004	57.8356
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0968	0.0194	0.0166	1.2000e-004	0.0000	1.4700e-003	1.4700e-003	0.0000	1.4700e-003	1.4700e-003	0.0000	57.5679	57.5679	2.0500e-003	7.3000e-004	57.8363

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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	0.0947	0.0000	3.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.7000e-004	6.7000e-004	0.0000	0.0000	7.1000e-004
Energy	2.1300e-003	0.0194	0.0163	1.2000e-004		1.4700e-003	1.4700e-003		1.4700e-003	1.4700e-003	0.0000	57.5673	57.5673	2.0500e-003	7.3000e-004	57.8356
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0968	0.0194	0.0166	1.2000e-004	0.0000	1.4700e-003	1.4700e-003	0.0000	1.4700e-003	1.4700e-003	0.0000	57.5679	57.5679	2.0500e-003	7.3000e-004	57.8363

	ROG	NOx	CO	SO2	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 - Powerhouse + BESS	Site Preparation	8/1/2021	8/3/2021	5	2	
2	Solar - Fence Installation	Site Preparation	8/1/2021	8/21/2021	5	15	

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3	Solar - Site Preparation	Site Preparation	8/1/2021	8/28/2021	5	20
4	Grading - Powerhouse + BESS	Grading	8/4/2021	8/18/2021	5	11
5	Solar - System Installation	Building Construction	8/15/2021	11/15/2021	5	66
6	Building Construction - Powerhouse + BESS	Building Construction	8/20/2021	1/21/2022	5	111
7	Solar - Underground Collector Lines	Grading	8/29/2021	10/15/2021	5	35
8	Site Preparation - Bodega Road	Site Preparation	9/15/2021	9/16/2021	5	2
9	Solar - Collector Substation	Building Construction	9/15/2021	11/15/2021	5	44
10	Grading - Bodega Road	Grading	9/17/2021	9/22/2021	5	4
11	Paving - Bodega Road	Paving	9/23/2021	10/22/2021	5	22
12	Electric Distribution - Site Preparation	Site Preparation	10/1/2021	10/14/2021	5	10
13	Electric Distribution - Above Ground	Building Construction	10/15/2021	12/31/2021	5	56
14	Arch Coating - Bodega Road	Architectural Coating	10/23/2021	10/27/2021	5	3
15	Solar - Testing and Restoration	Site Preparation	11/15/2021	12/15/2021	5	23
16	Gen-Tie - Site Preparation	Site Preparation	12/15/2021	1/22/2022	5	28
17	Electric Distribution - Site Clean Up	Site Preparation	1/1/2022	1/15/2022	5	10
18	Gen-Tie - Above Ground Work	Building Construction	1/1/2022	2/8/2022	5	27
19	Paving - Powerhouse + BESS	Paving	1/5/2022	1/12/2022	5	6
20	Arch Coating - Powerhouse + BESS	Architectural Coating	1/14/2022	1/21/2022	5	6
21	Gen-Tie - Interconnection Construction	Building Construction	1/15/2022	2/15/2022	5	22
22	Arch Coating - Electric Distribution	Architectural Coating	1/16/2022	1/18/2022	5	2
23	Sub Transmission - Site Preparation	Site Preparation	7/1/2022	7/14/2022	5	10
24	Sub Transmission - Below Ground	Building Construction	7/15/2022	9/7/2022	5	39
25	Sub Transmission - System Installation	Building Construction	9/8/2022	10/22/2022	5	32

Acres of Grading (Site Preparation Phase): 0

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Acres of Grading (Grading Phase): 0

Acres of Paving: 1.97

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 - Powerhouse + BESS	Graders	1	8.00	187	0.41
Site Preparation - Powerhouse + BESS	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Solar - Fence Installation	Rough Terrain Forklifts	1	8.00	100	0.40
Solar - Fence Installation	Skid Steer Loaders	3	8.00	65	0.37
Solar - Site Preparation	Graders	2	8.00	187	0.41
Solar - Site Preparation	Rollers	2	8.00	80	0.38
Solar - Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Solar - Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading - Powerhouse + BESS	Concrete/Industrial Saws	1	8.00	81	0.73
Grading - Powerhouse + BESS	Rubber Tired Dozers	1	1.00	247	0.40
Grading - Powerhouse + BESS	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Solar - System Installation	Bore/Drill Rigs	2	8.00	221	0.50
Solar - System Installation	Cranes	1	7.00	231	0.29
Solar - System Installation	Off-Highway Tractors	10	8.00	51	0.44
Solar - System Installation	Rough Terrain Forklifts	4	8.00	100	0.40
Building Construction - Powerhouse + BESS	Cranes	1	4.00	231	0.29
Building Construction - Powerhouse + BESS	Forklifts	2	6.00	89	0.20
Building Construction - Powerhouse + BESS	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Solar - Underground Collector Lines	Crawler Tractors	1	8.00	175	0.43
Solar - Underground Collector Lines	Excavators	2	8.00	158	0.38

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Solar - Underground Collector Lines	Rollers	1	8.00	80	0.38
Site Preparation - Bodega Road	Graders	1	8.00	187	0.41
Site Preparation - Bodega Road	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation - Bodega Road	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Solar - Collector Substation	Air Compressors	1	8.00	78	0.48
Solar - Collector Substation	Cranes	1	8.00	231	0.29
Solar - Collector Substation	Generator Sets	1	8.00	84	0.74
Solar - Collector Substation	Rough Terrain Forklifts	2	8.00	100	0.40
Solar - Collector Substation	Tractors/Loaders/Backhoes	2	4.00	97	0.37
Solar - Collector Substation	Welders	1	4.00	46	0.45
Grading - Bodega Road	Excavators	0	8.00	158	0.38
Grading - Bodega Road	Graders	1	6.00	187	0.41
Grading - Bodega Road	Rubber Tired Dozers	1	6.00	247	0.40
Grading - Bodega Road	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving - Bodega Road	Cement and Mortar Mixers	1	6.00	9	0.56
Paving - Bodega Road	Pavers	1	6.00	130	0.42
Paving - Bodega Road	Paving Equipment	1	8.00	132	0.36
Paving - Bodega Road	Rollers	1	7.00	80	0.38
Paving - Bodega Road	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Electric Distribution - Site Preparation	Graders	2	8.00	187	0.41
Electric Distribution - Site Preparation	Rollers	1	8.00	80	0.38
Electric Distribution - Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Electric Distribution - Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Electric Distribution - Above Ground	Crawler Tractors	1	8.00	175	0.43
Electric Distribution - Above Ground	Excavators	2	8.00	158	0.38
Electric Distribution - Above Ground	Rollers	1	8.00	80	0.38
Electric Distribution - Above Ground	Rough Terrain Forklifts	1	8.00	100	0.40

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Arch Coating - Bodega Road	Air Compressors	1	6.00	78	0.48
Solar - Testing and Restoration	Graders	1	8.00	187	0.41
Solar - Testing and Restoration	Skid Steer Loaders	1	8.00	65	0.37
Gen-Tie - Site Preparation	Graders	2	8.00	187	0.41
Gen-Tie - Site Preparation	Rollers	1	8.00	80	0.38
Gen-Tie - Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Gen-Tie - Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Electric Distribution - Site Clean Up	Pavers	1	8.00	130	0.42
Electric Distribution - Site Clean Up	Paving Equipment	2	6.00	132	0.36
Electric Distribution - Site Clean Up	Rollers	2	6.00	80	0.38
Electric Distribution - Site Clean Up	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Gen-Tie - Above Ground Work	Crawler Tractors	1	8.00	175	0.43
Gen-Tie - Above Ground Work	Excavators	2	8.00	158	0.38
Gen-Tie - Above Ground Work	Rollers	1	8.00	80	0.38
Gen-Tie - Above Ground Work	Rough Terrain Forklifts	1	8.00	100	0.40
Paving - Powerhouse + BESS	Cement and Mortar Mixers	4	6.00	9	0.56
Paving - Powerhouse + BESS	Pavers	1	7.00	130	0.42
Paving - Powerhouse + BESS	Rollers	1	7.00	80	0.38
Paving - Powerhouse + BESS	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Arch Coating - Powerhouse + BESS	Air Compressors	1	6.00	78	0.48
Gen-Tie - Interconnection Construction	Aerial Lifts	1	8.00	63	0.31
Gen-Tie - Interconnection Construction	Cranes	2	8.00	231	0.29
Gen-Tie - Interconnection Construction	Excavators	1	8.00	158	0.38
Arch Coating - Electric Distribution	Air Compressors	1	6.00	78	0.48
Sub Transmission - Site Preparation	Graders	2	8.00	187	0.41
Sub Transmission - Site Preparation	Rollers	1	8.00	80	0.38
Sub Transmission - Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40

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Sub Transmission - Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Sub Transmission - Below Ground	Crawler Tractors	1	8.00	175	0.43
Sub Transmission - Below Ground	Excavators	2	8.00	158	0.38
Sub Transmission - Below Ground	Rollers	1	8.00	80	0.38
Sub Transmission - Below Ground	Rough Terrain Forklifts	1	8.00	100	0.40
Sub Transmission - System Installation	Aerial Lifts	1	8.00	63	0.31
Sub Transmission - System Installation	Cranes	2	8.00	231	0.29
Sub Transmission - System Installation	Excavators	1	8.00	158	0.38

Trips and VMT

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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 - Powerhouse + BESS	2	6.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Solar - Fence Installation	4	10.00	8.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Solar - Site Preparation	6	14.00	10.00	8.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading - Powerhouse + BESS	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Solar - System Installation	17	116.00	14.00	16.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - Powerhouse + BESS	5	16.00	6.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Solar - Underground Collector Lines	4	14.00	4.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation - Bodega Road	3	12.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Solar - Collector Substation	8	14.00	2.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading - Bodega Road	3	4.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving - Bodega Road	5	20.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Electric Distribution - Site Preparation	5	14.00	10.00	8.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Electric Distribution - Above Ground	5	30.00	10.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Arch Coating - Bodega Road	1	14.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Solar - Testing and Restoration	2	16.00	10.00	4.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Gen-Tie - Site Preparation	5	8.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Electric Distribution - Site Clean Up	6	14.00	2.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Gen-Tie - Above Ground Work	5	26.00	4.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving - Powerhouse + BESS	7	18.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Arch Coating - Powerhouse + BESS	1	4.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Gen-Tie - Interconnection Constr	4	14.00	2.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Arch Coating - Electric Distribution	1	16.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Sub Transmission - Site Preparation	5	8.00	6.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Sub Transmission - Below Ground	5	26.00	4.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Sub Transmission - System Installation	4	16.00	8.00	6.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

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3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - Powerhouse + BESS - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.3000e-004	0.0000	5.3000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.4000e-004	7.8200e-003	4.0300e-003	1.0000e-005		3.0000e-004	3.0000e-004		2.8000e-004	2.8000e-004	0.0000	0.8551	0.8551	2.8000e-004	0.0000	0.8620
Total	6.4000e-004	7.8200e-003	4.0300e-003	1.0000e-005	5.3000e-004	3.0000e-004	8.3000e-004	6.0000e-005	2.8000e-004	3.4000e-004	0.0000	0.8551	0.8551	2.8000e-004	0.0000	0.8620

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3.2 Site Preparation - Powerhouse + BESS - 2021

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	2.0000e-005	2.0000e-005	2.0000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0438	0.0438	0.0000	0.0000	0.0439
Total	2.0000e-005	2.0000e-005	2.0000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0438	0.0438	0.0000	0.0000	0.0439

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.4000e-004	0.0000	2.4000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.4000e-004	7.8200e-003	4.0300e-003	1.0000e-005		3.0000e-004	3.0000e-004		2.8000e-004	2.8000e-004	0.0000	0.8551	0.8551	2.8000e-004	0.0000	0.8620
Total	6.4000e-004	7.8200e-003	4.0300e-003	1.0000e-005	2.4000e-004	3.0000e-004	5.4000e-004	3.0000e-005	2.8000e-004	3.1000e-004	0.0000	0.8551	0.8551	2.8000e-004	0.0000	0.8620

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3.2 Site Preparation - Powerhouse + BESS - 2021

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	2.0000e-005	2.0000e-005	2.0000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0438	0.0438	0.0000	0.0000	0.0439
Total	2.0000e-005	2.0000e-005	2.0000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0438	0.0438	0.0000	0.0000	0.0439

3.3 Solar - Fence Installation - 2021

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6200e-003	0.0347	0.0485	7.0000e-005		1.3900e-003	1.3900e-003		1.2800e-003	1.2800e-003	0.0000	6.3573	6.3573	2.0600e-003	0.0000	6.4087
Total	2.6200e-003	0.0347	0.0485	7.0000e-005	0.0000	1.3900e-003	1.3900e-003	0.0000	1.2800e-003	1.2800e-003	0.0000	6.3573	6.3573	2.0600e-003	0.0000	6.4087

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3.3 Solar - Fence Installation - 2021

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	2.2000e-004	6.8200e-003	1.7900e-003	2.0000e-005	0.0113	2.0000e-005	0.0114	1.2100e-003	2.0000e-005	1.2300e-003	0.0000	1.6133	1.6133	7.0000e-005	0.0000	1.6151
Worker	3.0000e-004	2.7000e-004	2.4800e-003	1.0000e-005	6.0000e-004	1.0000e-005	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5479	0.5479	2.0000e-005	0.0000	0.5484
Total	5.2000e-004	7.0900e-003	4.2700e-003	3.0000e-005	0.0119	3.0000e-005	0.0120	1.3700e-003	2.0000e-005	1.3900e-003	0.0000	2.1612	2.1612	9.0000e-005	0.0000	2.1635

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6200e-003	0.0347	0.0485	7.0000e-005		1.3900e-003	1.3900e-003		1.2800e-003	1.2800e-003	0.0000	6.3573	6.3573	2.0600e-003	0.0000	6.4087
Total	2.6200e-003	0.0347	0.0485	7.0000e-005	0.0000	1.3900e-003	1.3900e-003	0.0000	1.2800e-003	1.2800e-003	0.0000	6.3573	6.3573	2.0600e-003	0.0000	6.4087

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3.3 Solar - Fence Installation - 2021

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	2.2000e-004	6.8200e-003	1.7900e-003	2.0000e-005	0.0113	2.0000e-005	0.0114	1.2100e-003	2.0000e-005	1.2300e-003	0.0000	1.6133	1.6133	7.0000e-005	0.0000	1.6151
Worker	3.0000e-004	2.7000e-004	2.4800e-003	1.0000e-005	6.0000e-004	1.0000e-005	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5479	0.5479	2.0000e-005	0.0000	0.5484
Total	5.2000e-004	7.0900e-003	4.2700e-003	3.0000e-005	0.0119	3.0000e-005	0.0120	1.3700e-003	2.0000e-005	1.3900e-003	0.0000	2.1612	2.1612	9.0000e-005	0.0000	2.1635

3.4 Solar - Site Preparation - 2021

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					0.0708	0.0000	0.0708	0.0343	0.0000	0.0343	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0252	0.2857	0.1359	3.0000e-004		0.0126	0.0126		0.0115	0.0115	0.0000	26.4880	26.4880	8.5700e-003	0.0000	26.7021
Total	0.0252	0.2857	0.1359	3.0000e-004	0.0708	0.0126	0.0834	0.0343	0.0115	0.0458	0.0000	26.4880	26.4880	8.5700e-003	0.0000	26.7021

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3.4 Solar - Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-005	1.1100e-003	2.3000e-004	0.0000	2.0700e-003	0.0000	2.0700e-003	2.2000e-004	0.0000	2.2000e-004	0.0000	0.3081	0.3081	1.0000e-005	0.0000	0.3084
Vendor	3.7000e-004	0.0114	2.9900e-003	3.0000e-005	0.0189	3.0000e-005	0.0189	2.0100e-003	3.0000e-005	2.0400e-003	0.0000	2.6889	2.6889	1.2000e-004	0.0000	2.6919
Worker	5.6000e-004	5.1000e-004	4.6300e-003	1.0000e-005	1.1100e-003	1.0000e-005	1.1200e-003	3.0000e-004	1.0000e-005	3.0000e-004	0.0000	1.0227	1.0227	4.0000e-005	0.0000	1.0237
Total	9.6000e-004	0.0130	7.8500e-003	4.0000e-005	0.0221	4.0000e-005	0.0221	2.5300e-003	4.0000e-005	2.5600e-003	0.0000	4.0197	4.0197	1.7000e-004	0.0000	4.0240

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					0.0319	0.0000	0.0319	0.0154	0.0000	0.0154	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0252	0.2857	0.1359	3.0000e-004		0.0126	0.0126		0.0115	0.0115	0.0000	26.4879	26.4879	8.5700e-003	0.0000	26.7021
Total	0.0252	0.2857	0.1359	3.0000e-004	0.0319	0.0126	0.0444	0.0154	0.0115	0.0270	0.0000	26.4879	26.4879	8.5700e-003	0.0000	26.7021

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3.4 Solar - Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-005	1.1100e-003	2.3000e-004	0.0000	2.0700e-003	0.0000	2.0700e-003	2.2000e-004	0.0000	2.2000e-004	0.0000	0.3081	0.3081	1.0000e-005	0.0000	0.3084
Vendor	3.7000e-004	0.0114	2.9900e-003	3.0000e-005	0.0189	3.0000e-005	0.0189	2.0100e-003	3.0000e-005	2.0400e-003	0.0000	2.6889	2.6889	1.2000e-004	0.0000	2.6919
Worker	5.6000e-004	5.1000e-004	4.6300e-003	1.0000e-005	1.1100e-003	1.0000e-005	1.1200e-003	3.0000e-004	1.0000e-005	3.0000e-004	0.0000	1.0227	1.0227	4.0000e-005	0.0000	1.0237
Total	9.6000e-004	0.0130	7.8500e-003	4.0000e-005	0.0221	4.0000e-005	0.0221	2.5300e-003	4.0000e-005	2.5600e-003	0.0000	4.0197	4.0197	1.7000e-004	0.0000	4.0240

3.5 Grading - Powerhouse + BESS - 2021

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					4.1400e-003	0.0000	4.1400e-003	2.2800e-003	0.0000	2.2800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3800e-003	0.0399	0.0416	7.0000e-005		2.2400e-003	2.2400e-003		2.1400e-003	2.1400e-003	0.0000	5.7251	5.7251	1.0700e-003	0.0000	5.7518
Total	4.3800e-003	0.0399	0.0416	7.0000e-005	4.1400e-003	2.2400e-003	6.3800e-003	2.2800e-003	2.1400e-003	4.4200e-003	0.0000	5.7251	5.7251	1.0700e-003	0.0000	5.7518

Gonzales Microgrid Construction Analysis - Monterey County, Annual

3.5 Grading - Powerhouse + BESS - 2021

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	2.2000e-004	2.0000e-004	1.8200e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4018	0.4018	2.0000e-005	0.0000	0.4022
Total	2.2000e-004	2.0000e-004	1.8200e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4018	0.4018	2.0000e-005	0.0000	0.4022

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					1.8600e-003	0.0000	1.8600e-003	1.0200e-003	0.0000	1.0200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3800e-003	0.0399	0.0416	7.0000e-005		2.2400e-003	2.2400e-003		2.1400e-003	2.1400e-003	0.0000	5.7251	5.7251	1.0700e-003	0.0000	5.7518
Total	4.3800e-003	0.0399	0.0416	7.0000e-005	1.8600e-003	2.2400e-003	4.1000e-003	1.0200e-003	2.1400e-003	3.1600e-003	0.0000	5.7251	5.7251	1.0700e-003	0.0000	5.7518

Gonzales Microgrid Construction Analysis - Monterey County, Annual

3.5 Grading - Powerhouse + BESS - 2021

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	2.2000e-004	2.0000e-004	1.8200e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4018	0.4018	2.0000e-005	0.0000	0.4022
Total	2.2000e-004	2.0000e-004	1.8200e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4018	0.4018	2.0000e-005	0.0000	0.4022

3.6 Solar - System Installation - 2021

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	0.0968	1.0451	0.9858	1.8800e-003		0.0541	0.0541		0.0497	0.0497	0.0000	165.4356	165.4356	0.0535	0.0000	166.7732
Total	0.0968	1.0451	0.9858	1.8800e-003		0.0541	0.0541		0.0497	0.0497	0.0000	165.4356	165.4356	0.0535	0.0000	166.7732

Gonzales Microgrid Construction Analysis - Monterey County, Annual

3.6 Solar - System Installation - 2021

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	6.0000e-005	2.2100e-003	4.7000e-004	1.0000e-005	4.1300e-003	1.0000e-005	4.1400e-003	4.4000e-004	1.0000e-005	4.4000e-004	0.0000	0.6162	0.6162	2.0000e-005	0.0000	0.6168
Vendor	1.7100e-003	0.0525	0.0138	1.3000e-004	0.0873	1.6000e-004	0.0875	9.2800e-003	1.5000e-004	9.4400e-003	0.0000	12.4225	12.4225	5.5000e-004	0.0000	12.4364
Worker	0.0155	0.0139	0.1267	3.1000e-004	0.0304	2.6000e-004	0.0307	8.0900e-003	2.4000e-004	8.3300e-003	0.0000	27.9640	27.9640	1.1100e-003	0.0000	27.9918
Total	0.0172	0.0686	0.1410	4.5000e-004	0.1219	4.3000e-004	0.1223	0.0178	4.0000e-004	0.0182	0.0000	41.0028	41.0028	1.6800e-003	0.0000	41.0450

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	0.0968	1.0451	0.9858	1.8800e-003		0.0541	0.0541		0.0497	0.0497	0.0000	165.4354	165.4354	0.0535	0.0000	166.7730
Total	0.0968	1.0451	0.9858	1.8800e-003		0.0541	0.0541		0.0497	0.0497	0.0000	165.4354	165.4354	0.0535	0.0000	166.7730

Gonzales Microgrid Construction Analysis - Monterey County, Annual

3.6 Solar - System Installation - 2021

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	6.0000e-005	2.2100e-003	4.7000e-004	1.0000e-005	4.1300e-003	1.0000e-005	4.1400e-003	4.4000e-004	1.0000e-005	4.4000e-004	0.0000	0.6162	0.6162	2.0000e-005	0.0000	0.6168
Vendor	1.7100e-003	0.0525	0.0138	1.3000e-004	0.0873	1.6000e-004	0.0875	9.2800e-003	1.5000e-004	9.4400e-003	0.0000	12.4225	12.4225	5.5000e-004	0.0000	12.4364
Worker	0.0155	0.0139	0.1267	3.1000e-004	0.0304	2.6000e-004	0.0307	8.0900e-003	2.4000e-004	8.3300e-003	0.0000	27.9640	27.9640	1.1100e-003	0.0000	27.9918
Total	0.0172	0.0686	0.1410	4.5000e-004	0.1219	4.3000e-004	0.1223	0.0178	4.0000e-004	0.0182	0.0000	41.0028	41.0028	1.6800e-003	0.0000	41.0450

3.7 Building Construction - Powerhouse + BESS - 2021

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	0.0350	0.3605	0.3215	5.1000e-004		0.0201	0.0201		0.0185	0.0185	0.0000	44.7637	44.7637	0.0145	0.0000	45.1257
Total	0.0350	0.3605	0.3215	5.1000e-004		0.0201	0.0201		0.0185	0.0185	0.0000	44.7637	44.7637	0.0145	0.0000	45.1257

Gonzales Microgrid Construction Analysis - Monterey County, Annual

3.7 Building Construction - Powerhouse + BESS - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0600e-003	0.0327	8.6000e-003	8.0000e-005	1.9000e-003	1.0000e-004	2.0000e-003	5.5000e-004	1.0000e-004	6.4000e-004	0.0000	7.7439	7.7439	3.5000e-004	0.0000	7.7526
Worker	3.1000e-003	2.7900e-003	0.0254	6.0000e-005	6.1000e-003	5.0000e-005	6.1600e-003	1.6200e-003	5.0000e-005	1.6700e-003	0.0000	5.6103	5.6103	2.2000e-004	0.0000	5.6159
Total	4.1600e-003	0.0355	0.0340	1.4000e-004	8.0000e-003	1.5000e-004	8.1600e-003	2.1700e-003	1.5000e-004	2.3100e-003	0.0000	13.3543	13.3543	5.7000e-004	0.0000	13.3685

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	0.0350	0.3605	0.3215	5.1000e-004		0.0201	0.0201		0.0185	0.0185	0.0000	44.7637	44.7637	0.0145	0.0000	45.1256
Total	0.0350	0.3605	0.3215	5.1000e-004		0.0201	0.0201		0.0185	0.0185	0.0000	44.7637	44.7637	0.0145	0.0000	45.1256

Gonzales Microgrid Construction Analysis - Monterey County, Annual

3.7 Building Construction - Powerhouse + BESS - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0600e-003	0.0327	8.6000e-003	8.0000e-005	1.9000e-003	1.0000e-004	2.0000e-003	5.5000e-004	1.0000e-004	6.4000e-004	0.0000	7.7439	7.7439	3.5000e-004	0.0000	7.7526
Worker	3.1000e-003	2.7900e-003	0.0254	6.0000e-005	6.1000e-003	5.0000e-005	6.1600e-003	1.6200e-003	5.0000e-005	1.6700e-003	0.0000	5.6103	5.6103	2.2000e-004	0.0000	5.6159
Total	4.1600e-003	0.0355	0.0340	1.4000e-004	8.0000e-003	1.5000e-004	8.1600e-003	2.1700e-003	1.5000e-004	2.3100e-003	0.0000	13.3543	13.3543	5.7000e-004	0.0000	13.3685

3.7 Building Construction - Powerhouse + BESS - 2022

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	4.8400e-003	0.0496	0.0495	8.0000e-005		2.6200e-003	2.6200e-003		2.4100e-003	2.4100e-003	0.0000	6.9987	6.9987	2.2600e-003	0.0000	7.0553
Total	4.8400e-003	0.0496	0.0495	8.0000e-005		2.6200e-003	2.6200e-003		2.4100e-003	2.4100e-003	0.0000	6.9987	6.9987	2.2600e-003	0.0000	7.0553

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3.7 Building Construction - Powerhouse + BESS - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.5000e-004	4.8400e-003	1.2200e-003	1.0000e-005	3.0000e-004	1.0000e-005	3.1000e-004	9.0000e-005	1.0000e-005	1.0000e-004	0.0000	1.1998	1.1998	5.0000e-005	0.0000	1.2011
Worker	4.5000e-004	3.9000e-004	3.6200e-003	1.0000e-005	9.5000e-004	1.0000e-005	9.6000e-004	2.5000e-004	1.0000e-005	2.6000e-004	0.0000	0.8458	0.8458	3.0000e-005	0.0000	0.8465
Total	6.0000e-004	5.2300e-003	4.8400e-003	2.0000e-005	1.2500e-003	2.0000e-005	1.2700e-003	3.4000e-004	2.0000e-005	3.6000e-004	0.0000	2.0456	2.0456	8.0000e-005	0.0000	2.0476

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	4.8400e-003	0.0496	0.0495	8.0000e-005		2.6200e-003	2.6200e-003		2.4100e-003	2.4100e-003	0.0000	6.9987	6.9987	2.2600e-003	0.0000	7.0553
Total	4.8400e-003	0.0496	0.0495	8.0000e-005		2.6200e-003	2.6200e-003		2.4100e-003	2.4100e-003	0.0000	6.9987	6.9987	2.2600e-003	0.0000	7.0553

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3.7 Building Construction - Powerhouse + BESS - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.5000e-004	4.8400e-003	1.2200e-003	1.0000e-005	3.0000e-004	1.0000e-005	3.1000e-004	9.0000e-005	1.0000e-005	1.0000e-004	0.0000	1.1998	1.1998	5.0000e-005	0.0000	1.2011
Worker	4.5000e-004	3.9000e-004	3.6200e-003	1.0000e-005	9.5000e-004	1.0000e-005	9.6000e-004	2.5000e-004	1.0000e-005	2.6000e-004	0.0000	0.8458	0.8458	3.0000e-005	0.0000	0.8465
Total	6.0000e-004	5.2300e-003	4.8400e-003	2.0000e-005	1.2500e-003	2.0000e-005	1.2700e-003	3.4000e-004	2.0000e-005	3.6000e-004	0.0000	2.0456	2.0456	8.0000e-005	0.0000	2.0476

3.8 Solar - Underground Collector Lines - 2021

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					9.2800e-003	0.0000	9.2800e-003	1.0000e-003	0.0000	1.0000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0215	0.2111	0.2243	3.4000e-004		0.0114	0.0114		0.0105	0.0105	0.0000	29.8485	29.8485	9.6500e-003	0.0000	30.0899
Total	0.0215	0.2111	0.2243	3.4000e-004	9.2800e-003	0.0114	0.0207	1.0000e-003	0.0105	0.0115	0.0000	29.8485	29.8485	9.6500e-003	0.0000	30.0899

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3.8 Solar - Underground Collector Lines - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	2.8000e-004	6.0000e-005	0.0000	5.2000e-004	0.0000	5.2000e-004	5.0000e-005	0.0000	6.0000e-005	0.0000	0.0770	0.0770	0.0000	0.0000	0.0771
Vendor	2.6000e-004	7.9500e-003	2.0900e-003	2.0000e-005	0.0132	2.0000e-005	0.0133	1.4100e-003	2.0000e-005	1.4300e-003	0.0000	1.8822	1.8822	8.0000e-005	0.0000	1.8843
Worker	9.9000e-004	8.9000e-004	8.1100e-003	2.0000e-005	1.9500e-003	2.0000e-005	1.9600e-003	5.2000e-004	2.0000e-005	5.3000e-004	0.0000	1.7898	1.7898	7.0000e-005	0.0000	1.7915
Total	1.2600e-003	9.1200e-003	0.0103	4.0000e-005	0.0157	4.0000e-005	0.0157	1.9800e-003	4.0000e-005	2.0200e-003	0.0000	3.7490	3.7490	1.5000e-004	0.0000	3.7529

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					4.1800e-003	0.0000	4.1800e-003	4.5000e-004	0.0000	4.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0215	0.2111	0.2243	3.4000e-004		0.0114	0.0114		0.0105	0.0105	0.0000	29.8485	29.8485	9.6500e-003	0.0000	30.0898
Total	0.0215	0.2111	0.2243	3.4000e-004	4.1800e-003	0.0114	0.0156	4.5000e-004	0.0105	0.0109	0.0000	29.8485	29.8485	9.6500e-003	0.0000	30.0898

Gonzales Microgrid Construction Analysis - Monterey County, Annual

3.8 Solar - Underground Collector Lines - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	2.8000e-004	6.0000e-005	0.0000	5.2000e-004	0.0000	5.2000e-004	5.0000e-005	0.0000	6.0000e-005	0.0000	0.0770	0.0770	0.0000	0.0000	0.0771
Vendor	2.6000e-004	7.9500e-003	2.0900e-003	2.0000e-005	0.0132	2.0000e-005	0.0133	1.4100e-003	2.0000e-005	1.4300e-003	0.0000	1.8822	1.8822	8.0000e-005	0.0000	1.8843
Worker	9.9000e-004	8.9000e-004	8.1100e-003	2.0000e-005	1.9500e-003	2.0000e-005	1.9600e-003	5.2000e-004	2.0000e-005	5.3000e-004	0.0000	1.7898	1.7898	7.0000e-005	0.0000	1.7915
Total	1.2600e-003	9.1200e-003	0.0103	4.0000e-005	0.0157	4.0000e-005	0.0157	1.9800e-003	4.0000e-005	2.0200e-003	0.0000	3.7490	3.7490	1.5000e-004	0.0000	3.7529

3.9 Site Preparation - Bodega Road - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.2700e-003	0.0000	5.2700e-003	2.9000e-003	0.0000	2.9000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5600e-003	0.0174	7.5600e-003	2.0000e-005		7.7000e-004	7.7000e-004		7.0000e-004	7.0000e-004	0.0000	1.5118	1.5118	4.9000e-004	0.0000	1.5241
Total	1.5600e-003	0.0174	7.5600e-003	2.0000e-005	5.2700e-003	7.7000e-004	6.0400e-003	2.9000e-003	7.0000e-004	3.6000e-003	0.0000	1.5118	1.5118	4.9000e-004	0.0000	1.5241

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3.9 Site Preparation - Bodega Road - 2021

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	5.0000e-005	4.0000e-005	4.0000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0877	0.0877	0.0000	0.0000	0.0878
Total	5.0000e-005	4.0000e-005	4.0000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0877	0.0877	0.0000	0.0000	0.0878

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3700e-003	0.0000	2.3700e-003	1.3000e-003	0.0000	1.3000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5600e-003	0.0174	7.5600e-003	2.0000e-005		7.7000e-004	7.7000e-004		7.0000e-004	7.0000e-004	0.0000	1.5118	1.5118	4.9000e-004	0.0000	1.5241
Total	1.5600e-003	0.0174	7.5600e-003	2.0000e-005	2.3700e-003	7.7000e-004	3.1400e-003	1.3000e-003	7.0000e-004	2.0000e-003	0.0000	1.5118	1.5118	4.9000e-004	0.0000	1.5241

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3.9 Site Preparation - Bodega Road - 2021

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	5.0000e-005	4.0000e-005	4.0000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0877	0.0877	0.0000	0.0000	0.0878
Total	5.0000e-005	4.0000e-005	4.0000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0877	0.0877	0.0000	0.0000	0.0878

3.10 Solar - Collector Substation - 2021

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	0.0362	0.3504	0.3476	6.1000e-004		0.0168	0.0168		0.0160	0.0160	0.0000	52.4740	52.4740	0.0113	0.0000	52.7559
Total	0.0362	0.3504	0.3476	6.1000e-004		0.0168	0.0168		0.0160	0.0160	0.0000	52.4740	52.4740	0.0113	0.0000	52.7559

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3.10 Solar - Collector Substation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	2.8000e-004	6.0000e-005	0.0000	5.2000e-004	0.0000	5.2000e-004	5.0000e-005	0.0000	6.0000e-005	0.0000	0.0770	0.0770	0.0000	0.0000	0.0771
Vendor	1.6000e-004	5.0000e-003	1.3100e-003	1.0000e-005	8.3200e-003	2.0000e-005	8.3300e-003	8.8000e-004	1.0000e-005	9.0000e-004	0.0000	1.1831	1.1831	5.0000e-005	0.0000	1.1844
Worker	1.2400e-003	1.1200e-003	0.0102	2.0000e-005	2.4500e-003	2.0000e-005	2.4700e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.2500	2.2500	9.0000e-005	0.0000	2.2522
Total	1.4100e-003	6.4000e-003	0.0116	3.0000e-005	0.0113	4.0000e-005	0.0113	1.5800e-003	3.0000e-005	1.6300e-003	0.0000	3.5101	3.5101	1.4000e-004	0.0000	3.5137

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	0.0362	0.3504	0.3476	6.1000e-004		0.0168	0.0168		0.0160	0.0160	0.0000	52.4740	52.4740	0.0113	0.0000	52.7559
Total	0.0362	0.3504	0.3476	6.1000e-004		0.0168	0.0168		0.0160	0.0160	0.0000	52.4740	52.4740	0.0113	0.0000	52.7559

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3.10 Solar - Collector Substation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	2.8000e-004	6.0000e-005	0.0000	5.2000e-004	0.0000	5.2000e-004	5.0000e-005	0.0000	6.0000e-005	0.0000	0.0770	0.0770	0.0000	0.0000	0.0771
Vendor	1.6000e-004	5.0000e-003	1.3100e-003	1.0000e-005	8.3200e-003	2.0000e-005	8.3300e-003	8.8000e-004	1.0000e-005	9.0000e-004	0.0000	1.1831	1.1831	5.0000e-005	0.0000	1.1844
Worker	1.2400e-003	1.1200e-003	0.0102	2.0000e-005	2.4500e-003	2.0000e-005	2.4700e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.2500	2.2500	9.0000e-005	0.0000	2.2522
Total	1.4100e-003	6.4000e-003	0.0116	3.0000e-005	0.0113	4.0000e-005	0.0113	1.5800e-003	3.0000e-005	1.6300e-003	0.0000	3.5101	3.5101	1.4000e-004	0.0000	3.5137

3.11 Grading - Bodega Road - 2021

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					0.0106	0.0000	0.0106	5.1400e-003	0.0000	5.1400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.5800e-003	0.0287	0.0127	3.0000e-005		1.2800e-003	1.2800e-003		1.1700e-003	1.1700e-003	0.0000	2.4767	2.4767	8.0000e-004	0.0000	2.4968
Total	2.5800e-003	0.0287	0.0127	3.0000e-005	0.0106	1.2800e-003	0.0119	5.1400e-003	1.1700e-003	6.3100e-003	0.0000	2.4767	2.4767	8.0000e-004	0.0000	2.4968

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3.11 Grading - Bodega Road - 2021

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	3.0000e-005	3.0000e-005	2.6000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0584	0.0584	0.0000	0.0000	0.0585
Total	3.0000e-005	3.0000e-005	2.6000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0584	0.0584	0.0000	0.0000	0.0585

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					4.7800e-003	0.0000	4.7800e-003	2.3100e-003	0.0000	2.3100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.5800e-003	0.0287	0.0127	3.0000e-005		1.2800e-003	1.2800e-003		1.1700e-003	1.1700e-003	0.0000	2.4767	2.4767	8.0000e-004	0.0000	2.4968
Total	2.5800e-003	0.0287	0.0127	3.0000e-005	4.7800e-003	1.2800e-003	6.0600e-003	2.3100e-003	1.1700e-003	3.4800e-003	0.0000	2.4767	2.4767	8.0000e-004	0.0000	2.4968

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3.11 Grading - Bodega Road - 2021

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	3.0000e-005	3.0000e-005	2.6000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0584	0.0584	0.0000	0.0000	0.0585
Total	3.0000e-005	3.0000e-005	2.6000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0584	0.0584	0.0000	0.0000	0.0585

3.12 Paving - Bodega Road - 2021

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	8.5100e-003	0.0852	0.0974	1.5000e-004		4.5700e-003	4.5700e-003		4.2100e-003	4.2100e-003	0.0000	12.9415	12.9415	4.1000e-003	0.0000	13.0440
Paving	2.5800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0111	0.0852	0.0974	1.5000e-004		4.5700e-003	4.5700e-003		4.2100e-003	4.2100e-003	0.0000	12.9415	12.9415	4.1000e-003	0.0000	13.0440

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3.12 Paving - Bodega Road - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.6000e-004	5.0000e-003	1.3100e-003	1.0000e-005	2.9000e-004	2.0000e-005	3.0000e-004	8.0000e-005	1.0000e-005	1.0000e-004	0.0000	1.1831	1.1831	5.0000e-005	0.0000	1.1844
Worker	8.9000e-004	8.0000e-004	7.2800e-003	2.0000e-005	1.7500e-003	2.0000e-005	1.7600e-003	4.6000e-004	1.0000e-005	4.8000e-004	0.0000	1.6071	1.6071	6.0000e-005	0.0000	1.6087
Total	1.0500e-003	5.8000e-003	8.5900e-003	3.0000e-005	2.0400e-003	4.0000e-005	2.0600e-003	5.4000e-004	2.0000e-005	5.8000e-004	0.0000	2.7902	2.7902	1.1000e-004	0.0000	2.7931

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	8.5100e-003	0.0852	0.0974	1.5000e-004		4.5700e-003	4.5700e-003		4.2100e-003	4.2100e-003	0.0000	12.9415	12.9415	4.1000e-003	0.0000	13.0440
Paving	2.5800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0111	0.0852	0.0974	1.5000e-004		4.5700e-003	4.5700e-003		4.2100e-003	4.2100e-003	0.0000	12.9415	12.9415	4.1000e-003	0.0000	13.0440

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3.12 Paving - Bodega Road - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.6000e-004	5.0000e-003	1.3100e-003	1.0000e-005	2.9000e-004	2.0000e-005	3.0000e-004	8.0000e-005	1.0000e-005	1.0000e-004	0.0000	1.1831	1.1831	5.0000e-005	0.0000	1.1844
Worker	8.9000e-004	8.0000e-004	7.2800e-003	2.0000e-005	1.7500e-003	2.0000e-005	1.7600e-003	4.6000e-004	1.0000e-005	4.8000e-004	0.0000	1.6071	1.6071	6.0000e-005	0.0000	1.6087
Total	1.0500e-003	5.8000e-003	8.5900e-003	3.0000e-005	2.0400e-003	4.0000e-005	2.0600e-003	5.4000e-004	2.0000e-005	5.8000e-004	0.0000	2.7902	2.7902	1.1000e-004	0.0000	2.7931

3.13 Electric Distribution - Site Preparation - 2021

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					0.0354	0.0000	0.0354	0.0171	0.0000	0.0171	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0117	0.1332	0.0586	1.4000e-004		5.6900e-003	5.6900e-003		5.2300e-003	5.2300e-003	0.0000	12.0915	12.0915	3.9100e-003	0.0000	12.1892
Total	0.0117	0.1332	0.0586	1.4000e-004	0.0354	5.6900e-003	0.0411	0.0171	5.2300e-003	0.0224	0.0000	12.0915	12.0915	3.9100e-003	0.0000	12.1892

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3.13 Electric Distribution - Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-005	1.1100e-003	2.3000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.3081	0.3081	1.0000e-005	0.0000	0.3084
Vendor	1.8000e-004	5.6800e-003	1.4900e-003	1.0000e-005	3.3000e-004	2.0000e-005	3.5000e-004	1.0000e-004	2.0000e-005	1.1000e-004	0.0000	1.3444	1.3444	6.0000e-005	0.0000	1.3459
Worker	2.8000e-004	2.5000e-004	2.3200e-003	1.0000e-005	5.6000e-004	0.0000	5.6000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5114	0.5114	2.0000e-005	0.0000	0.5119
Total	4.9000e-004	7.0400e-003	4.0400e-003	2.0000e-005	9.6000e-004	2.0000e-005	9.8000e-004	2.7000e-004	2.0000e-005	2.8000e-004	0.0000	2.1639	2.1639	9.0000e-005	0.0000	2.1662

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					0.0159	0.0000	0.0159	7.7100e-003	0.0000	7.7100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0117	0.1332	0.0586	1.4000e-004		5.6900e-003	5.6900e-003		5.2300e-003	5.2300e-003	0.0000	12.0914	12.0914	3.9100e-003	0.0000	12.1892
Total	0.0117	0.1332	0.0586	1.4000e-004	0.0159	5.6900e-003	0.0216	7.7100e-003	5.2300e-003	0.0129	0.0000	12.0914	12.0914	3.9100e-003	0.0000	12.1892

Gonzales Microgrid Construction Analysis - Monterey County, Annual

3.13 Electric Distribution - Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-005	1.1100e-003	2.3000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.3081	0.3081	1.0000e-005	0.0000	0.3084
Vendor	1.8000e-004	5.6800e-003	1.4900e-003	1.0000e-005	3.3000e-004	2.0000e-005	3.5000e-004	1.0000e-004	2.0000e-005	1.1000e-004	0.0000	1.3444	1.3444	6.0000e-005	0.0000	1.3459
Worker	2.8000e-004	2.5000e-004	2.3200e-003	1.0000e-005	5.6000e-004	0.0000	5.6000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5114	0.5114	2.0000e-005	0.0000	0.5119
Total	4.9000e-004	7.0400e-003	4.0400e-003	2.0000e-005	9.6000e-004	2.0000e-005	9.8000e-004	2.7000e-004	2.0000e-005	2.8000e-004	0.0000	2.1639	2.1639	9.0000e-005	0.0000	2.1662

3.14 Electric Distribution - Above Ground - 2021

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	0.0378	0.3829	0.4231	6.4000e-004		0.0200	0.0200		0.0184	0.0184	0.0000	56.2358	56.2358	0.0182	0.0000	56.6905
Total	0.0378	0.3829	0.4231	6.4000e-004		0.0200	0.0200		0.0184	0.0184	0.0000	56.2358	56.2358	0.0182	0.0000	56.6905

Gonzales Microgrid Construction Analysis - Monterey County, Annual

3.14 Electric Distribution - Above Ground - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	2.8000e-004	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0770	0.0770	0.0000	0.0000	0.0771
Vendor	1.0300e-003	0.0318	8.3600e-003	8.0000e-005	1.8400e-003	1.0000e-004	1.9400e-003	5.3000e-004	9.0000e-005	6.3000e-004	0.0000	7.5288	7.5288	3.4000e-004	0.0000	7.5372
Worker	3.3900e-003	3.0500e-003	0.0278	7.0000e-005	6.6700e-003	6.0000e-005	6.7300e-003	1.7700e-003	5.0000e-005	1.8300e-003	0.0000	6.1363	6.1363	2.4000e-004	0.0000	6.1424
Total	4.4300e-003	0.0351	0.0362	1.5000e-004	8.5300e-003	1.6000e-004	8.6900e-003	2.3000e-003	1.4000e-004	2.4700e-003	0.0000	13.7422	13.7422	5.8000e-004	0.0000	13.7567

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	0.0378	0.3829	0.4231	6.4000e-004		0.0200	0.0200		0.0184	0.0184	0.0000	56.2357	56.2357	0.0182	0.0000	56.6904
Total	0.0378	0.3829	0.4231	6.4000e-004		0.0200	0.0200		0.0184	0.0184	0.0000	56.2357	56.2357	0.0182	0.0000	56.6904

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3.14 Electric Distribution - Above Ground - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	2.8000e-004	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0770	0.0770	0.0000	0.0000	0.0771
Vendor	1.0300e-003	0.0318	8.3600e-003	8.0000e-005	1.8400e-003	1.0000e-004	1.9400e-003	5.3000e-004	9.0000e-005	6.3000e-004	0.0000	7.5288	7.5288	3.4000e-004	0.0000	7.5372
Worker	3.3900e-003	3.0500e-003	0.0278	7.0000e-005	6.6700e-003	6.0000e-005	6.7300e-003	1.7700e-003	5.0000e-005	1.8300e-003	0.0000	6.1363	6.1363	2.4000e-004	0.0000	6.1424
Total	4.4300e-003	0.0351	0.0362	1.5000e-004	8.5300e-003	1.6000e-004	8.6900e-003	2.3000e-003	1.4000e-004	2.4700e-003	0.0000	13.7422	13.7422	5.8000e-004	0.0000	13.7567

3.15 Arch Coating - Bodega Road - 2021

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					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.3000e-004	2.2900e-003	2.7300e-003	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	0.3830	0.3830	3.0000e-005	0.0000	0.3837
Total	3.3000e-004	2.2900e-003	2.7300e-003	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	0.3830	0.3830	3.0000e-005	0.0000	0.3837

Gonzales Microgrid Construction Analysis - Monterey County, Annual

3.15 Arch Coating - Bodega Road - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-005	3.4000e-004	9.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0807	0.0807	0.0000	0.0000	0.0808
Worker	8.0000e-005	8.0000e-005	7.0000e-004	0.0000	1.7000e-004	0.0000	1.7000e-004	4.0000e-005	0.0000	5.0000e-005	0.0000	0.1534	0.1534	1.0000e-005	0.0000	0.1536
Total	9.0000e-005	4.2000e-004	7.9000e-004	0.0000	1.9000e-004	0.0000	1.9000e-004	5.0000e-005	0.0000	6.0000e-005	0.0000	0.2341	0.2341	1.0000e-005	0.0000	0.2343

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					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.3000e-004	2.2900e-003	2.7300e-003	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	0.3830	0.3830	3.0000e-005	0.0000	0.3836
Total	3.3000e-004	2.2900e-003	2.7300e-003	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	0.3830	0.3830	3.0000e-005	0.0000	0.3836

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3.15 Arch Coating - Bodega Road - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-005	3.4000e-004	9.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0807	0.0807	0.0000	0.0000	0.0808
Worker	8.0000e-005	8.0000e-005	7.0000e-004	0.0000	1.7000e-004	0.0000	1.7000e-004	4.0000e-005	0.0000	5.0000e-005	0.0000	0.1534	0.1534	1.0000e-005	0.0000	0.1536
Total	9.0000e-005	4.2000e-004	7.9000e-004	0.0000	1.9000e-004	0.0000	1.9000e-004	5.0000e-005	0.0000	6.0000e-005	0.0000	0.2341	0.2341	1.0000e-005	0.0000	0.2343

3.16 Solar - Testing and Restoration - 2021

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					6.1000e-003	0.0000	6.1000e-003	6.6000e-004	0.0000	6.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.0800e-003	0.0797	0.0363	1.0000e-004		2.6300e-003	2.6300e-003		2.4200e-003	2.4200e-003	0.0000	8.7830	8.7830	2.8400e-003	0.0000	8.8541
Total	6.0800e-003	0.0797	0.0363	1.0000e-004	6.1000e-003	2.6300e-003	8.7300e-003	6.6000e-004	2.4200e-003	3.0800e-003	0.0000	8.7830	8.7830	2.8400e-003	0.0000	8.8541

Gonzales Microgrid Construction Analysis - Monterey County, Annual

3.16 Solar - Testing and Restoration - 2021

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	2.0000e-005	5.5000e-004	1.2000e-004	0.0000	1.0300e-003	0.0000	1.0400e-003	1.1000e-004	0.0000	1.1000e-004	0.0000	0.1541	0.1541	1.0000e-005	0.0000	0.1542
Vendor	4.2000e-004	0.0131	3.4300e-003	3.0000e-005	0.0217	4.0000e-005	0.0218	2.3100e-003	4.0000e-005	2.3500e-003	0.0000	3.0922	3.0922	1.4000e-004	0.0000	3.0956
Worker	7.4000e-004	6.7000e-004	6.0900e-003	1.0000e-005	1.4600e-003	1.0000e-005	1.4700e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.3441	1.3441	5.0000e-005	0.0000	1.3455
Total	1.1800e-003	0.0143	9.6400e-003	4.0000e-005	0.0242	5.0000e-005	0.0243	2.8100e-003	5.0000e-005	2.8600e-003	0.0000	4.5904	4.5904	2.0000e-004	0.0000	4.5953

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7400e-003	0.0000	2.7400e-003	3.0000e-004	0.0000	3.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.0800e-003	0.0797	0.0363	1.0000e-004		2.6300e-003	2.6300e-003		2.4200e-003	2.4200e-003	0.0000	8.7830	8.7830	2.8400e-003	0.0000	8.8541
Total	6.0800e-003	0.0797	0.0363	1.0000e-004	2.7400e-003	2.6300e-003	5.3700e-003	3.0000e-004	2.4200e-003	2.7200e-003	0.0000	8.7830	8.7830	2.8400e-003	0.0000	8.8541

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3.16 Solar - Testing and Restoration - 2021

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	2.0000e-005	5.5000e-004	1.2000e-004	0.0000	1.0300e-003	0.0000	1.0400e-003	1.1000e-004	0.0000	1.1000e-004	0.0000	0.1541	0.1541	1.0000e-005	0.0000	0.1542
Vendor	4.2000e-004	0.0131	3.4300e-003	3.0000e-005	0.0217	4.0000e-005	0.0218	2.3100e-003	4.0000e-005	2.3500e-003	0.0000	3.0922	3.0922	1.4000e-004	0.0000	3.0956
Worker	7.4000e-004	6.7000e-004	6.0900e-003	1.0000e-005	1.4600e-003	1.0000e-005	1.4700e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.3441	1.3441	5.0000e-005	0.0000	1.3455
Total	1.1800e-003	0.0143	9.6400e-003	4.0000e-005	0.0242	5.0000e-005	0.0243	2.8100e-003	5.0000e-005	2.8600e-003	0.0000	4.5904	4.5904	2.0000e-004	0.0000	4.5953

3.17 Gen-Tie - Site Preparation - 2021

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					0.0540	0.0000	0.0540	0.0231	0.0000	0.0231	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0151	0.1732	0.0761	1.8000e-004		7.3900e-003	7.3900e-003		6.8000e-003	6.8000e-003	0.0000	15.7189	15.7189	5.0800e-003	0.0000	15.8460
Total	0.0151	0.1732	0.0761	1.8000e-004	0.0540	7.3900e-003	0.0614	0.0231	6.8000e-003	0.0299	0.0000	15.7189	15.7189	5.0800e-003	0.0000	15.8460

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3.17 Gen-Tie - Site Preparation - 2021

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	5.0000e-005	1.4800e-003	3.9000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	3.0000e-005	0.0000	0.3496	0.3496	2.0000e-005	0.0000	0.3499
Worker	2.1000e-004	1.9000e-004	1.7200e-003	0.0000	4.1000e-004	0.0000	4.2000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3799	0.3799	2.0000e-005	0.0000	0.3802
Total	2.6000e-004	1.6700e-003	2.1100e-003	0.0000	5.0000e-004	0.0000	5.1000e-004	1.3000e-004	0.0000	1.4000e-004	0.0000	0.7294	0.7294	4.0000e-005	0.0000	0.7302

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					0.0243	0.0000	0.0243	0.0104	0.0000	0.0104	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0151	0.1732	0.0761	1.8000e-004		7.3900e-003	7.3900e-003		6.8000e-003	6.8000e-003	0.0000	15.7189	15.7189	5.0800e-003	0.0000	15.8460
Total	0.0151	0.1732	0.0761	1.8000e-004	0.0243	7.3900e-003	0.0317	0.0104	6.8000e-003	0.0172	0.0000	15.7189	15.7189	5.0800e-003	0.0000	15.8460

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3.17 Gen-Tie - Site Preparation - 2021

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	5.0000e-005	1.4800e-003	3.9000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	3.0000e-005	0.0000	0.3496	0.3496	2.0000e-005	0.0000	0.3499
Worker	2.1000e-004	1.9000e-004	1.7200e-003	0.0000	4.1000e-004	0.0000	4.2000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3799	0.3799	2.0000e-005	0.0000	0.3802
Total	2.6000e-004	1.6700e-003	2.1100e-003	0.0000	5.0000e-004	0.0000	5.1000e-004	1.3000e-004	0.0000	1.4000e-004	0.0000	0.7294	0.7294	4.0000e-005	0.0000	0.7302

3.17 Gen-Tie - Site Preparation - 2022

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					0.0600	0.0000	0.0600	0.0264	0.0000	0.0264	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0150	0.1703	0.0834	2.1000e-004		7.0600e-003	7.0600e-003		6.5000e-003	6.5000e-003	0.0000	18.1319	18.1319	5.8600e-003	0.0000	18.2785
Total	0.0150	0.1703	0.0834	2.1000e-004	0.0600	7.0600e-003	0.0671	0.0264	6.5000e-003	0.0329	0.0000	18.1319	18.1319	5.8600e-003	0.0000	18.2785

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3.17 Gen-Tie - Site Preparation - 2022

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	5.0000e-005	1.6100e-003	4.1000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.3999	0.3999	2.0000e-005	0.0000	0.4004
Worker	2.2000e-004	2.0000e-004	1.8100e-003	0.0000	4.8000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4229	0.4229	2.0000e-005	0.0000	0.4233
Total	2.7000e-004	1.8100e-003	2.2200e-003	0.0000	5.8000e-004	0.0000	5.8000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.8228	0.8228	4.0000e-005	0.0000	0.8236

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					0.0270	0.0000	0.0270	0.0119	0.0000	0.0119	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0150	0.1703	0.0834	2.1000e-004		7.0600e-003	7.0600e-003		6.5000e-003	6.5000e-003	0.0000	18.1319	18.1319	5.8600e-003	0.0000	18.2785
Total	0.0150	0.1703	0.0834	2.1000e-004	0.0270	7.0600e-003	0.0341	0.0119	6.5000e-003	0.0184	0.0000	18.1319	18.1319	5.8600e-003	0.0000	18.2785

Gonzales Microgrid Construction Analysis - Monterey County, Annual

3.17 Gen-Tie - Site Preparation - 2022

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	5.0000e-005	1.6100e-003	4.1000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.3999	0.3999	2.0000e-005	0.0000	0.4004
Worker	2.2000e-004	2.0000e-004	1.8100e-003	0.0000	4.8000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4229	0.4229	2.0000e-005	0.0000	0.4233
Total	2.7000e-004	1.8100e-003	2.2200e-003	0.0000	5.8000e-004	0.0000	5.8000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.8228	0.8228	4.0000e-005	0.0000	0.8236

3.18 Electric Distribution - Site Clean Up - 2022

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.4400e-003	0.0449	0.0587	9.0000e-005		2.3300e-003	2.3300e-003		2.1400e-003	2.1400e-003	0.0000	7.8442	7.8442	2.5400e-003	0.0000	7.9077
Total	4.4400e-003	0.0449	0.0587	9.0000e-005	0.0000	2.3300e-003	2.3300e-003	0.0000	2.1400e-003	2.1400e-003	0.0000	7.8442	7.8442	2.5400e-003	0.0000	7.9077

Gonzales Microgrid Construction Analysis - Monterey County, Annual

3.18 Electric Distribution - Site Clean Up - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	2.5000e-004	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0761	0.0761	0.0000	0.0000	0.0762
Vendor	3.0000e-005	1.0700e-003	2.7000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.2666	0.2666	1.0000e-005	0.0000	0.2669
Worker	2.6000e-004	2.3000e-004	2.1100e-003	1.0000e-005	5.6000e-004	0.0000	5.6000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4934	0.4934	2.0000e-005	0.0000	0.4938
Total	3.0000e-004	1.5500e-003	2.4400e-003	1.0000e-005	6.5000e-004	0.0000	6.5000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.8361	0.8361	3.0000e-005	0.0000	0.8369

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.4400e-003	0.0449	0.0587	9.0000e-005		2.3300e-003	2.3300e-003		2.1400e-003	2.1400e-003	0.0000	7.8442	7.8442	2.5400e-003	0.0000	7.9076
Total	4.4400e-003	0.0449	0.0587	9.0000e-005	0.0000	2.3300e-003	2.3300e-003	0.0000	2.1400e-003	2.1400e-003	0.0000	7.8442	7.8442	2.5400e-003	0.0000	7.9076

Gonzales Microgrid Construction Analysis - Monterey County, Annual

3.18 Electric Distribution - Site Clean Up - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	2.5000e-004	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0761	0.0761	0.0000	0.0000	0.0762
Vendor	3.0000e-005	1.0700e-003	2.7000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.2666	0.2666	1.0000e-005	0.0000	0.2669
Worker	2.6000e-004	2.3000e-004	2.1100e-003	1.0000e-005	5.6000e-004	0.0000	5.6000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4934	0.4934	2.0000e-005	0.0000	0.4938
Total	3.0000e-004	1.5500e-003	2.4400e-003	1.0000e-005	6.5000e-004	0.0000	6.5000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.8361	0.8361	3.0000e-005	0.0000	0.8369

3.19 Gen-Tie - Above Ground Work - 2022

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	0.0162	0.1598	0.2024	3.1000e-004		8.1900e-003	8.1900e-003		7.5300e-003	7.5300e-003	0.0000	27.1117	27.1117	8.7700e-003	0.0000	27.3309
Total	0.0162	0.1598	0.2024	3.1000e-004		8.1900e-003	8.1900e-003		7.5300e-003	7.5300e-003	0.0000	27.1117	27.1117	8.7700e-003	0.0000	27.3309

Gonzales Microgrid Construction Analysis - Monterey County, Annual

3.19 Gen-Tie - Above Ground Work - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	2.5000e-004	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0761	0.0761	0.0000	0.0000	0.0762
Vendor	1.8000e-004	5.8000e-003	1.4600e-003	2.0000e-005	3.6000e-004	2.0000e-005	3.7000e-004	1.0000e-004	2.0000e-005	1.2000e-004	0.0000	1.4398	1.4398	6.0000e-005	0.0000	1.4413
Worker	1.3100e-003	1.1400e-003	0.0106	3.0000e-005	2.7900e-003	2.0000e-005	2.8100e-003	7.4000e-004	2.0000e-005	7.6000e-004	0.0000	2.4739	2.4739	9.0000e-005	0.0000	2.4761
Total	1.5000e-003	7.1900e-003	0.0121	5.0000e-005	3.1700e-003	4.0000e-005	3.2000e-003	8.4000e-004	4.0000e-005	8.9000e-004	0.0000	3.9897	3.9897	1.5000e-004	0.0000	3.9936

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	0.0162	0.1598	0.2024	3.1000e-004		8.1900e-003	8.1900e-003		7.5300e-003	7.5300e-003	0.0000	27.1117	27.1117	8.7700e-003	0.0000	27.3309
Total	0.0162	0.1598	0.2024	3.1000e-004		8.1900e-003	8.1900e-003		7.5300e-003	7.5300e-003	0.0000	27.1117	27.1117	8.7700e-003	0.0000	27.3309

Gonzales Microgrid Construction Analysis - Monterey County, Annual

3.19 Gen-Tie - Above Ground Work - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	2.5000e-004	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0761	0.0761	0.0000	0.0000	0.0762
Vendor	1.8000e-004	5.8000e-003	1.4600e-003	2.0000e-005	3.6000e-004	2.0000e-005	3.7000e-004	1.0000e-004	2.0000e-005	1.2000e-004	0.0000	1.4398	1.4398	6.0000e-005	0.0000	1.4413
Worker	1.3100e-003	1.1400e-003	0.0106	3.0000e-005	2.7900e-003	2.0000e-005	2.8100e-003	7.4000e-004	2.0000e-005	7.6000e-004	0.0000	2.4739	2.4739	9.0000e-005	0.0000	2.4761
Total	1.5000e-003	7.1900e-003	0.0121	5.0000e-005	3.1700e-003	4.0000e-005	3.2000e-003	8.4000e-004	4.0000e-005	8.9000e-004	0.0000	3.9897	3.9897	1.5000e-004	0.0000	3.9936

3.20 Paving - Powerhouse + BESS - 2022

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	1.9400e-003	0.0178	0.0211	3.0000e-005		8.9000e-004	8.9000e-004		8.3000e-004	8.3000e-004	0.0000	2.8191	2.8191	8.2000e-004	0.0000	2.8396
Paving	2.5800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	4.5200e-003	0.0178	0.0211	3.0000e-005		8.9000e-004	8.9000e-004		8.3000e-004	8.3000e-004	0.0000	2.8191	2.8191	8.2000e-004	0.0000	2.8396

Gonzales Microgrid Construction Analysis - Monterey County, Annual

3.20 Paving - Powerhouse + BESS - 2022

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	4.0000e-005	1.2900e-003	3.2000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	3.0000e-005	0.0000	0.3199	0.3199	1.0000e-005	0.0000	0.3203
Worker	2.0000e-004	1.8000e-004	1.6300e-003	0.0000	4.3000e-004	0.0000	4.3000e-004	1.1000e-004	0.0000	1.2000e-004	0.0000	0.3806	0.3806	1.0000e-005	0.0000	0.3809
Total	2.4000e-004	1.4700e-003	1.9500e-003	0.0000	5.1000e-004	0.0000	5.1000e-004	1.3000e-004	0.0000	1.5000e-004	0.0000	0.7005	0.7005	2.0000e-005	0.0000	0.7012

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	1.9400e-003	0.0178	0.0211	3.0000e-005		8.9000e-004	8.9000e-004		8.3000e-004	8.3000e-004	0.0000	2.8191	2.8191	8.2000e-004	0.0000	2.8396
Paving	2.5800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	4.5200e-003	0.0178	0.0211	3.0000e-005		8.9000e-004	8.9000e-004		8.3000e-004	8.3000e-004	0.0000	2.8191	2.8191	8.2000e-004	0.0000	2.8396

Gonzales Microgrid Construction Analysis - Monterey County, Annual

3.20 Paving - Powerhouse + BESS - 2022

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	4.0000e-005	1.2900e-003	3.2000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	3.0000e-005	0.0000	0.3199	0.3199	1.0000e-005	0.0000	0.3203
Worker	2.0000e-004	1.8000e-004	1.6300e-003	0.0000	4.3000e-004	0.0000	4.3000e-004	1.1000e-004	0.0000	1.2000e-004	0.0000	0.3806	0.3806	1.0000e-005	0.0000	0.3809
Total	2.4000e-004	1.4700e-003	1.9500e-003	0.0000	5.1000e-004	0.0000	5.1000e-004	1.3000e-004	0.0000	1.5000e-004	0.0000	0.7005	0.7005	2.0000e-005	0.0000	0.7012

3.21 Arch Coating - Powerhouse + BESS - 2022

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					
Archit. Coating	0.1099					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.1000e-004	4.2300e-003	5.4400e-003	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004	0.0000	0.7660	0.7660	5.0000e-005	0.0000	0.7672
Total	0.1105	4.2300e-003	5.4400e-003	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004	0.0000	0.7660	0.7660	5.0000e-005	0.0000	0.7672

Gonzales Microgrid Construction Analysis - Monterey County, Annual

3.21 Arch Coating - Powerhouse + BESS - 2022

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	2.0000e-005	6.4000e-004	1.6000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1600	0.1600	1.0000e-005	0.0000	0.1602
Worker	4.0000e-005	4.0000e-005	3.6000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0846	0.0846	0.0000	0.0000	0.0847
Total	6.0000e-005	6.8000e-004	5.2000e-004	0.0000	1.4000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.2446	0.2446	1.0000e-005	0.0000	0.2448

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					
Archit. Coating	0.1099					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.1000e-004	4.2300e-003	5.4400e-003	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004	0.0000	0.7660	0.7660	5.0000e-005	0.0000	0.7672
Total	0.1105	4.2300e-003	5.4400e-003	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004	0.0000	0.7660	0.7660	5.0000e-005	0.0000	0.7672

Gonzales Microgrid Construction Analysis - Monterey County, Annual

3.21 Arch Coating - Powerhouse + BESS - 2022

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	2.0000e-005	6.4000e-004	1.6000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1600	0.1600	1.0000e-005	0.0000	0.1602
Worker	4.0000e-005	4.0000e-005	3.6000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0846	0.0846	0.0000	0.0000	0.0847
Total	6.0000e-005	6.8000e-004	5.2000e-004	0.0000	1.4000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.2446	0.2446	1.0000e-005	0.0000	0.2448

3.22 Gen-Tie - Interconnection Construction - 2022

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	0.0108	0.1178	0.0895	2.0000e-004		4.8800e-003	4.8800e-003		4.4900e-003	4.4900e-003	0.0000	17.7656	17.7656	5.7500e-003	0.0000	17.9093
Total	0.0108	0.1178	0.0895	2.0000e-004		4.8800e-003	4.8800e-003		4.4900e-003	4.4900e-003	0.0000	17.7656	17.7656	5.7500e-003	0.0000	17.9093

Gonzales Microgrid Construction Analysis - Monterey County, Annual

3.22 Gen-Tie - Interconnection Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	2.5000e-004	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0761	0.0761	0.0000	0.0000	0.0762
Vendor	7.0000e-005	2.3600e-003	6.0000e-004	1.0000e-005	1.4000e-004	1.0000e-005	1.5000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.5866	0.5866	3.0000e-005	0.0000	0.5872
Worker	5.8000e-004	5.0000e-004	4.6500e-003	1.0000e-005	1.2200e-003	1.0000e-005	1.2300e-003	3.3000e-004	1.0000e-005	3.3000e-004	0.0000	1.0854	1.0854	4.0000e-005	0.0000	1.0864
Total	6.6000e-004	3.1100e-003	5.3100e-003	2.0000e-005	1.3800e-003	2.0000e-005	1.4000e-003	3.7000e-004	2.0000e-005	3.9000e-004	0.0000	1.7481	1.7481	7.0000e-005	0.0000	1.7498

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	0.0108	0.1178	0.0895	2.0000e-004		4.8800e-003	4.8800e-003		4.4900e-003	4.4900e-003	0.0000	17.7656	17.7656	5.7500e-003	0.0000	17.9093
Total	0.0108	0.1178	0.0895	2.0000e-004		4.8800e-003	4.8800e-003		4.4900e-003	4.4900e-003	0.0000	17.7656	17.7656	5.7500e-003	0.0000	17.9093

Gonzales Microgrid Construction Analysis - Monterey County, Annual

3.22 Gen-Tie - Interconnection Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	2.5000e-004	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0761	0.0761	0.0000	0.0000	0.0762
Vendor	7.0000e-005	2.3600e-003	6.0000e-004	1.0000e-005	1.4000e-004	1.0000e-005	1.5000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.5866	0.5866	3.0000e-005	0.0000	0.5872
Worker	5.8000e-004	5.0000e-004	4.6500e-003	1.0000e-005	1.2200e-003	1.0000e-005	1.2300e-003	3.3000e-004	1.0000e-005	3.3000e-004	0.0000	1.0854	1.0854	4.0000e-005	0.0000	1.0864
Total	6.6000e-004	3.1100e-003	5.3100e-003	2.0000e-005	1.3800e-003	2.0000e-005	1.4000e-003	3.7000e-004	2.0000e-005	3.9000e-004	0.0000	1.7481	1.7481	7.0000e-005	0.0000	1.7498

3.23 Arch Coating - Electric Distribution - 2022

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					
Archit. Coating	8.3000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0000e-004	1.4100e-003	1.8100e-003	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.2553	0.2553	2.0000e-005	0.0000	0.2557
Total	1.0300e-003	1.4100e-003	1.8100e-003	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.2553	0.2553	2.0000e-005	0.0000	0.2557

Gonzales Microgrid Construction Analysis - Monterey County, Annual

3.23 Arch Coating - Electric Distribution - 2022

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	6.0000e-005	5.0000e-005	4.8000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1128	0.1128	0.0000	0.0000	0.1129
Total	6.0000e-005	5.0000e-005	4.8000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1128	0.1128	0.0000	0.0000	0.1129

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					
Archit. Coating	8.3000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0000e-004	1.4100e-003	1.8100e-003	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.2553	0.2553	2.0000e-005	0.0000	0.2557
Total	1.0300e-003	1.4100e-003	1.8100e-003	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.2553	0.2553	2.0000e-005	0.0000	0.2557

Gonzales Microgrid Construction Analysis - Monterey County, Annual

3.23 Arch Coating - Electric Distribution - 2022

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	6.0000e-005	5.0000e-005	4.8000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1128	0.1128	0.0000	0.0000	0.1129
Total	6.0000e-005	5.0000e-005	4.8000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1128	0.1128	0.0000	0.0000	0.1129

3.24 Sub Transmission - Site Preparation - 2022

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					0.0354	0.0000	0.0354	0.0171	0.0000	0.0171	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.9900e-003	0.1136	0.0556	1.4000e-004		4.7100e-003	4.7100e-003		4.3300e-003	4.3300e-003	0.0000	12.0880	12.0880	3.9100e-003	0.0000	12.1857
Total	9.9900e-003	0.1136	0.0556	1.4000e-004	0.0354	4.7100e-003	0.0401	0.0171	4.3300e-003	0.0215	0.0000	12.0880	12.0880	3.9100e-003	0.0000	12.1857

Gonzales Microgrid Construction Analysis - Monterey County, Annual

3.24 Sub Transmission - Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	2.5000e-004	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0761	0.0761	0.0000	0.0000	0.0762
Vendor	1.0000e-004	3.2200e-003	8.1000e-004	1.0000e-005	2.0000e-004	1.0000e-005	2.1000e-004	6.0000e-005	1.0000e-005	7.0000e-005	0.0000	0.7999	0.7999	3.0000e-005	0.0000	0.8007
Worker	1.5000e-004	1.3000e-004	1.2100e-003	0.0000	3.2000e-004	0.0000	3.2000e-004	8.0000e-005	0.0000	9.0000e-005	0.0000	0.2819	0.2819	1.0000e-005	0.0000	0.2822
Total	2.6000e-004	3.6000e-003	2.0800e-003	1.0000e-005	5.4000e-004	1.0000e-005	5.5000e-004	1.4000e-004	1.0000e-005	1.7000e-004	0.0000	1.1579	1.1579	4.0000e-005	0.0000	1.1591

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					0.0159	0.0000	0.0159	7.7100e-003	0.0000	7.7100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.9900e-003	0.1136	0.0556	1.4000e-004		4.7100e-003	4.7100e-003		4.3300e-003	4.3300e-003	0.0000	12.0879	12.0879	3.9100e-003	0.0000	12.1857
Total	9.9900e-003	0.1136	0.0556	1.4000e-004	0.0159	4.7100e-003	0.0207	7.7100e-003	4.3300e-003	0.0120	0.0000	12.0879	12.0879	3.9100e-003	0.0000	12.1857

Gonzales Microgrid Construction Analysis - Monterey County, Annual

3.24 Sub Transmission - Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	2.5000e-004	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0761	0.0761	0.0000	0.0000	0.0762
Vendor	1.0000e-004	3.2200e-003	8.1000e-004	1.0000e-005	2.0000e-004	1.0000e-005	2.1000e-004	6.0000e-005	1.0000e-005	7.0000e-005	0.0000	0.7999	0.7999	3.0000e-005	0.0000	0.8007
Worker	1.5000e-004	1.3000e-004	1.2100e-003	0.0000	3.2000e-004	0.0000	3.2000e-004	8.0000e-005	0.0000	9.0000e-005	0.0000	0.2819	0.2819	1.0000e-005	0.0000	0.2822
Total	2.6000e-004	3.6000e-003	2.0800e-003	1.0000e-005	5.4000e-004	1.0000e-005	5.5000e-004	1.4000e-004	1.0000e-005	1.7000e-004	0.0000	1.1579	1.1579	4.0000e-005	0.0000	1.1591

3.25 Sub Transmission - Below Ground - 2022

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	0.0234	0.2309	0.2923	4.5000e-004		0.0118	0.0118		0.0109	0.0109	0.0000	39.1614	39.1614	0.0127	0.0000	39.4780
Total	0.0234	0.2309	0.2923	4.5000e-004		0.0118	0.0118		0.0109	0.0109	0.0000	39.1614	39.1614	0.0127	0.0000	39.4780

Gonzales Microgrid Construction Analysis - Monterey County, Annual

3.25 Sub Transmission - Below Ground - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	2.5000e-004	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0761	0.0761	0.0000	0.0000	0.0762
Vendor	2.6000e-004	8.3800e-003	2.1100e-003	2.0000e-005	5.1000e-004	2.0000e-005	5.4000e-004	1.5000e-004	2.0000e-005	1.7000e-004	0.0000	2.0796	2.0796	9.0000e-005	0.0000	2.0819
Worker	1.9000e-003	1.6500e-003	0.0153	4.0000e-005	4.0300e-003	3.0000e-005	4.0600e-003	1.0700e-003	3.0000e-005	1.1000e-003	0.0000	3.5734	3.5734	1.3000e-004	0.0000	3.5767
Total	2.1700e-003	0.0103	0.0175	6.0000e-005	4.5600e-003	5.0000e-005	4.6200e-003	1.2200e-003	5.0000e-005	1.2800e-003	0.0000	5.7291	5.7291	2.2000e-004	0.0000	5.7347

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	0.0234	0.2309	0.2923	4.5000e-004		0.0118	0.0118		0.0109	0.0109	0.0000	39.1613	39.1613	0.0127	0.0000	39.4780
Total	0.0234	0.2309	0.2923	4.5000e-004		0.0118	0.0118		0.0109	0.0109	0.0000	39.1613	39.1613	0.0127	0.0000	39.4780

Gonzales Microgrid Construction Analysis - Monterey County, Annual

3.25 Sub Transmission - Below Ground - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	2.5000e-004	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0761	0.0761	0.0000	0.0000	0.0762
Vendor	2.6000e-004	8.3800e-003	2.1100e-003	2.0000e-005	5.1000e-004	2.0000e-005	5.4000e-004	1.5000e-004	2.0000e-005	1.7000e-004	0.0000	2.0796	2.0796	9.0000e-005	0.0000	2.0819
Worker	1.9000e-003	1.6500e-003	0.0153	4.0000e-005	4.0300e-003	3.0000e-005	4.0600e-003	1.0700e-003	3.0000e-005	1.1000e-003	0.0000	3.5734	3.5734	1.3000e-004	0.0000	3.5767
Total	2.1700e-003	0.0103	0.0175	6.0000e-005	4.5600e-003	5.0000e-005	4.6200e-003	1.2200e-003	5.0000e-005	1.2800e-003	0.0000	5.7291	5.7291	2.2000e-004	0.0000	5.7347

3.26 Sub Transmission - System Installation - 2022

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	0.0158	0.1713	0.1301	2.9000e-004		7.1000e-003	7.1000e-003		6.5300e-003	6.5300e-003	0.0000	25.8409	25.8409	8.3600e-003	0.0000	26.0499
Total	0.0158	0.1713	0.1301	2.9000e-004		7.1000e-003	7.1000e-003		6.5300e-003	6.5300e-003	0.0000	25.8409	25.8409	8.3600e-003	0.0000	26.0499

Gonzales Microgrid Construction Analysis - Monterey County, Annual

3.26 Sub Transmission - System Installation - 2022

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	2.0000e-005	7.6000e-004	1.7000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.2283	0.2283	1.0000e-005	0.0000	0.2285
Vendor	4.3000e-004	0.0138	3.4600e-003	4.0000e-005	8.4000e-004	4.0000e-005	8.8000e-004	2.4000e-004	4.0000e-005	2.8000e-004	0.0000	3.4127	3.4127	1.5000e-004	0.0000	3.4165
Worker	9.6000e-004	8.3000e-004	7.7300e-003	2.0000e-005	2.0300e-003	2.0000e-005	2.0500e-003	5.4000e-004	2.0000e-005	5.6000e-004	0.0000	1.8043	1.8043	7.0000e-005	0.0000	1.8060
Total	1.4100e-003	0.0154	0.0114	6.0000e-005	2.9200e-003	6.0000e-005	2.9800e-003	7.9000e-004	6.0000e-005	8.6000e-004	0.0000	5.4453	5.4453	2.3000e-004	0.0000	5.4509

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	0.0158	0.1713	0.1301	2.9000e-004		7.1000e-003	7.1000e-003		6.5300e-003	6.5300e-003	0.0000	25.8409	25.8409	8.3600e-003	0.0000	26.0498
Total	0.0158	0.1713	0.1301	2.9000e-004		7.1000e-003	7.1000e-003		6.5300e-003	6.5300e-003	0.0000	25.8409	25.8409	8.3600e-003	0.0000	26.0498

Gonzales Microgrid Construction Analysis - Monterey County, Annual

3.26 Sub Transmission - System Installation - 2022

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	2.0000e-005	7.6000e-004	1.7000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.2283	0.2283	1.0000e-005	0.0000	0.2285
Vendor	4.3000e-004	0.0138	3.4600e-003	4.0000e-005	8.4000e-004	4.0000e-005	8.8000e-004	2.4000e-004	4.0000e-005	2.8000e-004	0.0000	3.4127	3.4127	1.5000e-004	0.0000	3.4165
Worker	9.6000e-004	8.3000e-004	7.7300e-003	2.0000e-005	2.0300e-003	2.0000e-005	2.0500e-003	5.4000e-004	2.0000e-005	5.6000e-004	0.0000	1.8043	1.8043	7.0000e-005	0.0000	1.8060
Total	1.4100e-003	0.0154	0.0114	6.0000e-005	2.9200e-003	6.0000e-005	2.9800e-003	7.9000e-004	6.0000e-005	8.6000e-004	0.0000	5.4453	5.4453	2.3000e-004	0.0000	5.4509

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Gonzales Microgrid Construction Analysis - Monterey County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

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Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.543895	0.028716	0.205211	0.131753	0.021859	0.005504	0.019097	0.027308	0.004155	0.002738	0.007724	0.001236	0.000805
Other Asphalt Surfaces	0.543895	0.028716	0.205211	0.131753	0.021859	0.005504	0.019097	0.027308	0.004155	0.002738	0.007724	0.001236	0.000805
Parking Lot	0.543895	0.028716	0.205211	0.131753	0.021859	0.005504	0.019097	0.027308	0.004155	0.002738	0.007724	0.001236	0.000805

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	36.4512	36.4512	1.6500e-003	3.4000e-004	36.5940
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	36.4512	36.4512	1.6500e-003	3.4000e-004	36.5940
NaturalGas Mitigated	2.1300e-003	0.0194	0.0163	1.2000e-004		1.4700e-003	1.4700e-003		1.4700e-003	1.4700e-003	0.0000	21.1161	21.1161	4.0000e-004	3.9000e-004	21.2415
NaturalGas Unmitigated	2.1300e-003	0.0194	0.0163	1.2000e-004		1.4700e-003	1.4700e-003		1.4700e-003	1.4700e-003	0.0000	21.1161	21.1161	4.0000e-004	3.9000e-004	21.2415

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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	tons/yr										MT/yr					
General Light Industry	395700	2.1300e-003	0.0194	0.0163	1.2000e-004		1.4700e-003	1.4700e-003		1.4700e-003	1.4700e-003	0.0000	21.1161	21.1161	4.0000e-004	3.9000e-004	21.2415
Other 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	0.0000
Parking Lot	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	0.0000
Total		2.1300e-003	0.0194	0.0163	1.2000e-004		1.4700e-003	1.4700e-003		1.4700e-003	1.4700e-003	0.0000	21.1161	21.1161	4.0000e-004	3.9000e-004	21.2415

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	395700	2.1300e-003	0.0194	0.0163	1.2000e-004		1.4700e-003	1.4700e-003		1.4700e-003	1.4700e-003	0.0000	21.1161	21.1161	4.0000e-004	3.9000e-004	21.2415
Other 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	0.0000
Parking Lot	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	0.0000
Total		2.1300e-003	0.0194	0.0163	1.2000e-004		1.4700e-003	1.4700e-003		1.4700e-003	1.4700e-003	0.0000	21.1161	21.1161	4.0000e-004	3.9000e-004	21.2415

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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			
General Light Industry	123900	36.0439	1.6300e-003	3.4000e-004	36.1852
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	1400	0.4073	2.0000e-005	0.0000	0.4089
Total		36.4512	1.6500e-003	3.4000e-004	36.5940

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	123900	36.0439	1.6300e-003	3.4000e-004	36.1852
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	1400	0.4073	2.0000e-005	0.0000	0.4089
Total		36.4512	1.6500e-003	3.4000e-004	36.5940

6.0 Area Detail

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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	tons/yr										MT/yr					
Mitigated	0.0947	0.0000	3.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.7000e-004	6.7000e-004	0.0000	0.0000	7.1000e-004
Unmitigated	0.0947	0.0000	3.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.7000e-004	6.7000e-004	0.0000	0.0000	7.1000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0305					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0641					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.0000e-005	0.0000	3.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.7000e-004	6.7000e-004	0.0000	0.0000	7.1000e-004
Total	0.0947	0.0000	3.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.7000e-004	6.7000e-004	0.0000	0.0000	7.1000e-004

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0305					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0641					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.0000e-005	0.0000	3.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.7000e-004	6.7000e-004	0.0000	0.0000	7.1000e-004
Total	0.0947	0.0000	3.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.7000e-004	6.7000e-004	0.0000	0.0000	7.1000e-004

7.0 Water Detail

7.1 Mitigation Measures Water

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

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

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Category/Year

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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

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

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11.0 Vegetation

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**Gonzales Microgrid Construction Analysis
Monterey County, Summer**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	15.00	1000sqft	0.34	15,000.00	0
Other Asphalt Surfaces	1.88	Acre	1.88	81,892.80	0
Parking Lot	10.00	Space	0.09	4,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.6	Precipitation Freq (Days)	55
Climate Zone	4			Operational Year	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Construction only analysis.

Land Use - Construction only analysis.

Construction Phase - Provided by applicant.

Off-road Equipment - Per applicant provided information.

Off-road Equipment - Per applicant.

Off-road Equipment - Applicant provided information.

Off-road Equipment - Per applicant.

Off-road Equipment - Per applicant.

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Off-road Equipment - Per applicant. Ozzie Padder modeled as 175 hp Crawler Tractor.

Off-road Equipment - Per applicant.

Off-road Equipment - Per applicant.

Off-road Equipment - Per applicant. Ozzie Padder modeled as 175 hp Crawler Tractor.

Off-road Equipment - Per applicant. Line Truck modeled as Aerial Lift. Boom Truck modeled as Crane. LoDrill modeled as Excavator.

Off-road Equipment - Per applicant.

Off-road Equipment - Per applicant provided information.

Off-road Equipment - Per applicant.

Off-road Equipment - Per applicant provided information.

Off-road Equipment - Per applicant.

Off-road Equipment - Applicant provided information.

Off-road Equipment - Per applicant

Off-road Equipment - Per applicant.

Off-road Equipment - Per applicant

Off-road Equipment - Per applicant

Off-road Equipment - Per applicant. ATV modeled as off-highway tractor with 51 hp. Pile Driver modeled as Bore/Drill Rig.

Off-road Equipment - Per applicant.

Off-road Equipment - Per applicant. Ozzie Padder modeled as 175 hp Crawler Tractor.

Off-road Equipment - Per applicant. Ozzie Padder modeled as 175 hp Crawler Tractor.

Off-road Equipment - Per applicant.

Off-road Equipment - Per applicant. Line Truck modeled as Aerial Lift. Boom Truck modeled as Crane. LoDrill modeled as Excavator.

Trips and VMT - Per applicant.

On-road Fugitive Dust - Default values other than Solar construction site assumes 98% paved roads.

Demolition - None.

Grading - Material import or export accounted for in haul truck trips for each construction phase, assumed that onsite materials are balanced for grading. Import due to paving materials is included in truck trips.

Architectural Coating - Based on applicant provided information.

Vehicle Trips - Construction only.

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Woodstoves -

Energy Use -

Water And Wastewater - Construction only.

Solid Waste - Construction only.

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	7,500.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	7,500.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	22,500.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	22,500.00	0.00
tblArchitecturalCoating	ConstArea_Parking	5,154.00	1,620.00
tblArchitecturalCoating	ConstArea_Parking	5,154.00	240.00
tblArchitecturalCoating	ConstArea_Parking	5,154.00	0.00
tblAreaCoating	Area_Nonresidential_Exterior	7500	20000
tblAreaCoating	Area_Nonresidential_Interior	22500	60000
tblAreaCoating	Area_Parking	5154	7741
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	40
tblConstructionPhase	NumDays	10.00	3.00
tblConstructionPhase	NumDays	10.00	6.00
tblConstructionPhase	NumDays	10.00	2.00
tblConstructionPhase	NumDays	220.00	56.00
tblConstructionPhase	NumDays	220.00	27.00
tblConstructionPhase	NumDays	220.00	22.00
tblConstructionPhase	NumDays	220.00	39.00
tblConstructionPhase	NumDays	220.00	32.00

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tblConstructionPhase	NumDays	220.00	66.00
tblConstructionPhase	NumDays	220.00	111.00
tblConstructionPhase	NumDays	220.00	44.00
tblConstructionPhase	NumDays	6.00	4.00
tblConstructionPhase	NumDays	6.00	11.00
tblConstructionPhase	NumDays	6.00	35.00
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tblConstructionPhase	NumDays	10.00	6.00
tblConstructionPhase	NumDays	3.00	2.00
tblConstructionPhase	NumDays	3.00	10.00
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tblConstructionPhase	NumDays	3.00	10.00
tblConstructionPhase	NumDays	3.00	15.00
tblConstructionPhase	NumDays	3.00	10.00
tblConstructionPhase	NumDays	3.00	20.00
tblConstructionPhase	NumDays	3.00	2.00
tblGrading	AcresOfGrading	1.50	3.00
tblGrading	AcresOfGrading	1.00	0.00
tblOffRoadEquipment	HorsePower	212.00	175.00
tblOffRoadEquipment	HorsePower	212.00	175.00
tblOffRoadEquipment	HorsePower	212.00	175.00
tblOffRoadEquipment	HorsePower	212.00	175.00
tblOffRoadEquipment	HorsePower	124.00	51.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00

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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00

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tbloffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tbloffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tbloffRoadEquipment	PhaseName		Gen-Tie - Interconnection Construction
tbloffRoadEquipment	PhaseName		Solar - System Installation
tbloffRoadEquipment	PhaseName		Electric Distribution - Above Ground
tbloffRoadEquipment	PhaseName		Solar - Underground Collector Lines
tbloffRoadEquipment	PhaseName		Electric Distribution - Above Ground
tbloffRoadEquipment	PhaseName		Gen-Tie - Interconnection Construction
tbloffRoadEquipment	PhaseName		Solar - Underground Collector Lines
tbloffRoadEquipment	PhaseName		Solar - System Installation
tbloffRoadEquipment	PhaseName		Electric Distribution - Site Preparation
tbloffRoadEquipment	PhaseName		Electric Distribution - Above Ground
tbloffRoadEquipment	PhaseName		Solar - Site Preparation
tbloffRoadEquipment	PhaseName		Solar - Underground Collector Lines
tbloffRoadEquipment	PhaseName		Electric Distribution - Above Ground
tbloffRoadEquipment	PhaseName		Solar - Fence Installation
tbloffRoadEquipment	PhaseName		Solar - System Installation
tbloffRoadEquipment	PhaseName		Electric Distribution - Site Preparation
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tbloffRoadEquipment	PhaseName		Solar - Testing and Restoration
tbloffRoadEquipment	PhaseName		Solar - Fence Installation
tbloffRoadEquipment	UsageHours	8.00	6.00
tbloffRoadEquipment	UsageHours	8.00	6.00
tbloffRoadEquipment	UsageHours	8.00	7.00
tbloffRoadEquipment	UsageHours	8.00	4.00
tbloffRoadEquipment	UsageHours	7.00	6.00

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tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
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tblOnRoadDust	HaulingPercentPave	100.00	98.00
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tblOnRoadDust	HaulingPercentPave	100.00	98.00
tblOnRoadDust	HaulingPercentPave	100.00	98.00
tblOnRoadDust	HaulingPercentPave	100.00	98.00
tblOnRoadDust	VendorPercentPave	100.00	98.00
tblOnRoadDust	VendorPercentPave	100.00	98.00

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tblOnRoadDust	VendorPercentPave	100.00	98.00
tblOnRoadDust	VendorPercentPave	100.00	98.00
tblOnRoadDust	VendorPercentPave	100.00	98.00
tblOnRoadDust	VendorPercentPave	100.00	98.00
tblSolidWaste	SolidWasteGenerationRate	18.60	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	8.00
tblTripsAndVMT	HaulingTripNumber	0.00	2.00
tblTripsAndVMT	HaulingTripNumber	0.00	4.00
tblTripsAndVMT	HaulingTripNumber	0.00	2.00
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tblTripsAndVMT	HaulingTripNumber	0.00	2.00
tblTripsAndVMT	HaulingTripNumber	0.00	2.00
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tblTripsAndVMT	HaulingTripNumber	0.00	2.00
tblTripsAndVMT	HaulingTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripNumber	17.00	10.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	17.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00

Gonzales Microgrid Construction Analysis - Monterey County, Summer

tblTripsAndVMT	VendorTripNumber	0.00	8.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	17.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	17.00	4.00
tblTripsAndVMT	VendorTripNumber	17.00	8.00
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripNumber	17.00	14.00
tblTripsAndVMT	VendorTripNumber	17.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	17.00	2.00
tblTripsAndVMT	WorkerTripNumber	5.00	6.00
tblTripsAndVMT	WorkerTripNumber	8.00	4.00
tblTripsAndVMT	WorkerTripNumber	13.00	20.00
tblTripsAndVMT	WorkerTripNumber	13.00	14.00
tblTripsAndVMT	WorkerTripNumber	42.00	30.00
tblTripsAndVMT	WorkerTripNumber	8.00	14.00
tblTripsAndVMT	WorkerTripNumber	5.00	16.00
tblTripsAndVMT	WorkerTripNumber	13.00	8.00
tblTripsAndVMT	WorkerTripNumber	15.00	14.00
tblTripsAndVMT	WorkerTripNumber	42.00	26.00
tblTripsAndVMT	WorkerTripNumber	8.00	4.00
tblTripsAndVMT	WorkerTripNumber	42.00	14.00
tblTripsAndVMT	WorkerTripNumber	8.00	16.00
tblTripsAndVMT	WorkerTripNumber	13.00	8.00
tblTripsAndVMT	WorkerTripNumber	42.00	26.00
tblTripsAndVMT	WorkerTripNumber	42.00	16.00

Gonzales Microgrid Construction Analysis - Monterey County, Summer

tblTripsAndVMT	WorkerTripNumber	15.00	14.00
tblTripsAndVMT	WorkerTripNumber	42.00	116.00
tblTripsAndVMT	WorkerTripNumber	42.00	16.00
tblTripsAndVMT	WorkerTripNumber	10.00	14.00
tblTripsAndVMT	WorkerTripNumber	8.00	12.00
tblTripsAndVMT	WorkerTripNumber	42.00	14.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	3,468,750.00	0.00

2.0 Emissions Summary

Gonzales Microgrid Construction Analysis - Monterey County, Summer

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.5188	3.0000e-005	2.7500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.8800e-003	5.8800e-003	2.0000e-005		6.2700e-003
Energy	0.0117	0.1063	0.0893	6.4000e-004		8.0800e-003	8.0800e-003		8.0800e-003	8.0800e-003		127.5423	127.5423	2.4400e-003	2.3400e-003	128.3002
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.5305	0.1063	0.0920	6.4000e-004	0.0000	8.0900e-003	8.0900e-003	0.0000	8.0900e-003	8.0900e-003		127.5482	127.5482	2.4600e-003	2.3400e-003	128.3065

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	0.5188	3.0000e-005	2.7500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.8800e-003	5.8800e-003	2.0000e-005		6.2700e-003
Energy	0.0117	0.1063	0.0893	6.4000e-004		8.0800e-003	8.0800e-003		8.0800e-003	8.0800e-003		127.5423	127.5423	2.4400e-003	2.3400e-003	128.3002
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.5305	0.1063	0.0920	6.4000e-004	0.0000	8.0900e-003	8.0900e-003	0.0000	8.0900e-003	8.0900e-003		127.5482	127.5482	2.4600e-003	2.3400e-003	128.3065

Gonzales Microgrid Construction Analysis - Monterey County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
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 - Powerhouse + BESS	Site Preparation	8/1/2021	8/3/2021	5	2	
2	Solar - Fence Installation	Site Preparation	8/1/2021	8/21/2021	5	15	
3	Solar - Site Preparation	Site Preparation	8/1/2021	8/28/2021	5	20	
4	Grading - Powerhouse + BESS	Grading	8/4/2021	8/18/2021	5	11	
5	Solar - System Installation	Building Construction	8/15/2021	11/15/2021	5	66	
6	Building Construction - Powerhouse + BESS	Building Construction	8/20/2021	1/21/2022	5	111	
7	Solar - Underground Collector Lines	Grading	8/29/2021	10/15/2021	5	35	
8	Site Preparation - Bodega Road	Site Preparation	9/15/2021	9/16/2021	5	2	
9	Solar - Collector Substation	Building Construction	9/15/2021	11/15/2021	5	44	
10	Grading - Bodega Road	Grading	9/17/2021	9/22/2021	5	4	
11	Paving - Bodega Road	Paving	9/23/2021	10/22/2021	5	22	
12	Electric Distribution - Site Preparation	Site Preparation	10/1/2021	10/14/2021	5	10	
13	Electric Distribution - Above Ground	Building Construction	10/15/2021	12/31/2021	5	56	
14	Arch Coating - Bodega Road	Architectural Coating	10/23/2021	10/27/2021	5	3	
15	Solar - Testing and Restoration	Site Preparation	11/15/2021	12/15/2021	5	23	
16	Gen-Tie - Site Preparation	Site Preparation	12/15/2021	1/22/2022	5	28	
17	Electric Distribution - Site Clean Up	Site Preparation	1/1/2022	1/15/2022	5	10	
18	Gen-Tie - Above Ground Work	Building Construction	1/1/2022	2/8/2022	5	27	

Gonzales Microgrid Construction Analysis - Monterey County, Summer

19	Paving - Powerhouse + BESS	Paving	1/5/2022	1/12/2022	5	6
20	Arch Coating - Powerhouse + BESS	Architectural Coating	1/14/2022	1/21/2022	5	6
21	Gen-Tie - Interconnection Construction	Building Construction	1/15/2022	2/15/2022	5	22
22	Arch Coating - Electric Distribution	Architectural Coating	1/16/2022	1/18/2022	5	2
23	Sub Transmission - Site Preparation	Site Preparation	7/1/2022	7/14/2022	5	10
24	Sub Transmission - Below Ground	Building Construction	7/15/2022	9/7/2022	5	39
25	Sub Transmission - System Installation	Building Construction	9/8/2022	10/22/2022	5	32

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 1.97

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 - Powerhouse + BESS	Graders	1	8.00	187	0.41
Site Preparation - Powerhouse + BESS	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Solar - Fence Installation	Rough Terrain Forklifts	1	8.00	100	0.40
Solar - Fence Installation	Skid Steer Loaders	3	8.00	65	0.37
Solar - Site Preparation	Graders	2	8.00	187	0.41
Solar - Site Preparation	Rollers	2	8.00	80	0.38
Solar - Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Solar - Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading - Powerhouse + BESS	Concrete/Industrial Saws	1	8.00	81	0.73
Grading - Powerhouse + BESS	Rubber Tired Dozers	1	1.00	247	0.40

Gonzales Microgrid Construction Analysis - Monterey County, Summer

Grading - Powerhouse + BESS	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Solar - System Installation	Bore/Drill Rigs	2	8.00	221	0.50
Solar - System Installation	Cranes	1	7.00	231	0.29
Solar - System Installation	Off-Highway Tractors	10	8.00	51	0.44
Solar - System Installation	Rough Terrain Forklifts	4	8.00	100	0.40
Building Construction - Powerhouse + BESS	Cranes	1	4.00	231	0.29
Building Construction - Powerhouse + BESS	Forklifts	2	6.00	89	0.20
Building Construction - Powerhouse + BESS	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Solar - Underground Collector Lines	Crawler Tractors	1	8.00	175	0.43
Solar - Underground Collector Lines	Excavators	2	8.00	158	0.38
Solar - Underground Collector Lines	Rollers	1	8.00	80	0.38
Site Preparation - Bodega Road	Graders	1	8.00	187	0.41
Site Preparation - Bodega Road	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation - Bodega Road	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Solar - Collector Substation	Air Compressors	1	8.00	78	0.48
Solar - Collector Substation	Cranes	1	8.00	231	0.29
Solar - Collector Substation	Generator Sets	1	8.00	84	0.74
Solar - Collector Substation	Rough Terrain Forklifts	2	8.00	100	0.40
Solar - Collector Substation	Tractors/Loaders/Backhoes	2	4.00	97	0.37
Solar - Collector Substation	Welders	1	4.00	46	0.45
Grading - Bodega Road	Excavators	0	8.00	158	0.38
Grading - Bodega Road	Graders	1	6.00	187	0.41
Grading - Bodega Road	Rubber Tired Dozers	1	6.00	247	0.40
Grading - Bodega Road	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving - Bodega Road	Cement and Mortar Mixers	1	6.00	9	0.56
Paving - Bodega Road	Pavers	1	6.00	130	0.42

Gonzales Microgrid Construction Analysis - Monterey County, Summer

Paving - Bodega Road	Paving Equipment	1	8.00	132	0.36
Paving - Bodega Road	Rollers	1	7.00	80	0.38
Paving - Bodega Road	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Electric Distribution - Site Preparation	Graders	2	8.00	187	0.41
Electric Distribution - Site Preparation	Rollers	1	8.00	80	0.38
Electric Distribution - Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Electric Distribution - Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Electric Distribution - Above Ground	Crawler Tractors	1	8.00	175	0.43
Electric Distribution - Above Ground	Excavators	2	8.00	158	0.38
Electric Distribution - Above Ground	Rollers	1	8.00	80	0.38
Electric Distribution - Above Ground	Rough Terrain Forklifts	1	8.00	100	0.40
Arch Coating - Bodega Road	Air Compressors	1	6.00	78	0.48
Solar - Testing and Restoration	Graders	1	8.00	187	0.41
Solar - Testing and Restoration	Skid Steer Loaders	1	8.00	65	0.37
Gen-Tie - Site Preparation	Graders	2	8.00	187	0.41
Gen-Tie - Site Preparation	Rollers	1	8.00	80	0.38
Gen-Tie - Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Gen-Tie - Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Electric Distribution - Site Clean Up	Pavers	1	8.00	130	0.42
Electric Distribution - Site Clean Up	Paving Equipment	2	6.00	132	0.36
Electric Distribution - Site Clean Up	Rollers	2	6.00	80	0.38
Electric Distribution - Site Clean Up	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Gen-Tie - Above Ground Work	Crawler Tractors	1	8.00	175	0.43
Gen-Tie - Above Ground Work	Excavators	2	8.00	158	0.38
Gen-Tie - Above Ground Work	Rollers	1	8.00	80	0.38
Gen-Tie - Above Ground Work	Rough Terrain Forklifts	1	8.00	100	0.40
Paving - Powerhouse + BESS	Cement and Mortar Mixers	4	6.00	9	0.56

Gonzales Microgrid Construction Analysis - Monterey County, Summer

Paving - Powerhouse + BESS	Pavers	1	7.00	130	0.42
Paving - Powerhouse + BESS	Rollers	1	7.00	80	0.38
Paving - Powerhouse + BESS	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Arch Coating - Powerhouse + BESS	Air Compressors	1	6.00	78	0.48
Gen-Tie - Interconnection Construction	Aerial Lifts	1	8.00	63	0.31
Gen-Tie - Interconnection Construction	Cranes	2	8.00	231	0.29
Gen-Tie - Interconnection Construction	Excavators	1	8.00	158	0.38
Arch Coating - Electric Distribution	Air Compressors	1	6.00	78	0.48
Sub Transmission - Site Preparation	Graders	2	8.00	187	0.41
Sub Transmission - Site Preparation	Rollers	1	8.00	80	0.38
Sub Transmission - Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Sub Transmission - Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Sub Transmission - Below Ground	Crawler Tractors	1	8.00	175	0.43
Sub Transmission - Below Ground	Excavators	2	8.00	158	0.38
Sub Transmission - Below Ground	Rollers	1	8.00	80	0.38
Sub Transmission - Below Ground	Rough Terrain Forklifts	1	8.00	100	0.40
Sub Transmission - System Installation	Aerial Lifts	1	8.00	63	0.31
Sub Transmission - System Installation	Cranes	2	8.00	231	0.29
Sub Transmission - System Installation	Excavators	1	8.00	158	0.38

Trips and VMT

Gonzales Microgrid Construction Analysis - Monterey County, 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 - Powerhouse + BESS	2	6.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Solar - Fence Installation	4	10.00	8.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Solar - Site Preparation	6	14.00	10.00	8.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading - Powerhouse + BESS	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Solar - System Installation	17	116.00	14.00	16.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - Powerhouse + BESS	5	16.00	6.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Solar - Underground Collector Lines	4	14.00	4.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation - Bodega Road	3	12.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Solar - Collector Substation	8	14.00	2.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading - Bodega Road	3	4.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving - Bodega Road	5	20.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Electric Distribution - Site Preparation	5	14.00	10.00	8.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Electric Distribution - Above Ground	5	30.00	10.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Arch Coating - Bodega Road	1	14.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Solar - Testing and Restoration	2	16.00	10.00	4.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Gen-Tie - Site Preparation	5	8.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Electric Distribution - Site Clean Up	6	14.00	2.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Gen-Tie - Above Ground Work	5	26.00	4.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving - Powerhouse + BESS	7	18.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Arch Coating - Powerhouse + BESS	1	4.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Gen-Tie - Interconnection Constr	4	14.00	2.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Arch Coating - Electric Distribution	1	16.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Sub Transmission - Site Preparation	5	8.00	6.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Sub Transmission - Below Ground	5	26.00	4.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Sub Transmission - System Installation	4	16.00	8.00	6.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - Powerhouse + BESS - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.6403	7.8204	4.0274	9.7300e-003		0.2995	0.2995		0.2755	0.2755		942.5842	942.5842	0.3049		950.2055
Total	0.6403	7.8204	4.0274	9.7300e-003	0.5303	0.2995	0.8297	0.0573	0.2755	0.3328		942.5842	942.5842	0.3049		950.2055

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.2 Site Preparation - Powerhouse + BESS - 2021

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	0.0244	0.0190	0.2100	5.2000e-004	0.0493	4.1000e-004	0.0497	0.0131	3.8000e-004	0.0135		51.3018	51.3018	2.0200e-003		51.3523
Total	0.0244	0.0190	0.2100	5.2000e-004	0.0493	4.1000e-004	0.0497	0.0131	3.8000e-004	0.0135		51.3018	51.3018	2.0200e-003		51.3523

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2386	0.0000	0.2386	0.0258	0.0000	0.0258			0.0000			0.0000
Off-Road	0.6403	7.8204	4.0274	9.7300e-003		0.2995	0.2995		0.2755	0.2755	0.0000	942.5842	942.5842	0.3049		950.2055
Total	0.6403	7.8204	4.0274	9.7300e-003	0.2386	0.2995	0.5381	0.0258	0.2755	0.3013	0.0000	942.5842	942.5842	0.3049		950.2055

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.2 Site Preparation - Powerhouse + BESS - 2021

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	0.0244	0.0190	0.2100	5.2000e-004	0.0493	4.1000e-004	0.0497	0.0131	3.8000e-004	0.0135		51.3018	51.3018	2.0200e-003		51.3523
Total	0.0244	0.0190	0.2100	5.2000e-004	0.0493	4.1000e-004	0.0497	0.0131	3.8000e-004	0.0135		51.3018	51.3018	2.0200e-003		51.3523

3.3 Solar - Fence Installation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3497	4.6229	6.4640	9.6500e-003		0.1850	0.1850		0.1702	0.1702		934.3644	934.3644	0.3022		941.9192
Total	0.3497	4.6229	6.4640	9.6500e-003	0.0000	0.1850	0.1850	0.0000	0.1702	0.1702		934.3644	934.3644	0.3022		941.9192

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.3 Solar - Fence Installation - 2021

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	0.0288	0.8980	0.2238	2.2800e-003	1.7723	2.7400e-003	1.7750	0.1869	2.6200e-003	0.1895		240.0684	240.0684	0.0101		240.3219
Worker	0.0407	0.0317	0.3500	8.6000e-004	0.0822	6.9000e-004	0.0828	0.0218	6.3000e-004	0.0224		85.5030	85.5030	3.3700e-003		85.5872
Total	0.0695	0.9298	0.5738	3.1400e-003	1.8544	3.4300e-003	1.8578	0.2087	3.2500e-003	0.2120		325.5714	325.5714	0.0135		325.9091

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3497	4.6229	6.4640	9.6500e-003		0.1850	0.1850		0.1702	0.1702	0.0000	934.3644	934.3644	0.3022		941.9192
Total	0.3497	4.6229	6.4640	9.6500e-003	0.0000	0.1850	0.1850	0.0000	0.1702	0.1702	0.0000	934.3644	934.3644	0.3022		941.9192

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.3 Solar - Fence Installation - 2021

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	0.0288	0.8980	0.2238	2.2800e-003	1.7723	2.7400e-003	1.7750	0.1869	2.6200e-003	0.1895		240.0684	240.0684	0.0101		240.3219
Worker	0.0407	0.0317	0.3500	8.6000e-004	0.0822	6.9000e-004	0.0828	0.0218	6.3000e-004	0.0224		85.5030	85.5030	3.3700e-003		85.5872
Total	0.0695	0.9298	0.5738	3.1400e-003	1.8544	3.4300e-003	1.8578	0.2087	3.2500e-003	0.2120		325.5714	325.5714	0.0135		325.9091

3.4 Solar - Site Preparation - 2021

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					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	2.5186	28.5647	13.5932	0.0301		1.2549	1.2549		1.1545	1.1545		2,919.7983	2,919.7983	0.9443		2,943.4063
Total	2.5186	28.5647	13.5932	0.0301	7.0826	1.2549	8.3375	3.4247	1.1545	4.5792		2,919.7983	2,919.7983	0.9443		2,943.4063

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.4 Solar - Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.1400e-003	0.1083	0.0227	3.2000e-004	0.2423	4.1000e-004	0.2428	0.0254	3.9000e-004	0.0258		34.2498	34.2498	1.2400e-003		34.2807
Vendor	0.0360	1.1226	0.2798	2.8500e-003	2.2153	3.4200e-003	2.2188	0.2336	3.2700e-003	0.2369		300.0855	300.0855	0.0127		300.4024
Worker	0.0570	0.0444	0.4900	1.2000e-003	0.1150	9.6000e-004	0.1160	0.0305	8.9000e-004	0.0314		119.7041	119.7041	4.7200e-003		119.8221
Total	0.0962	1.2753	0.7924	4.3700e-003	2.5727	4.7900e-003	2.5775	0.2895	4.5500e-003	0.2941		454.0395	454.0395	0.0186		454.5052

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					3.1872	0.0000	3.1872	1.5411	0.0000	1.5411			0.0000			0.0000
Off-Road	2.5186	28.5647	13.5932	0.0301		1.2549	1.2549		1.1545	1.1545	0.0000	2,919.7983	2,919.7983	0.9443		2,943.4063
Total	2.5186	28.5647	13.5932	0.0301	3.1872	1.2549	4.4421	1.5411	1.1545	2.6956	0.0000	2,919.7983	2,919.7983	0.9443		2,943.4063

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.4 Solar - Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.1400e-003	0.1083	0.0227	3.2000e-004	0.2423	4.1000e-004	0.2428	0.0254	3.9000e-004	0.0258		34.2498	34.2498	1.2400e-003		34.2807
Vendor	0.0360	1.1226	0.2798	2.8500e-003	2.2153	3.4200e-003	2.2188	0.2336	3.2700e-003	0.2369		300.0855	300.0855	0.0127		300.4024
Worker	0.0570	0.0444	0.4900	1.2000e-003	0.1150	9.6000e-004	0.1160	0.0305	8.9000e-004	0.0314		119.7041	119.7041	4.7200e-003		119.8221
Total	0.0962	1.2753	0.7924	4.3700e-003	2.5727	4.7900e-003	2.5775	0.2895	4.5500e-003	0.2941		454.0395	454.0395	0.0186		454.5052

3.5 Grading - Powerhouse + BESS - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886		1,147.4338	1,147.4338	0.2138		1,152.7797
Total	0.7965	7.2530	7.5691	0.0120	0.7528	0.4073	1.1601	0.4138	0.3886	0.8024		1,147.4338	1,147.4338	0.2138		1,152.7797

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.5 Grading - Powerhouse + BESS - 2021

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	0.0407	0.0317	0.3500	8.6000e-004	0.0822	6.9000e-004	0.0828	0.0218	6.3000e-004	0.0224		85.5030	85.5030	3.3700e-003		85.5872
Total	0.0407	0.0317	0.3500	8.6000e-004	0.0822	6.9000e-004	0.0828	0.0218	6.3000e-004	0.0224		85.5030	85.5030	3.3700e-003		85.5872

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3387	0.0000	0.3387	0.1862	0.0000	0.1862			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886	0.0000	1,147.4338	1,147.4338	0.2138		1,152.7797
Total	0.7965	7.2530	7.5691	0.0120	0.3387	0.4073	0.7461	0.1862	0.3886	0.5748	0.0000	1,147.4338	1,147.4338	0.2138		1,152.7797

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.5 Grading - Powerhouse + BESS - 2021

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	0.0407	0.0317	0.3500	8.6000e-004	0.0822	6.9000e-004	0.0828	0.0218	6.3000e-004	0.0224		85.5030	85.5030	3.3700e-003		85.5872
Total	0.0407	0.0317	0.3500	8.6000e-004	0.0822	6.9000e-004	0.0828	0.0218	6.3000e-004	0.0224		85.5030	85.5030	3.3700e-003		85.5872

3.6 Solar - System Installation - 2021

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	2.9331	31.6705	29.8717	0.0571		1.6384	1.6384		1.5073	1.5073		5,526.1067	5,526.1067	1.7873		5,570.7881
Total	2.9331	31.6705	29.8717	0.0571		1.6384	1.6384		1.5073	1.5073		5,526.1067	5,526.1067	1.7873		5,570.7881

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.6 Solar - System Installation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.9000e-003	0.0657	0.0137	2.0000e-004	0.1469	2.5000e-004	0.1471	0.0154	2.4000e-004	0.0156		20.7575	20.7575	7.5000e-004		20.7762
Vendor	0.0504	1.5716	0.3917	3.9900e-003	3.1015	4.7900e-003	3.1063	0.3271	4.5800e-003	0.3317		420.1197	420.1197	0.0178		420.5634
Worker	0.4725	0.3682	4.0600	9.9700e-003	0.9529	7.9600e-003	0.9609	0.2528	7.3400e-003	0.2601		991.8343	991.8343	0.0391		992.8114
Total	0.5248	2.0054	4.4654	0.0142	4.2012	0.0130	4.2143	0.5952	0.0122	0.6074		1,432.7115	1,432.7115	0.0576		1,434.1510

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	2.9331	31.6705	29.8717	0.0571		1.6384	1.6384		1.5073	1.5073	0.0000	5,526.1067	5,526.1067	1.7873		5,570.7881
Total	2.9331	31.6705	29.8717	0.0571		1.6384	1.6384		1.5073	1.5073	0.0000	5,526.1067	5,526.1067	1.7873		5,570.7881

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.6 Solar - System Installation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.9000e-003	0.0657	0.0137	2.0000e-004	0.1469	2.5000e-004	0.1471	0.0154	2.4000e-004	0.0156		20.7575	20.7575	7.5000e-004		20.7762
Vendor	0.0504	1.5716	0.3917	3.9900e-003	3.1015	4.7900e-003	3.1063	0.3271	4.5800e-003	0.3317		420.1197	420.1197	0.0178		420.5634
Worker	0.4725	0.3682	4.0600	9.9700e-003	0.9529	7.9600e-003	0.9609	0.2528	7.3400e-003	0.2601		991.8343	991.8343	0.0391		992.8114
Total	0.5248	2.0054	4.4654	0.0142	4.2012	0.0130	4.2143	0.5952	0.0122	0.6074		1,432.7115	1,432.7115	0.0576		1,434.1510

3.7 Building Construction - Powerhouse + BESS - 2021

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	0.7282	7.5110	6.6986	0.0106		0.4196	0.4196		0.3860	0.3860		1,027.9908	1,027.9908	0.3325		1,036.3026
Total	0.7282	7.5110	6.6986	0.0106		0.4196	0.4196		0.3860	0.3860		1,027.9908	1,027.9908	0.3325		1,036.3026

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.7 Building Construction - Powerhouse + BESS - 2021

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	0.0216	0.6735	0.1679	1.7100e-003	0.0406	2.0500e-003	0.0426	0.0117	1.9600e-003	0.0137		180.0513	180.0513	7.6100e-003		180.2415
Worker	0.0652	0.0508	0.5600	1.3700e-003	0.1314	1.1000e-003	0.1325	0.0349	1.0100e-003	0.0359		136.8047	136.8047	5.3900e-003		136.9395
Total	0.0868	0.7243	0.7279	3.0800e-003	0.1720	3.1500e-003	0.1752	0.0465	2.9700e-003	0.0495		316.8560	316.8560	0.0130		317.1810

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	0.7282	7.5110	6.6986	0.0106		0.4196	0.4196		0.3860	0.3860	0.0000	1,027.9908	1,027.9908	0.3325		1,036.3026
Total	0.7282	7.5110	6.6986	0.0106		0.4196	0.4196		0.3860	0.3860	0.0000	1,027.9908	1,027.9908	0.3325		1,036.3026

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.7 Building Construction - Powerhouse + BESS - 2021

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	0.0216	0.6735	0.1679	1.7100e-003	0.0406	2.0500e-003	0.0426	0.0117	1.9600e-003	0.0137		180.0513	180.0513	7.6100e-003		180.2415
Worker	0.0652	0.0508	0.5600	1.3700e-003	0.1314	1.1000e-003	0.1325	0.0349	1.0100e-003	0.0359		136.8047	136.8047	5.3900e-003		136.9395
Total	0.0868	0.7243	0.7279	3.0800e-003	0.1720	3.1500e-003	0.1752	0.0465	2.9700e-003	0.0495		316.8560	316.8560	0.0130		317.1810

3.7 Building Construction - Powerhouse + BESS - 2022

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	0.6451	6.6069	6.5932	0.0106		0.3494	0.3494		0.3214	0.3214		1,028.6296	1,028.6296	0.3327		1,036.9466
Total	0.6451	6.6069	6.5932	0.0106		0.3494	0.3494		0.3214	0.3214		1,028.6296	1,028.6296	0.3327		1,036.9466

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.7 Building Construction - Powerhouse + BESS - 2022

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	0.0198	0.6379	0.1518	1.7000e-003	0.0406	1.7800e-003	0.0424	0.0117	1.7100e-003	0.0134		178.5609	178.5609	7.3600e-003		178.7448
Worker	0.0604	0.0455	0.5116	1.3300e-003	0.1314	1.0600e-003	0.1325	0.0349	9.8000e-004	0.0358		131.9889	131.9889	4.8200e-003		132.1095
Total	0.0802	0.6834	0.6634	3.0300e-003	0.1720	2.8400e-003	0.1749	0.0465	2.6900e-003	0.0492		310.5498	310.5498	0.0122		310.8543

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	0.6451	6.6069	6.5932	0.0106		0.3494	0.3494		0.3214	0.3214	0.0000	1,028.6296	1,028.6296	0.3327		1,036.9466
Total	0.6451	6.6069	6.5932	0.0106		0.3494	0.3494		0.3214	0.3214	0.0000	1,028.6296	1,028.6296	0.3327		1,036.9466

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.7 Building Construction - Powerhouse + BESS - 2022

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	0.0198	0.6379	0.1518	1.7000e-003	0.0406	1.7800e-003	0.0424	0.0117	1.7100e-003	0.0134		178.5609	178.5609	7.3600e-003		178.7448
Worker	0.0604	0.0455	0.5116	1.3300e-003	0.1314	1.0600e-003	0.1325	0.0349	9.8000e-004	0.0358		131.9889	131.9889	4.8200e-003		132.1095
Total	0.0802	0.6834	0.6634	3.0300e-003	0.1720	2.8400e-003	0.1749	0.0465	2.6900e-003	0.0492		310.5498	310.5498	0.0122		310.8543

3.8 Solar - Underground Collector Lines - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.2260	12.0636	12.8168	0.0194		0.6511	0.6511		0.5990	0.5990		1,880.1347	1,880.1347	0.6081		1,895.3366
Total	1.2260	12.0636	12.8168	0.0194	0.5303	0.6511	1.1813	0.0573	0.5990	0.6562		1,880.1347	1,880.1347	0.6081		1,895.3366

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.8 Solar - Underground Collector Lines - 2021

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	4.5000e-004	0.0155	3.2400e-003	5.0000e-005	0.0346	6.0000e-005	0.0347	3.6300e-003	6.0000e-005	3.6800e-003		4.8928	4.8928	1.8000e-004		4.8973
Vendor	0.0144	0.4490	0.1119	1.1400e-003	0.8861	1.3700e-003	0.8875	0.0935	1.3100e-003	0.0948		120.0342	120.0342	5.0700e-003		120.1610
Worker	0.0570	0.0444	0.4900	1.2000e-003	0.1150	9.6000e-004	0.1160	0.0305	8.9000e-004	0.0314		119.7041	119.7041	4.7200e-003		119.8221
Total	0.0719	0.5089	0.6052	2.3900e-003	1.0358	2.3900e-003	1.0382	0.1276	2.2600e-003	0.1298		244.6312	244.6312	9.9700e-003		244.8803

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2386	0.0000	0.2386	0.0258	0.0000	0.0258			0.0000			0.0000
Off-Road	1.2260	12.0636	12.8168	0.0194		0.6511	0.6511		0.5990	0.5990	0.0000	1,880.1347	1,880.1347	0.6081		1,895.3365
Total	1.2260	12.0636	12.8168	0.0194	0.2386	0.6511	0.8897	0.0258	0.5990	0.6247	0.0000	1,880.1347	1,880.1347	0.6081		1,895.3365

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.8 Solar - Underground Collector Lines - 2021

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	4.5000e-004	0.0155	3.2400e-003	5.0000e-005	0.0346	6.0000e-005	0.0347	3.6300e-003	6.0000e-005	3.6800e-003		4.8928	4.8928	1.8000e-004		4.8973
Vendor	0.0144	0.4490	0.1119	1.1400e-003	0.8861	1.3700e-003	0.8875	0.0935	1.3100e-003	0.0948		120.0342	120.0342	5.0700e-003		120.1610
Worker	0.0570	0.0444	0.4900	1.2000e-003	0.1150	9.6000e-004	0.1160	0.0305	8.9000e-004	0.0314		119.7041	119.7041	4.7200e-003		119.8221
Total	0.0719	0.5089	0.6052	2.3900e-003	1.0358	2.3900e-003	1.0382	0.1276	2.2600e-003	0.1298		244.6312	244.6312	9.9700e-003		244.8803

3.9 Site Preparation - Bodega Road - 2021

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					5.2693	0.0000	5.2693	2.8965	0.0000	2.8965			0.0000			0.0000
Off-Road	1.5558	17.4203	7.5605	0.0172		0.7654	0.7654		0.7041	0.7041		1,666.5174	1,666.5174	0.5390		1,679.9920
Total	1.5558	17.4203	7.5605	0.0172	5.2693	0.7654	6.0347	2.8965	0.7041	3.6006		1,666.5174	1,666.5174	0.5390		1,679.9920

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.9 Site Preparation - Bodega Road - 2021

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	0.0489	0.0381	0.4200	1.0300e-003	0.0986	8.2000e-004	0.0994	0.0262	7.6000e-004	0.0269		102.6036	102.6036	4.0400e-003		102.7046
Total	0.0489	0.0381	0.4200	1.0300e-003	0.0986	8.2000e-004	0.0994	0.0262	7.6000e-004	0.0269		102.6036	102.6036	4.0400e-003		102.7046

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					2.3712	0.0000	2.3712	1.3034	0.0000	1.3034			0.0000			0.0000
Off-Road	1.5558	17.4203	7.5605	0.0172		0.7654	0.7654		0.7041	0.7041	0.0000	1,666.5174	1,666.5174	0.5390		1,679.9920
Total	1.5558	17.4203	7.5605	0.0172	2.3712	0.7654	3.1366	1.3034	0.7041	2.0075	0.0000	1,666.5174	1,666.5174	0.5390		1,679.9920

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.9 Site Preparation - Bodega Road - 2021

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	0.0489	0.0381	0.4200	1.0300e-003	0.0986	8.2000e-004	0.0994	0.0262	7.6000e-004	0.0269		102.6036	102.6036	4.0400e-003		102.7046
Total	0.0489	0.0381	0.4200	1.0300e-003	0.0986	8.2000e-004	0.0994	0.0262	7.6000e-004	0.0269		102.6036	102.6036	4.0400e-003		102.7046

3.10 Solar - Collector Substation - 2021

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	1.6472	15.9261	15.7989	0.0276		0.7639	0.7639		0.7292	0.7292		2,629.2149	2,629.2149	0.5650		2,643.3392
Total	1.6472	15.9261	15.7989	0.0276		0.7639	0.7639		0.7292	0.7292		2,629.2149	2,629.2149	0.5650		2,643.3392

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.10 Solar - Collector Substation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.6000e-004	0.0123	2.5700e-003	4.0000e-005	0.0275	5.0000e-005	0.0276	2.8800e-003	4.0000e-005	2.9300e-003		3.8920	3.8920	1.4000e-004		3.8955
Vendor	7.2000e-003	0.2245	0.0560	5.7000e-004	0.4431	6.8000e-004	0.4438	0.0467	6.5000e-004	0.0474		60.0171	60.0171	2.5400e-003		60.0805
Worker	0.0570	0.0444	0.4900	1.2000e-003	0.1150	9.6000e-004	0.1160	0.0305	8.9000e-004	0.0314		119.7041	119.7041	4.7200e-003		119.8221
Total	0.0646	0.2813	0.5485	1.8100e-003	0.5856	1.6900e-003	0.5873	0.0801	1.5800e-003	0.0817		183.6133	183.6133	7.4000e-003		183.7981

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	1.6472	15.9261	15.7989	0.0276		0.7639	0.7639		0.7292	0.7292	0.0000	2,629.2149	2,629.2149	0.5650		2,643.3392
Total	1.6472	15.9261	15.7989	0.0276		0.7639	0.7639		0.7292	0.7292	0.0000	2,629.2149	2,629.2149	0.5650		2,643.3392

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.10 Solar - Collector Substation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.6000e-004	0.0123	2.5700e-003	4.0000e-005	0.0275	5.0000e-005	0.0276	2.8800e-003	4.0000e-005	2.9300e-003		3.8920	3.8920	1.4000e-004		3.8955
Vendor	7.2000e-003	0.2245	0.0560	5.7000e-004	0.4431	6.8000e-004	0.4438	0.0467	6.5000e-004	0.0474		60.0171	60.0171	2.5400e-003		60.0805
Worker	0.0570	0.0444	0.4900	1.2000e-003	0.1150	9.6000e-004	0.1160	0.0305	8.9000e-004	0.0314		119.7041	119.7041	4.7200e-003		119.8221
Total	0.0646	0.2813	0.5485	1.8100e-003	0.5856	1.6900e-003	0.5873	0.0801	1.5800e-003	0.0817		183.6133	183.6133	7.4000e-003		183.7981

3.11 Grading - Bodega Road - 2021

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					5.3119	0.0000	5.3119	2.5686	0.0000	2.5686			0.0000			0.0000
Off-Road	1.2884	14.3307	6.3314	0.0141		0.6379	0.6379		0.5869	0.5869		1,365.0648	1,365.0648	0.4415		1,376.1020
Total	1.2884	14.3307	6.3314	0.0141	5.3119	0.6379	5.9499	2.5686	0.5869	3.1554		1,365.0648	1,365.0648	0.4415		1,376.1020

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.11 Grading - Bodega Road - 2021

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	0.0163	0.0127	0.1400	3.4000e-004	0.0329	2.7000e-004	0.0331	8.7200e-003	2.5000e-004	8.9700e-003		34.2012	34.2012	1.3500e-003		34.2349
Total	0.0163	0.0127	0.1400	3.4000e-004	0.0329	2.7000e-004	0.0331	8.7200e-003	2.5000e-004	8.9700e-003		34.2012	34.2012	1.3500e-003		34.2349

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					2.3904	0.0000	2.3904	1.1559	0.0000	1.1559			0.0000			0.0000
Off-Road	1.2884	14.3307	6.3314	0.0141		0.6379	0.6379		0.5869	0.5869	0.0000	1,365.0648	1,365.0648	0.4415		1,376.1020
Total	1.2884	14.3307	6.3314	0.0141	2.3904	0.6379	3.0283	1.1559	0.5869	1.7427	0.0000	1,365.0648	1,365.0648	0.4415		1,376.1020

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.11 Grading - Bodega Road - 2021

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	0.0163	0.0127	0.1400	3.4000e-004	0.0329	2.7000e-004	0.0331	8.7200e-003	2.5000e-004	8.9700e-003		34.2012	34.2012	1.3500e-003		34.2349
Total	0.0163	0.0127	0.1400	3.4000e-004	0.0329	2.7000e-004	0.0331	8.7200e-003	2.5000e-004	8.9700e-003		34.2012	34.2012	1.3500e-003		34.2349

3.12 Paving - Bodega Road - 2021

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	0.7739	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830		1,296.8664	1,296.8664	0.4111		1,307.1442
Paving	0.2346					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0085	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830		1,296.8664	1,296.8664	0.4111		1,307.1442

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.12 Paving - Bodega Road - 2021

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	0.0144	0.4490	0.1119	1.1400e-003	0.0271	1.3700e-003	0.0284	7.7900e-003	1.3100e-003	9.1000e-003		120.0342	120.0342	5.0700e-003		120.1610
Worker	0.0815	0.0635	0.7000	1.7200e-003	0.1643	1.3700e-003	0.1657	0.0436	1.2700e-003	0.0448		171.0059	171.0059	6.7400e-003		171.1744
Total	0.0959	0.5125	0.8119	2.8600e-003	0.1914	2.7400e-003	0.1941	0.0514	2.5800e-003	0.0539		291.0401	291.0401	0.0118		291.3353

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	0.7739	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830	0.0000	1,296.8664	1,296.8664	0.4111		1,307.1442
Paving	0.2346					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0085	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830	0.0000	1,296.8664	1,296.8664	0.4111		1,307.1442

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.12 Paving - Bodega Road - 2021

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	0.0144	0.4490	0.1119	1.1400e-003	0.0271	1.3700e-003	0.0284	7.7900e-003	1.3100e-003	9.1000e-003		120.0342	120.0342	5.0700e-003		120.1610
Worker	0.0815	0.0635	0.7000	1.7200e-003	0.1643	1.3700e-003	0.1657	0.0436	1.2700e-003	0.0448		171.0059	171.0059	6.7400e-003		171.1744
Total	0.0959	0.5125	0.8119	2.8600e-003	0.1914	2.7400e-003	0.1941	0.0514	2.5800e-003	0.0539		291.0401	291.0401	0.0118		291.3353

3.13 Electric Distribution - Site Preparation - 2021

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					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	2.3291	26.6405	11.7128	0.0275		1.1373	1.1373		1.0463	1.0463		2,665.7094	2,665.7094	0.8621		2,687.2630
Total	2.3291	26.6405	11.7128	0.0275	7.0826	1.1373	8.2198	3.4247	1.0463	4.4710		2,665.7094	2,665.7094	0.8621		2,687.2630

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.13 Electric Distribution - Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	6.2700e-003	0.2166	0.0453	6.5000e-004	0.0140	8.1000e-004	0.0148	3.8200e-003	7.8000e-004	4.6000e-003		68.4997	68.4997	2.4700e-003		68.5615
Vendor	0.0360	1.1226	0.2798	2.8500e-003	0.0677	3.4200e-003	0.0711	0.0195	3.2700e-003	0.0227		300.0855	300.0855	0.0127		300.4024
Worker	0.0570	0.0444	0.4900	1.2000e-003	0.1150	9.6000e-004	0.1160	0.0305	8.9000e-004	0.0314		119.7041	119.7041	4.7200e-003		119.8221
Total	0.0993	1.3836	0.8151	4.7000e-003	0.1966	5.1900e-003	0.2018	0.0538	4.9400e-003	0.0587		488.2893	488.2893	0.0199		488.7860

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					3.1872	0.0000	3.1872	1.5411	0.0000	1.5411			0.0000			0.0000
Off-Road	2.3291	26.6405	11.7128	0.0275		1.1373	1.1373		1.0463	1.0463	0.0000	2,665.7094	2,665.7094	0.8621		2,687.2630
Total	2.3291	26.6405	11.7128	0.0275	3.1872	1.1373	4.3244	1.5411	1.0463	2.5874	0.0000	2,665.7094	2,665.7094	0.8621		2,687.2630

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.13 Electric Distribution - Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	6.2700e-003	0.2166	0.0453	6.5000e-004	0.0140	8.1000e-004	0.0148	3.8200e-003	7.8000e-004	4.6000e-003		68.4997	68.4997	2.4700e-003		68.5615
Vendor	0.0360	1.1226	0.2798	2.8500e-003	0.0677	3.4200e-003	0.0711	0.0195	3.2700e-003	0.0227		300.0855	300.0855	0.0127		300.4024
Worker	0.0570	0.0444	0.4900	1.2000e-003	0.1150	9.6000e-004	0.1160	0.0305	8.9000e-004	0.0314		119.7041	119.7041	4.7200e-003		119.8221
Total	0.0993	1.3836	0.8151	4.7000e-003	0.1966	5.1900e-003	0.2018	0.0538	4.9400e-003	0.0587		488.2893	488.2893	0.0199		488.7860

3.14 Electric Distribution - Above Ground - 2021

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	1.3492	13.6759	15.1109	0.0229		0.7135	0.7135		0.6565	0.6565		2,213.9040	2,213.9040	0.7160		2,231.8045
Total	1.3492	13.6759	15.1109	0.0229		0.7135	0.7135		0.6565	0.6565		2,213.9040	2,213.9040	0.7160		2,231.8045

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.14 Electric Distribution - Above Ground - 2021

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	2.8000e-004	9.6700e-003	2.0200e-003	3.0000e-005	6.2000e-004	4.0000e-005	6.6000e-004	1.7000e-004	3.0000e-005	2.1000e-004		3.0580	3.0580	1.1000e-004		3.0608
Vendor	0.0360	1.1226	0.2798	2.8500e-003	0.0677	3.4200e-003	0.0711	0.0195	3.2700e-003	0.0227		300.0855	300.0855	0.0127		300.4024
Worker	0.1222	0.0952	1.0500	2.5800e-003	0.2464	2.0600e-003	0.2485	0.0654	1.9000e-003	0.0673		256.5089	256.5089	0.0101		256.7616
Total	0.1585	1.2274	1.3318	5.4600e-003	0.3147	5.5200e-003	0.3202	0.0850	5.2000e-003	0.0902		559.6524	559.6524	0.0229		560.2248

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	1.3492	13.6759	15.1109	0.0229		0.7135	0.7135		0.6565	0.6565	0.0000	2,213.9040	2,213.9040	0.7160		2,231.8045
Total	1.3492	13.6759	15.1109	0.0229		0.7135	0.7135		0.6565	0.6565	0.0000	2,213.9040	2,213.9040	0.7160		2,231.8045

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.14 Electric Distribution - Above Ground - 2021

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	2.8000e-004	9.6700e-003	2.0200e-003	3.0000e-005	6.2000e-004	4.0000e-005	6.6000e-004	1.7000e-004	3.0000e-005	2.1000e-004		3.0580	3.0580	1.1000e-004		3.0608
Vendor	0.0360	1.1226	0.2798	2.8500e-003	0.0677	3.4200e-003	0.0711	0.0195	3.2700e-003	0.0227		300.0855	300.0855	0.0127		300.4024
Worker	0.1222	0.0952	1.0500	2.5800e-003	0.2464	2.0600e-003	0.2485	0.0654	1.9000e-003	0.0673		256.5089	256.5089	0.0101		256.7616
Total	0.1585	1.2274	1.3318	5.4600e-003	0.3147	5.5200e-003	0.3202	0.0850	5.2000e-003	0.0902		559.6524	559.6524	0.0229		560.2248

3.15 Arch Coating - Bodega Road - 2021

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					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.15 Arch Coating - Bodega Road - 2021

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	7.2000e-003	0.2245	0.0560	5.7000e-004	0.0135	6.8000e-004	0.0142	3.8900e-003	6.5000e-004	4.5500e-003		60.0171	60.0171	2.5400e-003		60.0805
Worker	0.0570	0.0444	0.4900	1.2000e-003	0.1150	9.6000e-004	0.1160	0.0305	8.9000e-004	0.0314		119.7041	119.7041	4.7200e-003		119.8221
Total	0.0642	0.2690	0.5460	1.7700e-003	0.1285	1.6400e-003	0.1302	0.0344	1.5400e-003	0.0359		179.7212	179.7212	7.2600e-003		179.9025

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					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.15 Arch Coating - Bodega Road - 2021

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	7.2000e-003	0.2245	0.0560	5.7000e-004	0.0135	6.8000e-004	0.0142	3.8900e-003	6.5000e-004	4.5500e-003		60.0171	60.0171	2.5400e-003		60.0805
Worker	0.0570	0.0444	0.4900	1.2000e-003	0.1150	9.6000e-004	0.1160	0.0305	8.9000e-004	0.0314		119.7041	119.7041	4.7200e-003		119.8221
Total	0.0642	0.2690	0.5460	1.7700e-003	0.1285	1.6400e-003	0.1302	0.0344	1.5400e-003	0.0359		179.7212	179.7212	7.2600e-003		179.9025

3.16 Solar - Testing and Restoration - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.5285	6.9281	3.1571	8.6900e-003		0.2285	0.2285		0.2102	0.2102		841.8825	841.8825	0.2723		848.6895
Total	0.5285	6.9281	3.1571	8.6900e-003	0.5303	0.2285	0.7588	0.0573	0.2102	0.2675		841.8825	841.8825	0.2723		848.6895

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.16 Solar - Testing and Restoration - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.3600e-003	0.0471	9.8500e-003	1.4000e-004	0.1054	1.8000e-004	0.1055	0.0110	1.7000e-004	0.0112		14.8912	14.8912	5.4000e-004		14.9047
Vendor	0.0360	1.1226	0.2798	2.8500e-003	2.2153	3.4200e-003	2.2188	0.2336	3.2700e-003	0.2369		300.0855	300.0855	0.0127		300.4024
Worker	0.0652	0.0508	0.5600	1.3700e-003	0.1314	1.1000e-003	0.1325	0.0349	1.0100e-003	0.0359		136.8047	136.8047	5.3900e-003		136.9395
Total	0.1025	1.2204	0.8496	4.3600e-003	2.4521	4.7000e-003	2.4568	0.2795	4.4500e-003	0.2840		451.7815	451.7815	0.0186		452.2466

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2386	0.0000	0.2386	0.0258	0.0000	0.0258			0.0000			0.0000
Off-Road	0.5285	6.9281	3.1571	8.6900e-003		0.2285	0.2285		0.2102	0.2102	0.0000	841.8825	841.8825	0.2723		848.6895
Total	0.5285	6.9281	3.1571	8.6900e-003	0.2386	0.2285	0.4671	0.0258	0.2102	0.2360	0.0000	841.8825	841.8825	0.2723		848.6895

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.16 Solar - Testing and Restoration - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.3600e-003	0.0471	9.8500e-003	1.4000e-004	0.1054	1.8000e-004	0.1055	0.0110	1.7000e-004	0.0112		14.8912	14.8912	5.4000e-004		14.9047
Vendor	0.0360	1.1226	0.2798	2.8500e-003	2.2153	3.4200e-003	2.2188	0.2336	3.2700e-003	0.2369		300.0855	300.0855	0.0127		300.4024
Worker	0.0652	0.0508	0.5600	1.3700e-003	0.1314	1.1000e-003	0.1325	0.0349	1.0100e-003	0.0359		136.8047	136.8047	5.3900e-003		136.9395
Total	0.1025	1.2204	0.8496	4.3600e-003	2.4521	4.7000e-003	2.4568	0.2795	4.4500e-003	0.2840		451.7815	451.7815	0.0186		452.2466

3.17 Gen-Tie - Site Preparation - 2021

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					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	2.3291	26.6405	11.7128	0.0275		1.1373	1.1373		1.0463	1.0463		2,665.7094	2,665.7094	0.8621		2,687.2630
Total	2.3291	26.6405	11.7128	0.0275	7.0826	1.1373	8.2198	3.4247	1.0463	4.4710		2,665.7094	2,665.7094	0.8621		2,687.2630

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.17 Gen-Tie - Site Preparation - 2021

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	7.2000e-003	0.2245	0.0560	5.7000e-004	0.0135	6.8000e-004	0.0142	3.8900e-003	6.5000e-004	4.5500e-003		60.0171	60.0171	2.5400e-003		60.0805
Worker	0.0326	0.0254	0.2800	6.9000e-004	0.0657	5.5000e-004	0.0663	0.0174	5.1000e-004	0.0179		68.4024	68.4024	2.7000e-003		68.4698
Total	0.0398	0.2499	0.3360	1.2600e-003	0.0793	1.2300e-003	0.0805	0.0213	1.1600e-003	0.0225		128.4195	128.4195	5.2400e-003		128.5502

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					3.1872	0.0000	3.1872	1.5411	0.0000	1.5411			0.0000			0.0000
Off-Road	2.3291	26.6405	11.7128	0.0275		1.1373	1.1373		1.0463	1.0463	0.0000	2,665.7094	2,665.7094	0.8621		2,687.2630
Total	2.3291	26.6405	11.7128	0.0275	3.1872	1.1373	4.3244	1.5411	1.0463	2.5874	0.0000	2,665.7094	2,665.7094	0.8621		2,687.2630

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.17 Gen-Tie - Site Preparation - 2021

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	7.2000e-003	0.2245	0.0560	5.7000e-004	0.0135	6.8000e-004	0.0142	3.8900e-003	6.5000e-004	4.5500e-003		60.0171	60.0171	2.5400e-003		60.0805
Worker	0.0326	0.0254	0.2800	6.9000e-004	0.0657	5.5000e-004	0.0663	0.0174	5.1000e-004	0.0179		68.4024	68.4024	2.7000e-003		68.4698
Total	0.0398	0.2499	0.3360	1.2600e-003	0.0793	1.2300e-003	0.0805	0.0213	1.1600e-003	0.0225		128.4195	128.4195	5.2400e-003		128.5502

3.17 Gen-Tie - Site Preparation - 2022

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					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.9981	22.7104	11.1238	0.0275		0.9414	0.9414		0.8661	0.8661		2,664.9360	2,664.9360	0.8619		2,686.4834
Total	1.9981	22.7104	11.1238	0.0275	7.0826	0.9414	8.0240	3.4247	0.8661	4.2908		2,664.9360	2,664.9360	0.8619		2,686.4834

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.17 Gen-Tie - Site Preparation - 2022

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	6.5900e-003	0.2126	0.0506	5.7000e-004	0.0135	5.9000e-004	0.0141	3.8900e-003	5.7000e-004	4.4600e-003		59.5203	59.5203	2.4500e-003		59.5816
Worker	0.0302	0.0228	0.2558	6.6000e-004	0.0657	5.3000e-004	0.0663	0.0174	4.9000e-004	0.0179		65.9945	65.9945	2.4100e-003		66.0548
Total	0.0368	0.2354	0.3064	1.2300e-003	0.0793	1.1200e-003	0.0804	0.0213	1.0600e-003	0.0224		125.5148	125.5148	4.8600e-003		125.6364

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					3.1872	0.0000	3.1872	1.5411	0.0000	1.5411			0.0000			0.0000
Off-Road	1.9981	22.7104	11.1238	0.0275		0.9414	0.9414		0.8661	0.8661	0.0000	2,664.9360	2,664.9360	0.8619		2,686.4834
Total	1.9981	22.7104	11.1238	0.0275	3.1872	0.9414	4.1285	1.5411	0.8661	2.4072	0.0000	2,664.9360	2,664.9360	0.8619		2,686.4834

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.17 Gen-Tie - Site Preparation - 2022

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	6.5900e-003	0.2126	0.0506	5.7000e-004	0.0135	5.9000e-004	0.0141	3.8900e-003	5.7000e-004	4.4600e-003		59.5203	59.5203	2.4500e-003		59.5816
Worker	0.0302	0.0228	0.2558	6.6000e-004	0.0657	5.3000e-004	0.0663	0.0174	4.9000e-004	0.0179		65.9945	65.9945	2.4100e-003		66.0548
Total	0.0368	0.2354	0.3064	1.2300e-003	0.0793	1.1200e-003	0.0804	0.0213	1.0600e-003	0.0224		125.5148	125.5148	4.8600e-003		125.6364

3.18 Electric Distribution - Site Clean Up - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.8884	8.9699	11.7314	0.0179		0.4662	0.4662		0.4289	0.4289		1,729.3552	1,729.3552	0.5593		1,743.3379
Total	0.8884	8.9699	11.7314	0.0179	0.0000	0.4662	0.4662	0.0000	0.4289	0.4289		1,729.3552	1,729.3552	0.5593		1,743.3379

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.18 Electric Distribution - Site Clean Up - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.4600e-003	0.0496	0.0108	1.6000e-004	3.4900e-003	1.7000e-004	3.6600e-003	9.6000e-004	1.7000e-004	1.1200e-003		16.9180	16.9180	6.1000e-004		16.9332
Vendor	6.5900e-003	0.2126	0.0506	5.7000e-004	0.0135	5.9000e-004	0.0141	3.8900e-003	5.7000e-004	4.4600e-003		59.5203	59.5203	2.4500e-003		59.5816
Worker	0.0529	0.0398	0.4477	1.1600e-003	0.1150	9.3000e-004	0.1159	0.0305	8.5000e-004	0.0314		115.4903	115.4903	4.2200e-003		115.5958
Total	0.0609	0.3020	0.5091	1.8900e-003	0.1320	1.6900e-003	0.1337	0.0354	1.5900e-003	0.0369		191.9286	191.9286	7.2800e-003		192.1106

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.8884	8.9699	11.7314	0.0179		0.4662	0.4662		0.4289	0.4289	0.0000	1,729.3552	1,729.3552	0.5593		1,743.3379
Total	0.8884	8.9699	11.7314	0.0179	0.0000	0.4662	0.4662	0.0000	0.4289	0.4289	0.0000	1,729.3552	1,729.3552	0.5593		1,743.3379

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.18 Electric Distribution - Site Clean Up - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.4600e-003	0.0496	0.0108	1.6000e-004	3.4900e-003	1.7000e-004	3.6600e-003	9.6000e-004	1.7000e-004	1.1200e-003		16.9180	16.9180	6.1000e-004		16.9332
Vendor	6.5900e-003	0.2126	0.0506	5.7000e-004	0.0135	5.9000e-004	0.0141	3.8900e-003	5.7000e-004	4.4600e-003		59.5203	59.5203	2.4500e-003		59.5816
Worker	0.0529	0.0398	0.4477	1.1600e-003	0.1150	9.3000e-004	0.1159	0.0305	8.5000e-004	0.0314		115.4903	115.4903	4.2200e-003		115.5958
Total	0.0609	0.3020	0.5091	1.8900e-003	0.1320	1.6900e-003	0.1337	0.0354	1.5900e-003	0.0369		191.9286	191.9286	7.2800e-003		192.1106

3.19 Gen-Tie - Above Ground Work - 2022

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	1.1994	11.8387	14.9907	0.0229		0.6065	0.6065		0.5580	0.5580		2,213.7450	2,213.7450	0.7160		2,231.6443
Total	1.1994	11.8387	14.9907	0.0229		0.6065	0.6065		0.5580	0.5580		2,213.7450	2,213.7450	0.7160		2,231.6443

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.19 Gen-Tie - Above Ground Work - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.4000e-004	0.0184	4.0000e-003	6.0000e-005	1.2900e-003	6.0000e-005	1.3600e-003	3.5000e-004	6.0000e-005	4.2000e-004		6.2659	6.2659	2.3000e-004		6.2715
Vendor	0.0132	0.4253	0.1012	1.1300e-003	0.0271	1.1900e-003	0.0283	7.7900e-003	1.1400e-003	8.9300e-003		119.0406	119.0406	4.9000e-003		119.1632
Worker	0.0982	0.0740	0.8314	2.1500e-003	0.2136	1.7200e-003	0.2153	0.0567	1.5800e-003	0.0582		214.4820	214.4820	7.8400e-003		214.6779
Total	0.1119	0.5176	0.9366	3.3400e-003	0.2419	2.9700e-003	0.2449	0.0648	2.7800e-003	0.0676		339.7885	339.7885	0.0130		340.1127

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	1.1994	11.8387	14.9907	0.0229		0.6065	0.6065		0.5580	0.5580	0.0000	2,213.7450	2,213.7450	0.7160		2,231.6443
Total	1.1994	11.8387	14.9907	0.0229		0.6065	0.6065		0.5580	0.5580	0.0000	2,213.7450	2,213.7450	0.7160		2,231.6443

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.19 Gen-Tie - Above Ground Work - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.4000e-004	0.0184	4.0000e-003	6.0000e-005	1.2900e-003	6.0000e-005	1.3600e-003	3.5000e-004	6.0000e-005	4.2000e-004		6.2659	6.2659	2.3000e-004		6.2715
Vendor	0.0132	0.4253	0.1012	1.1300e-003	0.0271	1.1900e-003	0.0283	7.7900e-003	1.1400e-003	8.9300e-003		119.0406	119.0406	4.9000e-003		119.1632
Worker	0.0982	0.0740	0.8314	2.1500e-003	0.2136	1.7200e-003	0.2153	0.0567	1.5800e-003	0.0582		214.4820	214.4820	7.8400e-003		214.6779
Total	0.1119	0.5176	0.9366	3.3400e-003	0.2419	2.9700e-003	0.2449	0.0648	2.7800e-003	0.0676		339.7885	339.7885	0.0130		340.1127

3.20 Paving - Powerhouse + BESS - 2022

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	0.6469	5.9174	7.0348	0.0113		0.2961	0.2961		0.2758	0.2758		1,035.8246	1,035.8246	0.3017		1,043.3677
Paving	0.8602					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.5072	5.9174	7.0348	0.0113		0.2961	0.2961		0.2758	0.2758		1,035.8246	1,035.8246	0.3017		1,043.3677

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.20 Paving - Powerhouse + BESS - 2022

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	0.0132	0.4253	0.1012	1.1300e-003	0.0271	1.1900e-003	0.0283	7.7900e-003	1.1400e-003	8.9300e-003		119.0406	119.0406	4.9000e-003		119.1632
Worker	0.0680	0.0512	0.5756	1.4900e-003	0.1479	1.1900e-003	0.1491	0.0392	1.1000e-003	0.0403		148.4875	148.4875	5.4300e-003		148.6232
Total	0.0812	0.4765	0.6768	2.6200e-003	0.1749	2.3800e-003	0.1773	0.0470	2.2400e-003	0.0493		267.5281	267.5281	0.0103		267.7864

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	0.6469	5.9174	7.0348	0.0113		0.2961	0.2961		0.2758	0.2758	0.0000	1,035.8246	1,035.8246	0.3017		1,043.3677
Paving	0.8602					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.5072	5.9174	7.0348	0.0113		0.2961	0.2961		0.2758	0.2758	0.0000	1,035.8246	1,035.8246	0.3017		1,043.3677

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.20 Paving - Powerhouse + BESS - 2022

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	0.0132	0.4253	0.1012	1.1300e-003	0.0271	1.1900e-003	0.0283	7.7900e-003	1.1400e-003	8.9300e-003		119.0406	119.0406	4.9000e-003		119.1632
Worker	0.0680	0.0512	0.5756	1.4900e-003	0.1479	1.1900e-003	0.1491	0.0392	1.1000e-003	0.0403		148.4875	148.4875	5.4300e-003		148.6232
Total	0.0812	0.4765	0.6768	2.6200e-003	0.1749	2.3800e-003	0.1773	0.0470	2.2400e-003	0.0493		267.5281	267.5281	0.0103		267.7864

3.21 Arch Coating - Powerhouse + BESS - 2022

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					
Archit. Coating	36.6397					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	36.8442	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.21 Arch Coating - Powerhouse + BESS - 2022

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	6.5900e-003	0.2126	0.0506	5.7000e-004	0.0135	5.9000e-004	0.0141	3.8900e-003	5.7000e-004	4.4600e-003		59.5203	59.5203	2.4500e-003		59.5816
Worker	0.0151	0.0114	0.1279	3.3000e-004	0.0329	2.6000e-004	0.0331	8.7200e-003	2.4000e-004	8.9600e-003		32.9972	32.9972	1.2100e-003		33.0274
Total	0.0217	0.2240	0.1785	9.0000e-004	0.0464	8.5000e-004	0.0473	0.0126	8.1000e-004	0.0134		92.5175	92.5175	3.6600e-003		92.6090

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					
Archit. Coating	36.6397					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	36.8442	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.21 Arch Coating - Powerhouse + BESS - 2022

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	6.5900e-003	0.2126	0.0506	5.7000e-004	0.0135	5.9000e-004	0.0141	3.8900e-003	5.7000e-004	4.4600e-003		59.5203	59.5203	2.4500e-003		59.5816
Worker	0.0151	0.0114	0.1279	3.3000e-004	0.0329	2.6000e-004	0.0331	8.7200e-003	2.4000e-004	8.9600e-003		32.9972	32.9972	1.2100e-003		33.0274
Total	0.0217	0.2240	0.1785	9.0000e-004	0.0464	8.5000e-004	0.0473	0.0126	8.1000e-004	0.0134		92.5175	92.5175	3.6600e-003		92.6090

3.22 Gen-Tie - Interconnection Construction - 2022

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	0.9845	10.7058	8.1338	0.0184		0.4438	0.4438		0.4083	0.4083		1,780.2958	1,780.2958	0.5758		1,794.6904
Total	0.9845	10.7058	8.1338	0.0184		0.4438	0.4438		0.4083	0.4083		1,780.2958	1,780.2958	0.5758		1,794.6904

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.22 Gen-Tie - Interconnection Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	6.6000e-004	0.0225	4.9000e-003	7.0000e-005	1.5900e-003	8.0000e-005	1.6700e-003	4.3000e-004	8.0000e-005	5.1000e-004		7.6900	7.6900	2.8000e-004		7.6969
Vendor	6.5900e-003	0.2126	0.0506	5.7000e-004	0.0135	5.9000e-004	0.0141	3.8900e-003	5.7000e-004	4.4600e-003		59.5203	59.5203	2.4500e-003		59.5816
Worker	0.0529	0.0398	0.4477	1.1600e-003	0.1150	9.3000e-004	0.1159	0.0305	8.5000e-004	0.0314		115.4903	115.4903	4.2200e-003		115.5958
Total	0.0601	0.2750	0.5032	1.8000e-003	0.1301	1.6000e-003	0.1317	0.0348	1.5000e-003	0.0363		182.7006	182.7006	6.9500e-003		182.8743

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	0.9845	10.7058	8.1338	0.0184		0.4438	0.4438		0.4083	0.4083	0.0000	1,780.2958	1,780.2958	0.5758		1,794.6904
Total	0.9845	10.7058	8.1338	0.0184		0.4438	0.4438		0.4083	0.4083	0.0000	1,780.2958	1,780.2958	0.5758		1,794.6904

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.22 Gen-Tie - Interconnection Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	6.6000e-004	0.0225	4.9000e-003	7.0000e-005	1.5900e-003	8.0000e-005	1.6700e-003	4.3000e-004	8.0000e-005	5.1000e-004		7.6900	7.6900	2.8000e-004		7.6969
Vendor	6.5900e-003	0.2126	0.0506	5.7000e-004	0.0135	5.9000e-004	0.0141	3.8900e-003	5.7000e-004	4.4600e-003		59.5203	59.5203	2.4500e-003		59.5816
Worker	0.0529	0.0398	0.4477	1.1600e-003	0.1150	9.3000e-004	0.1159	0.0305	8.5000e-004	0.0314		115.4903	115.4903	4.2200e-003		115.5958
Total	0.0601	0.2750	0.5032	1.8000e-003	0.1301	1.6000e-003	0.1317	0.0348	1.5000e-003	0.0363		182.7006	182.7006	6.9500e-003		182.8743

3.23 Arch Coating - Electric Distribution - 2022

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					
Archit. Coating	0.8343					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	1.0388	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.23 Arch Coating - Electric Distribution - 2022

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	0.0604	0.0455	0.5116	1.3300e-003	0.1314	1.0600e-003	0.1325	0.0349	9.8000e-004	0.0358		131.9889	131.9889	4.8200e-003		132.1095
Total	0.0604	0.0455	0.5116	1.3300e-003	0.1314	1.0600e-003	0.1325	0.0349	9.8000e-004	0.0358		131.9889	131.9889	4.8200e-003		132.1095

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					
Archit. Coating	0.8343					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	1.0388	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.23 Arch Coating - Electric Distribution - 2022

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	0.0604	0.0455	0.5116	1.3300e-003	0.1314	1.0600e-003	0.1325	0.0349	9.8000e-004	0.0358		131.9889	131.9889	4.8200e-003		132.1095
Total	0.0604	0.0455	0.5116	1.3300e-003	0.1314	1.0600e-003	0.1325	0.0349	9.8000e-004	0.0358		131.9889	131.9889	4.8200e-003		132.1095

3.24 Sub Transmission - Site Preparation - 2022

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					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.9981	22.7104	11.1238	0.0275		0.9414	0.9414		0.8661	0.8661		2,664.9360	2,664.9360	0.8619		2,686.4834
Total	1.9981	22.7104	11.1238	0.0275	7.0826	0.9414	8.0240	3.4247	0.8661	4.2908		2,664.9360	2,664.9360	0.8619		2,686.4834

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.24 Sub Transmission - Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.4600e-003	0.0496	0.0108	1.6000e-004	3.4900e-003	1.7000e-004	3.6600e-003	9.6000e-004	1.7000e-004	1.1200e-003		16.9180	16.9180	6.1000e-004		16.9332
Vendor	0.0198	0.6379	0.1518	1.7000e-003	0.0406	1.7800e-003	0.0424	0.0117	1.7100e-003	0.0134		178.5609	178.5609	7.3600e-003		178.7448
Worker	0.0302	0.0228	0.2558	6.6000e-004	0.0657	5.3000e-004	0.0663	0.0174	4.9000e-004	0.0179		65.9945	65.9945	2.4100e-003		66.0548
Total	0.0515	0.7103	0.4184	2.5200e-003	0.1098	2.4800e-003	0.1123	0.0301	2.3700e-003	0.0324		261.4734	261.4734	0.0104		261.7327

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					3.1872	0.0000	3.1872	1.5411	0.0000	1.5411			0.0000			0.0000
Off-Road	1.9981	22.7104	11.1238	0.0275		0.9414	0.9414		0.8661	0.8661	0.0000	2,664.9360	2,664.9360	0.8619		2,686.4834
Total	1.9981	22.7104	11.1238	0.0275	3.1872	0.9414	4.1285	1.5411	0.8661	2.4072	0.0000	2,664.9360	2,664.9360	0.8619		2,686.4834

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.24 Sub Transmission - Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.4600e-003	0.0496	0.0108	1.6000e-004	3.4900e-003	1.7000e-004	3.6600e-003	9.6000e-004	1.7000e-004	1.1200e-003		16.9180	16.9180	6.1000e-004		16.9332
Vendor	0.0198	0.6379	0.1518	1.7000e-003	0.0406	1.7800e-003	0.0424	0.0117	1.7100e-003	0.0134		178.5609	178.5609	7.3600e-003		178.7448
Worker	0.0302	0.0228	0.2558	6.6000e-004	0.0657	5.3000e-004	0.0663	0.0174	4.9000e-004	0.0179		65.9945	65.9945	2.4100e-003		66.0548
Total	0.0515	0.7103	0.4184	2.5200e-003	0.1098	2.4800e-003	0.1123	0.0301	2.3700e-003	0.0324		261.4734	261.4734	0.0104		261.7327

3.25 Sub Transmission - Below Ground - 2022

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	1.1994	11.8387	14.9907	0.0229		0.6065	0.6065		0.5580	0.5580		2,213.7450	2,213.7450	0.7160		2,231.6443
Total	1.1994	11.8387	14.9907	0.0229		0.6065	0.6065		0.5580	0.5580		2,213.7450	2,213.7450	0.7160		2,231.6443

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.25 Sub Transmission - Below Ground - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.8000e-004	0.0127	2.7700e-003	4.0000e-005	8.9000e-004	4.0000e-005	9.4000e-004	2.5000e-004	4.0000e-005	2.9000e-004		4.3379	4.3379	1.6000e-004		4.3418
Vendor	0.0132	0.4253	0.1012	1.1300e-003	0.0271	1.1900e-003	0.0283	7.7900e-003	1.1400e-003	8.9300e-003		119.0406	119.0406	4.9000e-003		119.1632
Worker	0.0982	0.0740	0.8314	2.1500e-003	0.2136	1.7200e-003	0.2153	0.0567	1.5800e-003	0.0582		214.4820	214.4820	7.8400e-003		214.6779
Total	0.1117	0.5120	0.9353	3.3200e-003	0.2415	2.9500e-003	0.2445	0.0647	2.7600e-003	0.0675		337.8605	337.8605	0.0129		338.1830

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	1.1994	11.8387	14.9907	0.0229		0.6065	0.6065		0.5580	0.5580	0.0000	2,213.7450	2,213.7450	0.7160		2,231.6443
Total	1.1994	11.8387	14.9907	0.0229		0.6065	0.6065		0.5580	0.5580	0.0000	2,213.7450	2,213.7450	0.7160		2,231.6443

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.25 Sub Transmission - Below Ground - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.8000e-004	0.0127	2.7700e-003	4.0000e-005	8.9000e-004	4.0000e-005	9.4000e-004	2.5000e-004	4.0000e-005	2.9000e-004		4.3379	4.3379	1.6000e-004		4.3418
Vendor	0.0132	0.4253	0.1012	1.1300e-003	0.0271	1.1900e-003	0.0283	7.7900e-003	1.1400e-003	8.9300e-003		119.0406	119.0406	4.9000e-003		119.1632
Worker	0.0982	0.0740	0.8314	2.1500e-003	0.2136	1.7200e-003	0.2153	0.0567	1.5800e-003	0.0582		214.4820	214.4820	7.8400e-003		214.6779
Total	0.1117	0.5120	0.9353	3.3200e-003	0.2415	2.9500e-003	0.2445	0.0647	2.7600e-003	0.0675		337.8605	337.8605	0.0129		338.1830

3.26 Sub Transmission - System Installation - 2022

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	0.9845	10.7058	8.1338	0.0184		0.4438	0.4438		0.4083	0.4083		1,780.2958	1,780.2958	0.5758		1,794.6904
Total	0.9845	10.7058	8.1338	0.0184		0.4438	0.4438		0.4083	0.4083		1,780.2958	1,780.2958	0.5758		1,794.6904

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.26 Sub Transmission - System Installation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.3700e-003	0.0465	0.0101	1.5000e-004	3.2700e-003	1.6000e-004	3.4300e-003	9.0000e-004	1.6000e-004	1.0500e-003		15.8606	15.8606	5.7000e-004		15.8748
Vendor	0.0264	0.8506	0.2025	2.2600e-003	0.0541	2.3800e-003	0.0565	0.0156	2.2800e-003	0.0179		238.0812	238.0812	9.8100e-003		238.3264
Worker	0.0604	0.0455	0.5116	1.3300e-003	0.1314	1.0600e-003	0.1325	0.0349	9.8000e-004	0.0358		131.9889	131.9889	4.8200e-003		132.1095
Total	0.0882	0.9426	0.7242	3.7400e-003	0.1888	3.6000e-003	0.1924	0.0513	3.4200e-003	0.0547		385.9308	385.9308	0.0152		386.3107

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	0.9845	10.7058	8.1338	0.0184		0.4438	0.4438		0.4083	0.4083	0.0000	1,780.2958	1,780.2958	0.5758		1,794.6904
Total	0.9845	10.7058	8.1338	0.0184		0.4438	0.4438		0.4083	0.4083	0.0000	1,780.2958	1,780.2958	0.5758		1,794.6904

Gonzales Microgrid Construction Analysis - Monterey County, Summer

3.26 Sub Transmission - System Installation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.3700e-003	0.0465	0.0101	1.5000e-004	3.2700e-003	1.6000e-004	3.4300e-003	9.0000e-004	1.6000e-004	1.0500e-003		15.8606	15.8606	5.7000e-004		15.8748
Vendor	0.0264	0.8506	0.2025	2.2600e-003	0.0541	2.3800e-003	0.0565	0.0156	2.2800e-003	0.0179		238.0812	238.0812	9.8100e-003		238.3264
Worker	0.0604	0.0455	0.5116	1.3300e-003	0.1314	1.0600e-003	0.1325	0.0349	9.8000e-004	0.0358		131.9889	131.9889	4.8200e-003		132.1095
Total	0.0882	0.9426	0.7242	3.7400e-003	0.1888	3.6000e-003	0.1924	0.0513	3.4200e-003	0.0547		385.9308	385.9308	0.0152		386.3107

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Gonzales Microgrid Construction Analysis - Monterey County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Gonzales Microgrid Construction Analysis - Monterey County, Summer

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.543895	0.028716	0.205211	0.131753	0.021859	0.005504	0.019097	0.027308	0.004155	0.002738	0.007724	0.001236	0.000805
Other Asphalt Surfaces	0.543895	0.028716	0.205211	0.131753	0.021859	0.005504	0.019097	0.027308	0.004155	0.002738	0.007724	0.001236	0.000805
Parking Lot	0.543895	0.028716	0.205211	0.131753	0.021859	0.005504	0.019097	0.027308	0.004155	0.002738	0.007724	0.001236	0.000805

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	lb/day										lb/day					
NaturalGas Mitigated	0.0117	0.1063	0.0893	6.4000e-004		8.0800e-003	8.0800e-003		8.0800e-003	8.0800e-003		127.5423	127.5423	2.4400e-003	2.3400e-003	128.3002
NaturalGas Unmitigated	0.0117	0.1063	0.0893	6.4000e-004		8.0800e-003	8.0800e-003		8.0800e-003	8.0800e-003		127.5423	127.5423	2.4400e-003	2.3400e-003	128.3002

Gonzales Microgrid Construction Analysis - Monterey County, Summer

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	1084.11	0.0117	0.1063	0.0893	6.4000e-004		8.0800e-003	8.0800e-003		8.0800e-003	8.0800e-003		127.5423	127.5423	2.4400e-003	2.3400e-003	128.3002
Other 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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0117	0.1063	0.0893	6.4000e-004		8.0800e-003	8.0800e-003		8.0800e-003	8.0800e-003		127.5423	127.5423	2.4400e-003	2.3400e-003	128.3002

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	1.08411	0.0117	0.1063	0.0893	6.4000e-004		8.0800e-003	8.0800e-003		8.0800e-003	8.0800e-003		127.5423	127.5423	2.4400e-003	2.3400e-003	128.3002
Other 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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0117	0.1063	0.0893	6.4000e-004		8.0800e-003	8.0800e-003		8.0800e-003	8.0800e-003		127.5423	127.5423	2.4400e-003	2.3400e-003	128.3002

6.0 Area Detail

Gonzales Microgrid Construction Analysis - Monterey County, Summer

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	0.5188	3.0000e-005	2.7500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.8800e-003	5.8800e-003	2.0000e-005		6.2700e-003
Unmitigated	0.5188	3.0000e-005	2.7500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.8800e-003	5.8800e-003	2.0000e-005		6.2700e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1671					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3514					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.6000e-004	3.0000e-005	2.7500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.8800e-003	5.8800e-003	2.0000e-005		6.2700e-003
Total	0.5188	3.0000e-005	2.7500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.8800e-003	5.8800e-003	2.0000e-005		6.2700e-003

Gonzales Microgrid Construction Analysis - Monterey County, Summer

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1671					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3514					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.6000e-004	3.0000e-005	2.7500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.8800e-003	5.8800e-003	2.0000e-005		6.2700e-003
Total	0.5188	3.0000e-005	2.7500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.8800e-003	5.8800e-003	2.0000e-005		6.2700e-003

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

Gonzales Microgrid Construction Analysis - Monterey County, Summer

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

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

User Defined Equipment

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

11.0 Vegetation

Gonzales Microgrid Construction Analysis - Monterey County, Winter

**Gonzales Microgrid Construction Analysis
Monterey County, Winter**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	15.00	1000sqft	0.34	15,000.00	0
Other Asphalt Surfaces	1.88	Acre	1.88	81,892.80	0
Parking Lot	10.00	Space	0.09	4,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.6	Precipitation Freq (Days)	55
Climate Zone	4			Operational Year	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

- Project Characteristics - Construction only analysis.
- Land Use - Construction only analysis.
- Construction Phase - Provided by applicant.
- Off-road Equipment - Per applicant provided information.
- Off-road Equipment - Per applicant.
- Off-road Equipment - Applicant provided information.
- Off-road Equipment - Per applicant.
- Off-road Equipment - Per applicant.

Gonzales Microgrid Construction Analysis - Monterey County, Winter

Off-road Equipment - Per applicant. Ozzie Padder modeled as 175 hp Crawler Tractor.

Off-road Equipment - Per applicant.

Off-road Equipment - Per applicant.

Off-road Equipment - Per applicant. Ozzie Padder modeled as 175 hp Crawler Tractor.

Off-road Equipment - Per applicant. Line Truck modeled as Aerial Lift. Boom Truck modeled as Crane. LoDrill modeled as Excavator.

Off-road Equipment - Per applicant.

Off-road Equipment - Per applicant provided information.

Off-road Equipment - Per applicant.

Off-road Equipment - Per applicant provided information.

Off-road Equipment - Per applicant.

Off-road Equipment - Applicant provided information.

Off-road Equipment - Per applicant

Off-road Equipment - Per applicant.

Off-road Equipment - Per applicant

Off-road Equipment - Per applicant

Off-road Equipment - Per applicant. ATV modeled as off-highway tractor with 51 hp. Pile Driver modeled as Bore/Drill Rig.

Off-road Equipment - Per applicant.

Off-road Equipment - Per applicant. Ozzie Padder modeled as 175 hp Crawler Tractor.

Off-road Equipment - Per applicant. Ozzie Padder modeled as 175 hp Crawler Tractor.

Off-road Equipment - Per applicant.

Off-road Equipment - Per applicant. Line Truck modeled as Aerial Lift. Boom Truck modeled as Crane. LoDrill modeled as Excavator.

Trips and VMT - Per applicant.

On-road Fugitive Dust - Default values other than Solar construction site assumes 98% paved roads.

Demolition - None.

Grading - Material import or export accounted for in haul truck trips for each construction phase, assumed that onsite materials are balanced for grading. Import due to paving materials is included in truck trips.

Architectural Coating - Based on applicant provided information.

Vehicle Trips - Construction only.

Gonzales Microgrid Construction Analysis - Monterey County, Winter

Woodstoves -

Energy Use -

Water And Wastewater - Construction only.

Solid Waste - Construction only.

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	7,500.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	7,500.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	22,500.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	22,500.00	0.00
tblArchitecturalCoating	ConstArea_Parking	5,154.00	1,620.00
tblArchitecturalCoating	ConstArea_Parking	5,154.00	240.00
tblArchitecturalCoating	ConstArea_Parking	5,154.00	0.00
tblAreaCoating	Area_Nonresidential_Exterior	7500	20000
tblAreaCoating	Area_Nonresidential_Interior	22500	60000
tblAreaCoating	Area_Parking	5154	7741
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	40
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tblConstructionPhase	NumDays	10.00	6.00
tblConstructionPhase	NumDays	10.00	2.00
tblConstructionPhase	NumDays	220.00	56.00
tblConstructionPhase	NumDays	220.00	27.00
tblConstructionPhase	NumDays	220.00	22.00
tblConstructionPhase	NumDays	220.00	39.00
tblConstructionPhase	NumDays	220.00	32.00

Gonzales Microgrid Construction Analysis - Monterey County, Winter

tblConstructionPhase	NumDays	220.00	66.00
tblConstructionPhase	NumDays	220.00	111.00
tblConstructionPhase	NumDays	220.00	44.00
tblConstructionPhase	NumDays	6.00	4.00
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tblConstructionPhase	NumDays	6.00	35.00
tblConstructionPhase	NumDays	10.00	22.00
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tblConstructionPhase	NumDays	3.00	10.00
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tblConstructionPhase	NumDays	3.00	2.00
tblGrading	AcresOfGrading	1.50	3.00
tblGrading	AcresOfGrading	1.00	0.00
tblOffRoadEquipment	HorsePower	212.00	175.00
tblOffRoadEquipment	HorsePower	212.00	175.00
tblOffRoadEquipment	HorsePower	212.00	175.00
tblOffRoadEquipment	HorsePower	212.00	175.00
tblOffRoadEquipment	HorsePower	124.00	51.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00

Gonzales Microgrid Construction Analysis - Monterey County, Winter

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00

Gonzales Microgrid Construction Analysis - Monterey County, Winter

tbloffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tbloffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
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tbloffRoadEquipment	PhaseName		Solar - System Installation
tbloffRoadEquipment	PhaseName		Electric Distribution - Above Ground
tbloffRoadEquipment	PhaseName		Solar - Underground Collector Lines
tbloffRoadEquipment	PhaseName		Electric Distribution - Above Ground
tbloffRoadEquipment	PhaseName		Gen-Tie - Interconnection Construction
tbloffRoadEquipment	PhaseName		Solar - Underground Collector Lines
tbloffRoadEquipment	PhaseName		Solar - System Installation
tbloffRoadEquipment	PhaseName		Electric Distribution - Site Preparation
tbloffRoadEquipment	PhaseName		Electric Distribution - Above Ground
tbloffRoadEquipment	PhaseName		Solar - Site Preparation
tbloffRoadEquipment	PhaseName		Solar - Underground Collector Lines
tbloffRoadEquipment	PhaseName		Electric Distribution - Above Ground
tbloffRoadEquipment	PhaseName		Solar - Fence Installation
tbloffRoadEquipment	PhaseName		Solar - System Installation
tbloffRoadEquipment	PhaseName		Electric Distribution - Site Preparation
tbloffRoadEquipment	PhaseName		Solar - Site Preparation
tbloffRoadEquipment	PhaseName		Solar - Testing and Restoration
tbloffRoadEquipment	PhaseName		Solar - Fence Installation
tbloffRoadEquipment	UsageHours	8.00	6.00
tbloffRoadEquipment	UsageHours	8.00	6.00
tbloffRoadEquipment	UsageHours	8.00	7.00
tbloffRoadEquipment	UsageHours	8.00	4.00
tbloffRoadEquipment	UsageHours	7.00	6.00

Gonzales Microgrid Construction Analysis - Monterey County, Winter

tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
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tblOffRoadEquipment	UsageHours	8.00	7.00
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tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
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tblOnRoadDust	HaulingPercentPave	100.00	98.00
tblOnRoadDust	HaulingPercentPave	100.00	98.00
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tblOnRoadDust	HaulingPercentPave	100.00	98.00
tblOnRoadDust	HaulingPercentPave	100.00	98.00
tblOnRoadDust	VendorPercentPave	100.00	98.00
tblOnRoadDust	VendorPercentPave	100.00	98.00

Gonzales Microgrid Construction Analysis - Monterey County, Winter

tblOnRoadDust	VendorPercentPave	100.00	98.00
tblOnRoadDust	VendorPercentPave	100.00	98.00
tblOnRoadDust	VendorPercentPave	100.00	98.00
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tblSolidWaste	SolidWasteGenerationRate	18.60	0.00
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tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	17.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00

Gonzales Microgrid Construction Analysis - Monterey County, Winter

tblTripsAndVMT	VendorTripNumber	0.00	8.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	17.00	2.00
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tblTripsAndVMT	WorkerTripNumber	5.00	16.00
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tblTripsAndVMT	WorkerTripNumber	42.00	26.00
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Gonzales Microgrid Construction Analysis - Monterey County, Winter

tblTripsAndVMT	WorkerTripNumber	15.00	14.00
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tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	3,468,750.00	0.00

2.0 Emissions Summary

Gonzales Microgrid Construction Analysis - Monterey County, Winter

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.5188	3.0000e-005	2.7500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.8800e-003	5.8800e-003	2.0000e-005		6.2700e-003
Energy	0.0117	0.1063	0.0893	6.4000e-004		8.0800e-003	8.0800e-003		8.0800e-003	8.0800e-003		127.5423	127.5423	2.4400e-003	2.3400e-003	128.3002
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.5305	0.1063	0.0920	6.4000e-004	0.0000	8.0900e-003	8.0900e-003	0.0000	8.0900e-003	8.0900e-003		127.5482	127.5482	2.4600e-003	2.3400e-003	128.3065

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	0.5188	3.0000e-005	2.7500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.8800e-003	5.8800e-003	2.0000e-005		6.2700e-003
Energy	0.0117	0.1063	0.0893	6.4000e-004		8.0800e-003	8.0800e-003		8.0800e-003	8.0800e-003		127.5423	127.5423	2.4400e-003	2.3400e-003	128.3002
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.5305	0.1063	0.0920	6.4000e-004	0.0000	8.0900e-003	8.0900e-003	0.0000	8.0900e-003	8.0900e-003		127.5482	127.5482	2.4600e-003	2.3400e-003	128.3065

Gonzales Microgrid Construction Analysis - Monterey County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
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 - Powerhouse + BESS	Site Preparation	8/1/2021	8/3/2021	5	2	
2	Solar - Fence Installation	Site Preparation	8/1/2021	8/21/2021	5	15	
3	Solar - Site Preparation	Site Preparation	8/1/2021	8/28/2021	5	20	
4	Grading - Powerhouse + BESS	Grading	8/4/2021	8/18/2021	5	11	
5	Solar - System Installation	Building Construction	8/15/2021	11/15/2021	5	66	
6	Building Construction - Powerhouse + BESS	Building Construction	8/20/2021	1/21/2022	5	111	
7	Solar - Underground Collector Lines	Grading	8/29/2021	10/15/2021	5	35	
8	Site Preparation - Bodega Road	Site Preparation	9/15/2021	9/16/2021	5	2	
9	Solar - Collector Substation	Building Construction	9/15/2021	11/15/2021	5	44	
10	Grading - Bodega Road	Grading	9/17/2021	9/22/2021	5	4	
11	Paving - Bodega Road	Paving	9/23/2021	10/22/2021	5	22	
12	Electric Distribution - Site Preparation	Site Preparation	10/1/2021	10/14/2021	5	10	
13	Electric Distribution - Above Ground	Building Construction	10/15/2021	12/31/2021	5	56	
14	Arch Coating - Bodega Road	Architectural Coating	10/23/2021	10/27/2021	5	3	
15	Solar - Testing and Restoration	Site Preparation	11/15/2021	12/15/2021	5	23	
16	Gen-Tie - Site Preparation	Site Preparation	12/15/2021	1/22/2022	5	28	
17	Electric Distribution - Site Clean Up	Site Preparation	1/1/2022	1/15/2022	5	10	
18	Gen-Tie - Above Ground Work	Building Construction	1/1/2022	2/8/2022	5	27	

Gonzales Microgrid Construction Analysis - Monterey County, Winter

19	Paving - Powerhouse + BESS	Paving	1/5/2022	1/12/2022	5	6
20	Arch Coating - Powerhouse + BESS	Architectural Coating	1/14/2022	1/21/2022	5	6
21	Gen-Tie - Interconnection Construction	Building Construction	1/15/2022	2/15/2022	5	22
22	Arch Coating - Electric Distribution	Architectural Coating	1/16/2022	1/18/2022	5	2
23	Sub Transmission - Site Preparation	Site Preparation	7/1/2022	7/14/2022	5	10
24	Sub Transmission - Below Ground	Building Construction	7/15/2022	9/7/2022	5	39
25	Sub Transmission - System Installation	Building Construction	9/8/2022	10/22/2022	5	32

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 1.97

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 - Powerhouse + BESS	Graders	1	8.00	187	0.41
Site Preparation - Powerhouse + BESS	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Solar - Fence Installation	Rough Terrain Forklifts	1	8.00	100	0.40
Solar - Fence Installation	Skid Steer Loaders	3	8.00	65	0.37
Solar - Site Preparation	Graders	2	8.00	187	0.41
Solar - Site Preparation	Rollers	2	8.00	80	0.38
Solar - Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Solar - Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading - Powerhouse + BESS	Concrete/Industrial Saws	1	8.00	81	0.73
Grading - Powerhouse + BESS	Rubber Tired Dozers	1	1.00	247	0.40

Gonzales Microgrid Construction Analysis - Monterey County, Winter

Grading - Powerhouse + BESS	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Solar - System Installation	Bore/Drill Rigs	2	8.00	221	0.50
Solar - System Installation	Cranes	1	7.00	231	0.29
Solar - System Installation	Off-Highway Tractors	10	8.00	51	0.44
Solar - System Installation	Rough Terrain Forklifts	4	8.00	100	0.40
Building Construction - Powerhouse + BESS	Cranes	1	4.00	231	0.29
Building Construction - Powerhouse + BESS	Forklifts	2	6.00	89	0.20
Building Construction - Powerhouse + BESS	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Solar - Underground Collector Lines	Crawler Tractors	1	8.00	175	0.43
Solar - Underground Collector Lines	Excavators	2	8.00	158	0.38
Solar - Underground Collector Lines	Rollers	1	8.00	80	0.38
Site Preparation - Bodega Road	Graders	1	8.00	187	0.41
Site Preparation - Bodega Road	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation - Bodega Road	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Solar - Collector Substation	Air Compressors	1	8.00	78	0.48
Solar - Collector Substation	Cranes	1	8.00	231	0.29
Solar - Collector Substation	Generator Sets	1	8.00	84	0.74
Solar - Collector Substation	Rough Terrain Forklifts	2	8.00	100	0.40
Solar - Collector Substation	Tractors/Loaders/Backhoes	2	4.00	97	0.37
Solar - Collector Substation	Welders	1	4.00	46	0.45
Grading - Bodega Road	Excavators	0	8.00	158	0.38
Grading - Bodega Road	Graders	1	6.00	187	0.41
Grading - Bodega Road	Rubber Tired Dozers	1	6.00	247	0.40
Grading - Bodega Road	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving - Bodega Road	Cement and Mortar Mixers	1	6.00	9	0.56
Paving - Bodega Road	Pavers	1	6.00	130	0.42

Gonzales Microgrid Construction Analysis - Monterey County, Winter

Paving - Bodega Road	Paving Equipment	1	8.00	132	0.36
Paving - Bodega Road	Rollers	1	7.00	80	0.38
Paving - Bodega Road	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Electric Distribution - Site Preparation	Graders	2	8.00	187	0.41
Electric Distribution - Site Preparation	Rollers	1	8.00	80	0.38
Electric Distribution - Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Electric Distribution - Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Electric Distribution - Above Ground	Crawler Tractors	1	8.00	175	0.43
Electric Distribution - Above Ground	Excavators	2	8.00	158	0.38
Electric Distribution - Above Ground	Rollers	1	8.00	80	0.38
Electric Distribution - Above Ground	Rough Terrain Forklifts	1	8.00	100	0.40
Arch Coating - Bodega Road	Air Compressors	1	6.00	78	0.48
Solar - Testing and Restoration	Graders	1	8.00	187	0.41
Solar - Testing and Restoration	Skid Steer Loaders	1	8.00	65	0.37
Gen-Tie - Site Preparation	Graders	2	8.00	187	0.41
Gen-Tie - Site Preparation	Rollers	1	8.00	80	0.38
Gen-Tie - Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Gen-Tie - Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Electric Distribution - Site Clean Up	Pavers	1	8.00	130	0.42
Electric Distribution - Site Clean Up	Paving Equipment	2	6.00	132	0.36
Electric Distribution - Site Clean Up	Rollers	2	6.00	80	0.38
Electric Distribution - Site Clean Up	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Gen-Tie - Above Ground Work	Crawler Tractors	1	8.00	175	0.43
Gen-Tie - Above Ground Work	Excavators	2	8.00	158	0.38
Gen-Tie - Above Ground Work	Rollers	1	8.00	80	0.38
Gen-Tie - Above Ground Work	Rough Terrain Forklifts	1	8.00	100	0.40
Paving - Powerhouse + BESS	Cement and Mortar Mixers	4	6.00	9	0.56

Gonzales Microgrid Construction Analysis - Monterey County, Winter

Paving - Powerhouse + BESS	Pavers	1	7.00	130	0.42
Paving - Powerhouse + BESS	Rollers	1	7.00	80	0.38
Paving - Powerhouse + BESS	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Arch Coating - Powerhouse + BESS	Air Compressors	1	6.00	78	0.48
Gen-Tie - Interconnection Construction	Aerial Lifts	1	8.00	63	0.31
Gen-Tie - Interconnection Construction	Cranes	2	8.00	231	0.29
Gen-Tie - Interconnection Construction	Excavators	1	8.00	158	0.38
Arch Coating - Electric Distribution	Air Compressors	1	6.00	78	0.48
Sub Transmission - Site Preparation	Graders	2	8.00	187	0.41
Sub Transmission - Site Preparation	Rollers	1	8.00	80	0.38
Sub Transmission - Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Sub Transmission - Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Sub Transmission - Below Ground	Crawler Tractors	1	8.00	175	0.43
Sub Transmission - Below Ground	Excavators	2	8.00	158	0.38
Sub Transmission - Below Ground	Rollers	1	8.00	80	0.38
Sub Transmission - Below Ground	Rough Terrain Forklifts	1	8.00	100	0.40
Sub Transmission - System Installation	Aerial Lifts	1	8.00	63	0.31
Sub Transmission - System Installation	Cranes	2	8.00	231	0.29
Sub Transmission - System Installation	Excavators	1	8.00	158	0.38

Trips and VMT

Gonzales Microgrid Construction Analysis - Monterey County, 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 - Powerhouse + BESS	2	6.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Solar - Fence Installation	4	10.00	8.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Solar - Site Preparation	6	14.00	10.00	8.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading - Powerhouse + BESS	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Solar - System Installation	17	116.00	14.00	16.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - Powerhouse + BESS	5	16.00	6.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Solar - Underground Collector Lines	4	14.00	4.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation - Bodega Road	3	12.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Solar - Collector Substation	8	14.00	2.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading - Bodega Road	3	4.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving - Bodega Road	5	20.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Electric Distribution - Site Preparation	5	14.00	10.00	8.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Electric Distribution - Above Ground	5	30.00	10.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Arch Coating - Bodega Road	1	14.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Solar - Testing and Restoration	2	16.00	10.00	4.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Gen-Tie - Site Preparation	5	8.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Electric Distribution - Site Clean Up	6	14.00	2.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Gen-Tie - Above Ground Work	5	26.00	4.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving - Powerhouse + BESS	7	18.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Arch Coating - Powerhouse + BESS	1	4.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Gen-Tie - Interconnection Constr	4	14.00	2.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Arch Coating - Electric Distribution	1	16.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Sub Transmission - Site Preparation	5	8.00	6.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Sub Transmission - Below Ground	5	26.00	4.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Sub Transmission - System Installation	4	16.00	8.00	6.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - Powerhouse + BESS - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.6403	7.8204	4.0274	9.7300e-003		0.2995	0.2995		0.2755	0.2755		942.5842	942.5842	0.3049		950.2055
Total	0.6403	7.8204	4.0274	9.7300e-003	0.5303	0.2995	0.8297	0.0573	0.2755	0.3328		942.5842	942.5842	0.3049		950.2055

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.2 Site Preparation - Powerhouse + BESS - 2021

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	0.0266	0.0240	0.2059	4.8000e-004	0.0493	4.1000e-004	0.0497	0.0131	3.8000e-004	0.0135		48.0345	48.0345	1.9200e-003		48.0825
Total	0.0266	0.0240	0.2059	4.8000e-004	0.0493	4.1000e-004	0.0497	0.0131	3.8000e-004	0.0135		48.0345	48.0345	1.9200e-003		48.0825

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2386	0.0000	0.2386	0.0258	0.0000	0.0258			0.0000			0.0000
Off-Road	0.6403	7.8204	4.0274	9.7300e-003		0.2995	0.2995		0.2755	0.2755	0.0000	942.5842	942.5842	0.3049		950.2055
Total	0.6403	7.8204	4.0274	9.7300e-003	0.2386	0.2995	0.5381	0.0258	0.2755	0.3013	0.0000	942.5842	942.5842	0.3049		950.2055

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.2 Site Preparation - Powerhouse + BESS - 2021

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	0.0266	0.0240	0.2059	4.8000e-004	0.0493	4.1000e-004	0.0497	0.0131	3.8000e-004	0.0135		48.0345	48.0345	1.9200e-003		48.0825
Total	0.0266	0.0240	0.2059	4.8000e-004	0.0493	4.1000e-004	0.0497	0.0131	3.8000e-004	0.0135		48.0345	48.0345	1.9200e-003		48.0825

3.3 Solar - Fence Installation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3497	4.6229	6.4640	9.6500e-003		0.1850	0.1850		0.1702	0.1702		934.3644	934.3644	0.3022		941.9192
Total	0.3497	4.6229	6.4640	9.6500e-003	0.0000	0.1850	0.1850	0.0000	0.1702	0.1702		934.3644	934.3644	0.3022		941.9192

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.3 Solar - Fence Installation - 2021

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	0.0307	0.9059	0.2574	2.2200e-003	1.7723	2.8600e-003	1.7751	0.1869	2.7400e-003	0.1897		233.0463	233.0463	0.0111		233.3241
Worker	0.0443	0.0400	0.3432	8.0000e-004	0.0822	6.9000e-004	0.0828	0.0218	6.3000e-004	0.0224		80.0575	80.0575	3.2000e-003		80.1375
Total	0.0750	0.9459	0.6006	3.0200e-003	1.8544	3.5500e-003	1.8580	0.2087	3.3700e-003	0.2121		313.1038	313.1038	0.0143		313.4616

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3497	4.6229	6.4640	9.6500e-003		0.1850	0.1850		0.1702	0.1702	0.0000	934.3644	934.3644	0.3022		941.9192
Total	0.3497	4.6229	6.4640	9.6500e-003	0.0000	0.1850	0.1850	0.0000	0.1702	0.1702	0.0000	934.3644	934.3644	0.3022		941.9192

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.3 Solar - Fence Installation - 2021

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	0.0307	0.9059	0.2574	2.2200e-003	1.7723	2.8600e-003	1.7751	0.1869	2.7400e-003	0.1897		233.0463	233.0463	0.0111		233.3241
Worker	0.0443	0.0400	0.3432	8.0000e-004	0.0822	6.9000e-004	0.0828	0.0218	6.3000e-004	0.0224		80.0575	80.0575	3.2000e-003		80.1375
Total	0.0750	0.9459	0.6006	3.0200e-003	1.8544	3.5500e-003	1.8580	0.2087	3.3700e-003	0.2121		313.1038	313.1038	0.0143		313.4616

3.4 Solar - Site Preparation - 2021

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					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	2.5186	28.5647	13.5932	0.0301		1.2549	1.2549		1.1545	1.1545		2,919.7983	2,919.7983	0.9443		2,943.4063
Total	2.5186	28.5647	13.5932	0.0301	7.0826	1.2549	8.3375	3.4247	1.1545	4.5792		2,919.7983	2,919.7983	0.9443		2,943.4063

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.4 Solar - Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.2400e-003	0.1107	0.0245	3.2000e-004	0.2423	4.2000e-004	0.2428	0.0254	4.0000e-004	0.0258		33.5680	33.5680	1.3200e-003		33.6011
Vendor	0.0383	1.1324	0.3217	2.7700e-003	2.2153	3.5800e-003	2.2189	0.2336	3.4200e-003	0.2371		291.3079	291.3079	0.0139		291.6551
Worker	0.0621	0.0559	0.4805	1.1300e-003	0.1150	9.6000e-004	0.1160	0.0305	8.9000e-004	0.0314		112.0804	112.0804	4.4800e-003		112.1926
Total	0.1036	1.2990	0.8267	4.2200e-003	2.5727	4.9600e-003	2.5776	0.2895	4.7100e-003	0.2942		436.9564	436.9564	0.0197		437.4488

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					3.1872	0.0000	3.1872	1.5411	0.0000	1.5411			0.0000			0.0000
Off-Road	2.5186	28.5647	13.5932	0.0301		1.2549	1.2549		1.1545	1.1545	0.0000	2,919.7983	2,919.7983	0.9443		2,943.4063
Total	2.5186	28.5647	13.5932	0.0301	3.1872	1.2549	4.4421	1.5411	1.1545	2.6956	0.0000	2,919.7983	2,919.7983	0.9443		2,943.4063

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.4 Solar - Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.2400e-003	0.1107	0.0245	3.2000e-004	0.2423	4.2000e-004	0.2428	0.0254	4.0000e-004	0.0258		33.5680	33.5680	1.3200e-003		33.6011
Vendor	0.0383	1.1324	0.3217	2.7700e-003	2.2153	3.5800e-003	2.2189	0.2336	3.4200e-003	0.2371		291.3079	291.3079	0.0139		291.6551
Worker	0.0621	0.0559	0.4805	1.1300e-003	0.1150	9.6000e-004	0.1160	0.0305	8.9000e-004	0.0314		112.0804	112.0804	4.4800e-003		112.1926
Total	0.1036	1.2990	0.8267	4.2200e-003	2.5727	4.9600e-003	2.5776	0.2895	4.7100e-003	0.2942		436.9564	436.9564	0.0197		437.4488

3.5 Grading - Powerhouse + BESS - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886		1,147.4338	1,147.4338	0.2138		1,152.7797
Total	0.7965	7.2530	7.5691	0.0120	0.7528	0.4073	1.1601	0.4138	0.3886	0.8024		1,147.4338	1,147.4338	0.2138		1,152.7797

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.5 Grading - Powerhouse + BESS - 2021

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	0.0443	0.0400	0.3432	8.0000e-004	0.0822	6.9000e-004	0.0828	0.0218	6.3000e-004	0.0224		80.0575	80.0575	3.2000e-003		80.1375
Total	0.0443	0.0400	0.3432	8.0000e-004	0.0822	6.9000e-004	0.0828	0.0218	6.3000e-004	0.0224		80.0575	80.0575	3.2000e-003		80.1375

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3387	0.0000	0.3387	0.1862	0.0000	0.1862			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886	0.0000	1,147.4338	1,147.4338	0.2138		1,152.7797
Total	0.7965	7.2530	7.5691	0.0120	0.3387	0.4073	0.7461	0.1862	0.3886	0.5748	0.0000	1,147.4338	1,147.4338	0.2138		1,152.7797

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.5 Grading - Powerhouse + BESS - 2021

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	0.0443	0.0400	0.3432	8.0000e-004	0.0822	6.9000e-004	0.0828	0.0218	6.3000e-004	0.0224		80.0575	80.0575	3.2000e-003		80.1375
Total	0.0443	0.0400	0.3432	8.0000e-004	0.0822	6.9000e-004	0.0828	0.0218	6.3000e-004	0.0224		80.0575	80.0575	3.2000e-003		80.1375

3.6 Solar - System Installation - 2021

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	2.9331	31.6705	29.8717	0.0571		1.6384	1.6384		1.5073	1.5073		5,526.1067	5,526.1067	1.7873		5,570.7881
Total	2.9331	31.6705	29.8717	0.0571		1.6384	1.6384		1.5073	1.5073		5,526.1067	5,526.1067	1.7873		5,570.7881

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.6 Solar - System Installation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.9600e-003	0.0671	0.0149	1.9000e-004	0.1469	2.5000e-004	0.1471	0.0154	2.4000e-004	0.0156		20.3443	20.3443	8.0000e-004		20.3643
Vendor	0.0536	1.5854	0.4504	3.8800e-003	3.1015	5.0100e-003	3.1065	0.3271	4.7900e-003	0.3319		407.8311	407.8311	0.0194		408.3171
Worker	0.5142	0.4634	3.9811	9.3400e-003	0.9529	7.9600e-003	0.9609	0.2528	7.3400e-003	0.2601		928.6665	928.6665	0.0372		929.5955
Total	0.5698	2.1159	4.4464	0.0134	4.2012	0.0132	4.2145	0.5952	0.0124	0.6076		1,356.8418	1,356.8418	0.0574		1,358.2769

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	2.9331	31.6705	29.8717	0.0571		1.6384	1.6384		1.5073	1.5073	0.0000	5,526.1067	5,526.1067	1.7873		5,570.7881
Total	2.9331	31.6705	29.8717	0.0571		1.6384	1.6384		1.5073	1.5073	0.0000	5,526.1067	5,526.1067	1.7873		5,570.7881

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.6 Solar - System Installation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.9600e-003	0.0671	0.0149	1.9000e-004	0.1469	2.5000e-004	0.1471	0.0154	2.4000e-004	0.0156		20.3443	20.3443	8.0000e-004		20.3643
Vendor	0.0536	1.5854	0.4504	3.8800e-003	3.1015	5.0100e-003	3.1065	0.3271	4.7900e-003	0.3319		407.8311	407.8311	0.0194		408.3171
Worker	0.5142	0.4634	3.9811	9.3400e-003	0.9529	7.9600e-003	0.9609	0.2528	7.3400e-003	0.2601		928.6665	928.6665	0.0372		929.5955
Total	0.5698	2.1159	4.4464	0.0134	4.2012	0.0132	4.2145	0.5952	0.0124	0.6076		1,356.8418	1,356.8418	0.0574		1,358.2769

3.7 Building Construction - Powerhouse + BESS - 2021

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	0.7282	7.5110	6.6986	0.0106		0.4196	0.4196		0.3860	0.3860		1,027.9908	1,027.9908	0.3325		1,036.3026
Total	0.7282	7.5110	6.6986	0.0106		0.4196	0.4196		0.3860	0.3860		1,027.9908	1,027.9908	0.3325		1,036.3026

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.7 Building Construction - Powerhouse + BESS - 2021

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	0.0230	0.6794	0.1930	1.6600e-003	0.0406	2.1500e-003	0.0427	0.0117	2.0500e-003	0.0137		174.7848	174.7848	8.3300e-003		174.9931
Worker	0.0709	0.0639	0.5491	1.2900e-003	0.1314	1.1000e-003	0.1325	0.0349	1.0100e-003	0.0359		128.0919	128.0919	5.1300e-003		128.2201
Total	0.0939	0.7434	0.7422	2.9500e-003	0.1720	3.2500e-003	0.1753	0.0465	3.0600e-003	0.0496		302.8767	302.8767	0.0135		303.2131

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	0.7282	7.5110	6.6986	0.0106		0.4196	0.4196		0.3860	0.3860	0.0000	1,027.9908	1,027.9908	0.3325		1,036.3026
Total	0.7282	7.5110	6.6986	0.0106		0.4196	0.4196		0.3860	0.3860	0.0000	1,027.9908	1,027.9908	0.3325		1,036.3026

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.7 Building Construction - Powerhouse + BESS - 2021

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	0.0230	0.6794	0.1930	1.6600e-003	0.0406	2.1500e-003	0.0427	0.0117	2.0500e-003	0.0137		174.7848	174.7848	8.3300e-003		174.9931
Worker	0.0709	0.0639	0.5491	1.2900e-003	0.1314	1.1000e-003	0.1325	0.0349	1.0100e-003	0.0359		128.0919	128.0919	5.1300e-003		128.2201
Total	0.0939	0.7434	0.7422	2.9500e-003	0.1720	3.2500e-003	0.1753	0.0465	3.0600e-003	0.0496		302.8767	302.8767	0.0135		303.2131

3.7 Building Construction - Powerhouse + BESS - 2022

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	0.6451	6.6069	6.5932	0.0106		0.3494	0.3494		0.3214	0.3214		1,028.6296	1,028.6296	0.3327		1,036.9466
Total	0.6451	6.6069	6.5932	0.0106		0.3494	0.3494		0.3214	0.3214		1,028.6296	1,028.6296	0.3327		1,036.9466

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.7 Building Construction - Powerhouse + BESS - 2022

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	0.0211	0.6425	0.1751	1.6500e-003	0.0406	1.8700e-003	0.0425	0.0117	1.7900e-003	0.0135		173.2755	173.2755	8.0800e-003		173.4774
Worker	0.0658	0.0573	0.5000	1.2400e-003	0.1314	1.0600e-003	0.1325	0.0349	9.8000e-004	0.0358		123.5846	123.5846	4.5700e-003		123.6989
Total	0.0869	0.6998	0.6751	2.8900e-003	0.1720	2.9300e-003	0.1750	0.0465	2.7700e-003	0.0493		296.8600	296.8600	0.0127		297.1763

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	0.6451	6.6069	6.5932	0.0106		0.3494	0.3494		0.3214	0.3214	0.0000	1,028.6296	1,028.6296	0.3327		1,036.9466
Total	0.6451	6.6069	6.5932	0.0106		0.3494	0.3494		0.3214	0.3214	0.0000	1,028.6296	1,028.6296	0.3327		1,036.9466

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.7 Building Construction - Powerhouse + BESS - 2022

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	0.0211	0.6425	0.1751	1.6500e-003	0.0406	1.8700e-003	0.0425	0.0117	1.7900e-003	0.0135		173.2755	173.2755	8.0800e-003		173.4774
Worker	0.0658	0.0573	0.5000	1.2400e-003	0.1314	1.0600e-003	0.1325	0.0349	9.8000e-004	0.0358		123.5846	123.5846	4.5700e-003		123.6989
Total	0.0869	0.6998	0.6751	2.8900e-003	0.1720	2.9300e-003	0.1750	0.0465	2.7700e-003	0.0493		296.8600	296.8600	0.0127		297.1763

3.8 Solar - Underground Collector Lines - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.2260	12.0636	12.8168	0.0194		0.6511	0.6511		0.5990	0.5990		1,880.1347	1,880.1347	0.6081		1,895.3366
Total	1.2260	12.0636	12.8168	0.0194	0.5303	0.6511	1.1813	0.0573	0.5990	0.6562		1,880.1347	1,880.1347	0.6081		1,895.3366

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.8 Solar - Underground Collector Lines - 2021

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	4.6000e-004	0.0158	3.5000e-003	5.0000e-005	0.0346	6.0000e-005	0.0347	3.6300e-003	6.0000e-005	3.6800e-003		4.7954	4.7954	1.9000e-004		4.8002
Vendor	0.0153	0.4530	0.1287	1.1100e-003	0.8861	1.4300e-003	0.8876	0.0935	1.3700e-003	0.0948		116.5232	116.5232	5.5500e-003		116.6620
Worker	0.0621	0.0559	0.4805	1.1300e-003	0.1150	9.6000e-004	0.1160	0.0305	8.9000e-004	0.0314		112.0804	112.0804	4.4800e-003		112.1926
Total	0.0778	0.5247	0.6127	2.2900e-003	1.0358	2.4500e-003	1.0382	0.1276	2.3200e-003	0.1299		233.3990	233.3990	0.0102		233.6548

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2386	0.0000	0.2386	0.0258	0.0000	0.0258			0.0000			0.0000
Off-Road	1.2260	12.0636	12.8168	0.0194		0.6511	0.6511		0.5990	0.5990	0.0000	1,880.1347	1,880.1347	0.6081		1,895.3365
Total	1.2260	12.0636	12.8168	0.0194	0.2386	0.6511	0.8897	0.0258	0.5990	0.6247	0.0000	1,880.1347	1,880.1347	0.6081		1,895.3365

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.8 Solar - Underground Collector Lines - 2021

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	4.6000e-004	0.0158	3.5000e-003	5.0000e-005	0.0346	6.0000e-005	0.0347	3.6300e-003	6.0000e-005	3.6800e-003		4.7954	4.7954	1.9000e-004		4.8002
Vendor	0.0153	0.4530	0.1287	1.1100e-003	0.8861	1.4300e-003	0.8876	0.0935	1.3700e-003	0.0948		116.5232	116.5232	5.5500e-003		116.6620
Worker	0.0621	0.0559	0.4805	1.1300e-003	0.1150	9.6000e-004	0.1160	0.0305	8.9000e-004	0.0314		112.0804	112.0804	4.4800e-003		112.1926
Total	0.0778	0.5247	0.6127	2.2900e-003	1.0358	2.4500e-003	1.0382	0.1276	2.3200e-003	0.1299		233.3990	233.3990	0.0102		233.6548

3.9 Site Preparation - Bodega Road - 2021

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					5.2693	0.0000	5.2693	2.8965	0.0000	2.8965			0.0000			0.0000
Off-Road	1.5558	17.4203	7.5605	0.0172		0.7654	0.7654		0.7041	0.7041		1,666.5174	1,666.5174	0.5390		1,679.9920
Total	1.5558	17.4203	7.5605	0.0172	5.2693	0.7654	6.0347	2.8965	0.7041	3.6006		1,666.5174	1,666.5174	0.5390		1,679.9920

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.9 Site Preparation - Bodega Road - 2021

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	0.0532	0.0479	0.4118	9.7000e-004	0.0986	8.2000e-004	0.0994	0.0262	7.6000e-004	0.0269		96.0690	96.0690	3.8400e-003		96.1651
Total	0.0532	0.0479	0.4118	9.7000e-004	0.0986	8.2000e-004	0.0994	0.0262	7.6000e-004	0.0269		96.0690	96.0690	3.8400e-003		96.1651

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					2.3712	0.0000	2.3712	1.3034	0.0000	1.3034			0.0000			0.0000
Off-Road	1.5558	17.4203	7.5605	0.0172		0.7654	0.7654		0.7041	0.7041	0.0000	1,666.5174	1,666.5174	0.5390		1,679.9920
Total	1.5558	17.4203	7.5605	0.0172	2.3712	0.7654	3.1366	1.3034	0.7041	2.0075	0.0000	1,666.5174	1,666.5174	0.5390		1,679.9920

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.9 Site Preparation - Bodega Road - 2021

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	0.0532	0.0479	0.4118	9.7000e-004	0.0986	8.2000e-004	0.0994	0.0262	7.6000e-004	0.0269		96.0690	96.0690	3.8400e-003		96.1651
Total	0.0532	0.0479	0.4118	9.7000e-004	0.0986	8.2000e-004	0.0994	0.0262	7.6000e-004	0.0269		96.0690	96.0690	3.8400e-003		96.1651

3.10 Solar - Collector Substation - 2021

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	1.6472	15.9261	15.7989	0.0276		0.7639	0.7639		0.7292	0.7292		2,629.2149	2,629.2149	0.5650		2,643.3392
Total	1.6472	15.9261	15.7989	0.0276		0.7639	0.7639		0.7292	0.7292		2,629.2149	2,629.2149	0.5650		2,643.3392

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.10 Solar - Collector Substation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.7000e-004	0.0126	2.7800e-003	4.0000e-005	0.0275	5.0000e-005	0.0276	2.8800e-003	5.0000e-005	2.9300e-003		3.8146	3.8146	1.5000e-004		3.8183
Vendor	7.6600e-003	0.2265	0.0644	5.5000e-004	0.4431	7.2000e-004	0.4438	0.0467	6.8000e-004	0.0474		58.2616	58.2616	2.7800e-003		58.3310
Worker	0.0621	0.0559	0.4805	1.1300e-003	0.1150	9.6000e-004	0.1160	0.0305	8.9000e-004	0.0314		112.0804	112.0804	4.4800e-003		112.1926
Total	0.0701	0.2950	0.5476	1.7200e-003	0.5856	1.7300e-003	0.5873	0.0801	1.6200e-003	0.0817		174.1566	174.1566	7.4100e-003		174.3419

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	1.6472	15.9261	15.7989	0.0276		0.7639	0.7639		0.7292	0.7292	0.0000	2,629.2149	2,629.2149	0.5650		2,643.3392
Total	1.6472	15.9261	15.7989	0.0276		0.7639	0.7639		0.7292	0.7292	0.0000	2,629.2149	2,629.2149	0.5650		2,643.3392

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.10 Solar - Collector Substation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.7000e-004	0.0126	2.7800e-003	4.0000e-005	0.0275	5.0000e-005	0.0276	2.8800e-003	5.0000e-005	2.9300e-003		3.8146	3.8146	1.5000e-004		3.8183
Vendor	7.6600e-003	0.2265	0.0644	5.5000e-004	0.4431	7.2000e-004	0.4438	0.0467	6.8000e-004	0.0474		58.2616	58.2616	2.7800e-003		58.3310
Worker	0.0621	0.0559	0.4805	1.1300e-003	0.1150	9.6000e-004	0.1160	0.0305	8.9000e-004	0.0314		112.0804	112.0804	4.4800e-003		112.1926
Total	0.0701	0.2950	0.5476	1.7200e-003	0.5856	1.7300e-003	0.5873	0.0801	1.6200e-003	0.0817		174.1566	174.1566	7.4100e-003		174.3419

3.11 Grading - Bodega Road - 2021

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					5.3119	0.0000	5.3119	2.5686	0.0000	2.5686			0.0000			0.0000
Off-Road	1.2884	14.3307	6.3314	0.0141		0.6379	0.6379		0.5869	0.5869		1,365.0648	1,365.0648	0.4415		1,376.1020
Total	1.2884	14.3307	6.3314	0.0141	5.3119	0.6379	5.9499	2.5686	0.5869	3.1554		1,365.0648	1,365.0648	0.4415		1,376.1020

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.11 Grading - Bodega Road - 2021

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	0.0177	0.0160	0.1373	3.2000e-004	0.0329	2.7000e-004	0.0331	8.7200e-003	2.5000e-004	8.9700e-003		32.0230	32.0230	1.2800e-003		32.0550
Total	0.0177	0.0160	0.1373	3.2000e-004	0.0329	2.7000e-004	0.0331	8.7200e-003	2.5000e-004	8.9700e-003		32.0230	32.0230	1.2800e-003		32.0550

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					2.3904	0.0000	2.3904	1.1559	0.0000	1.1559			0.0000			0.0000
Off-Road	1.2884	14.3307	6.3314	0.0141		0.6379	0.6379		0.5869	0.5869	0.0000	1,365.0648	1,365.0648	0.4415		1,376.1020
Total	1.2884	14.3307	6.3314	0.0141	2.3904	0.6379	3.0283	1.1559	0.5869	1.7427	0.0000	1,365.0648	1,365.0648	0.4415		1,376.1020

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.11 Grading - Bodega Road - 2021

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	0.0177	0.0160	0.1373	3.2000e-004	0.0329	2.7000e-004	0.0331	8.7200e-003	2.5000e-004	8.9700e-003		32.0230	32.0230	1.2800e-003		32.0550
Total	0.0177	0.0160	0.1373	3.2000e-004	0.0329	2.7000e-004	0.0331	8.7200e-003	2.5000e-004	8.9700e-003		32.0230	32.0230	1.2800e-003		32.0550

3.12 Paving - Bodega Road - 2021

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	0.7739	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830		1,296.8664	1,296.8664	0.4111		1,307.1442
Paving	0.2346					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0085	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830		1,296.8664	1,296.8664	0.4111		1,307.1442

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.12 Paving - Bodega Road - 2021

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	0.0153	0.4530	0.1287	1.1100e-003	0.0271	1.4300e-003	0.0285	7.7900e-003	1.3700e-003	9.1600e-003		116.5232	116.5232	5.5500e-003		116.6620
Worker	0.0887	0.0799	0.6864	1.6100e-003	0.1643	1.3700e-003	0.1657	0.0436	1.2700e-003	0.0448		160.1149	160.1149	6.4100e-003		160.2751
Total	0.1040	0.5329	0.8151	2.7200e-003	0.1914	2.8000e-003	0.1942	0.0514	2.6400e-003	0.0540		276.6381	276.6381	0.0120		276.9371

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	0.7739	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830	0.0000	1,296.8664	1,296.8664	0.4111		1,307.1442
Paving	0.2346					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0085	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830	0.0000	1,296.8664	1,296.8664	0.4111		1,307.1442

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.12 Paving - Bodega Road - 2021

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	0.0153	0.4530	0.1287	1.1100e-003	0.0271	1.4300e-003	0.0285	7.7900e-003	1.3700e-003	9.1600e-003		116.5232	116.5232	5.5500e-003		116.6620
Worker	0.0887	0.0799	0.6864	1.6100e-003	0.1643	1.3700e-003	0.1657	0.0436	1.2700e-003	0.0448		160.1149	160.1149	6.4100e-003		160.2751
Total	0.1040	0.5329	0.8151	2.7200e-003	0.1914	2.8000e-003	0.1942	0.0514	2.6400e-003	0.0540		276.6381	276.6381	0.0120		276.9371

3.13 Electric Distribution - Site Preparation - 2021

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					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	2.3291	26.6405	11.7128	0.0275		1.1373	1.1373		1.0463	1.0463		2,665.7094	2,665.7094	0.8621		2,687.2630
Total	2.3291	26.6405	11.7128	0.0275	7.0826	1.1373	8.2198	3.4247	1.0463	4.4710		2,665.7094	2,665.7094	0.8621		2,687.2630

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.13 Electric Distribution - Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	6.4800e-003	0.2214	0.0490	6.3000e-004	0.0140	8.3000e-004	0.0148	3.8200e-003	8.0000e-004	4.6200e-003		67.1360	67.1360	2.6500e-003		67.2022
Vendor	0.0383	1.1324	0.3217	2.7700e-003	0.0677	3.5800e-003	0.0712	0.0195	3.4200e-003	0.0229		291.3079	291.3079	0.0139		291.6551
Worker	0.0621	0.0559	0.4805	1.1300e-003	0.1150	9.6000e-004	0.1160	0.0305	8.9000e-004	0.0314		112.0804	112.0804	4.4800e-003		112.1926
Total	0.1068	1.4097	0.8512	4.5300e-003	0.1966	5.3700e-003	0.2020	0.0538	5.1100e-003	0.0589		470.5244	470.5244	0.0210		471.0499

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					3.1872	0.0000	3.1872	1.5411	0.0000	1.5411			0.0000			0.0000
Off-Road	2.3291	26.6405	11.7128	0.0275		1.1373	1.1373		1.0463	1.0463	0.0000	2,665.7094	2,665.7094	0.8621		2,687.2630
Total	2.3291	26.6405	11.7128	0.0275	3.1872	1.1373	4.3244	1.5411	1.0463	2.5874	0.0000	2,665.7094	2,665.7094	0.8621		2,687.2630

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.13 Electric Distribution - Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	6.4800e-003	0.2214	0.0490	6.3000e-004	0.0140	8.3000e-004	0.0148	3.8200e-003	8.0000e-004	4.6200e-003		67.1360	67.1360	2.6500e-003		67.2022
Vendor	0.0383	1.1324	0.3217	2.7700e-003	0.0677	3.5800e-003	0.0712	0.0195	3.4200e-003	0.0229		291.3079	291.3079	0.0139		291.6551
Worker	0.0621	0.0559	0.4805	1.1300e-003	0.1150	9.6000e-004	0.1160	0.0305	8.9000e-004	0.0314		112.0804	112.0804	4.4800e-003		112.1926
Total	0.1068	1.4097	0.8512	4.5300e-003	0.1966	5.3700e-003	0.2020	0.0538	5.1100e-003	0.0589		470.5244	470.5244	0.0210		471.0499

3.14 Electric Distribution - Above Ground - 2021

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	1.3492	13.6759	15.1109	0.0229		0.7135	0.7135		0.6565	0.6565		2,213.9040	2,213.9040	0.7160		2,231.8045
Total	1.3492	13.6759	15.1109	0.0229		0.7135	0.7135		0.6565	0.6565		2,213.9040	2,213.9040	0.7160		2,231.8045

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.14 Electric Distribution - Above Ground - 2021

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	2.9000e-004	9.8800e-003	2.1900e-003	3.0000e-005	6.2000e-004	4.0000e-005	6.6000e-004	1.7000e-004	4.0000e-005	2.1000e-004		2.9971	2.9971	1.2000e-004		3.0001
Vendor	0.0383	1.1324	0.3217	2.7700e-003	0.0677	3.5800e-003	0.0712	0.0195	3.4200e-003	0.0229		291.3079	291.3079	0.0139		291.6551
Worker	0.1330	0.1199	1.0296	2.4100e-003	0.2464	2.0600e-003	0.2485	0.0654	1.9000e-003	0.0673		240.1724	240.1724	9.6100e-003		240.4126
Total	0.1716	1.2621	1.3535	5.2100e-003	0.3147	5.6800e-003	0.3204	0.0850	5.3600e-003	0.0904		534.4774	534.4774	0.0236		535.0678

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	1.3492	13.6759	15.1109	0.0229		0.7135	0.7135		0.6565	0.6565	0.0000	2,213.9040	2,213.9040	0.7160		2,231.8045
Total	1.3492	13.6759	15.1109	0.0229		0.7135	0.7135		0.6565	0.6565	0.0000	2,213.9040	2,213.9040	0.7160		2,231.8045

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.14 Electric Distribution - Above Ground - 2021

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	2.9000e-004	9.8800e-003	2.1900e-003	3.0000e-005	6.2000e-004	4.0000e-005	6.6000e-004	1.7000e-004	4.0000e-005	2.1000e-004		2.9971	2.9971	1.2000e-004		3.0001
Vendor	0.0383	1.1324	0.3217	2.7700e-003	0.0677	3.5800e-003	0.0712	0.0195	3.4200e-003	0.0229		291.3079	291.3079	0.0139		291.6551
Worker	0.1330	0.1199	1.0296	2.4100e-003	0.2464	2.0600e-003	0.2485	0.0654	1.9000e-003	0.0673		240.1724	240.1724	9.6100e-003		240.4126
Total	0.1716	1.2621	1.3535	5.2100e-003	0.3147	5.6800e-003	0.3204	0.0850	5.3600e-003	0.0904		534.4774	534.4774	0.0236		535.0678

3.15 Arch Coating - Bodega Road - 2021

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					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.15 Arch Coating - Bodega Road - 2021

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	7.6600e-003	0.2265	0.0644	5.5000e-004	0.0135	7.2000e-004	0.0143	3.8900e-003	6.8000e-004	4.5800e-003		58.2616	58.2616	2.7800e-003		58.3310
Worker	0.0621	0.0559	0.4805	1.1300e-003	0.1150	9.6000e-004	0.1160	0.0305	8.9000e-004	0.0314		112.0804	112.0804	4.4800e-003		112.1926
Total	0.0697	0.2824	0.5448	1.6800e-003	0.1285	1.6800e-003	0.1302	0.0344	1.5700e-003	0.0360		170.3420	170.3420	7.2600e-003		170.5236

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					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.15 Arch Coating - Bodega Road - 2021

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	7.6600e-003	0.2265	0.0644	5.5000e-004	0.0135	7.2000e-004	0.0143	3.8900e-003	6.8000e-004	4.5800e-003		58.2616	58.2616	2.7800e-003		58.3310
Worker	0.0621	0.0559	0.4805	1.1300e-003	0.1150	9.6000e-004	0.1160	0.0305	8.9000e-004	0.0314		112.0804	112.0804	4.4800e-003		112.1926
Total	0.0697	0.2824	0.5448	1.6800e-003	0.1285	1.6800e-003	0.1302	0.0344	1.5700e-003	0.0360		170.3420	170.3420	7.2600e-003		170.5236

3.16 Solar - Testing and Restoration - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.5285	6.9281	3.1571	8.6900e-003		0.2285	0.2285		0.2102	0.2102		841.8825	841.8825	0.2723		848.6895
Total	0.5285	6.9281	3.1571	8.6900e-003	0.5303	0.2285	0.7588	0.0573	0.2102	0.2675		841.8825	841.8825	0.2723		848.6895

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.16 Solar - Testing and Restoration - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.4100e-003	0.0481	0.0107	1.4000e-004	0.1054	1.8000e-004	0.1056	0.0110	1.7000e-004	0.0112		14.5948	14.5948	5.8000e-004		14.6092
Vendor	0.0383	1.1324	0.3217	2.7700e-003	2.2153	3.5800e-003	2.2189	0.2336	3.4200e-003	0.2371		291.3079	291.3079	0.0139		291.6551
Worker	0.0709	0.0639	0.5491	1.2900e-003	0.1314	1.1000e-003	0.1325	0.0349	1.0100e-003	0.0359		128.0919	128.0919	5.1300e-003		128.2201
Total	0.1106	1.2444	0.8815	4.2000e-003	2.4521	4.8600e-003	2.4570	0.2795	4.6000e-003	0.2842		433.9946	433.9946	0.0196		434.4843

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2386	0.0000	0.2386	0.0258	0.0000	0.0258			0.0000			0.0000
Off-Road	0.5285	6.9281	3.1571	8.6900e-003		0.2285	0.2285		0.2102	0.2102	0.0000	841.8825	841.8825	0.2723		848.6895
Total	0.5285	6.9281	3.1571	8.6900e-003	0.2386	0.2285	0.4671	0.0258	0.2102	0.2360	0.0000	841.8825	841.8825	0.2723		848.6895

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.16 Solar - Testing and Restoration - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.4100e-003	0.0481	0.0107	1.4000e-004	0.1054	1.8000e-004	0.1056	0.0110	1.7000e-004	0.0112		14.5948	14.5948	5.8000e-004		14.6092
Vendor	0.0383	1.1324	0.3217	2.7700e-003	2.2153	3.5800e-003	2.2189	0.2336	3.4200e-003	0.2371		291.3079	291.3079	0.0139		291.6551
Worker	0.0709	0.0639	0.5491	1.2900e-003	0.1314	1.1000e-003	0.1325	0.0349	1.0100e-003	0.0359		128.0919	128.0919	5.1300e-003		128.2201
Total	0.1106	1.2444	0.8815	4.2000e-003	2.4521	4.8600e-003	2.4570	0.2795	4.6000e-003	0.2842		433.9946	433.9946	0.0196		434.4843

3.17 Gen-Tie - Site Preparation - 2021

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					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	2.3291	26.6405	11.7128	0.0275		1.1373	1.1373		1.0463	1.0463		2,665.7094	2,665.7094	0.8621		2,687.2630
Total	2.3291	26.6405	11.7128	0.0275	7.0826	1.1373	8.2198	3.4247	1.0463	4.4710		2,665.7094	2,665.7094	0.8621		2,687.2630

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.17 Gen-Tie - Site Preparation - 2021

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	7.6600e-003	0.2265	0.0644	5.5000e-004	0.0135	7.2000e-004	0.0143	3.8900e-003	6.8000e-004	4.5800e-003		58.2616	58.2616	2.7800e-003		58.3310
Worker	0.0355	0.0320	0.2746	6.4000e-004	0.0657	5.5000e-004	0.0663	0.0174	5.1000e-004	0.0179		64.0460	64.0460	2.5600e-003		64.1100
Total	0.0431	0.2584	0.3389	1.1900e-003	0.0793	1.2700e-003	0.0805	0.0213	1.1900e-003	0.0225		122.3076	122.3076	5.3400e-003		122.4411

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					3.1872	0.0000	3.1872	1.5411	0.0000	1.5411			0.0000			0.0000
Off-Road	2.3291	26.6405	11.7128	0.0275		1.1373	1.1373		1.0463	1.0463	0.0000	2,665.7094	2,665.7094	0.8621		2,687.2630
Total	2.3291	26.6405	11.7128	0.0275	3.1872	1.1373	4.3244	1.5411	1.0463	2.5874	0.0000	2,665.7094	2,665.7094	0.8621		2,687.2630

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.17 Gen-Tie - Site Preparation - 2021

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	7.6600e-003	0.2265	0.0644	5.5000e-004	0.0135	7.2000e-004	0.0143	3.8900e-003	6.8000e-004	4.5800e-003		58.2616	58.2616	2.7800e-003		58.3310
Worker	0.0355	0.0320	0.2746	6.4000e-004	0.0657	5.5000e-004	0.0663	0.0174	5.1000e-004	0.0179		64.0460	64.0460	2.5600e-003		64.1100
Total	0.0431	0.2584	0.3389	1.1900e-003	0.0793	1.2700e-003	0.0805	0.0213	1.1900e-003	0.0225		122.3076	122.3076	5.3400e-003		122.4411

3.17 Gen-Tie - Site Preparation - 2022

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					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.9981	22.7104	11.1238	0.0275		0.9414	0.9414		0.8661	0.8661		2,664.9360	2,664.9360	0.8619		2,686.4834
Total	1.9981	22.7104	11.1238	0.0275	7.0826	0.9414	8.0240	3.4247	0.8661	4.2908		2,664.9360	2,664.9360	0.8619		2,686.4834

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.17 Gen-Tie - Site Preparation - 2022

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	7.0200e-003	0.2142	0.0584	5.5000e-004	0.0135	6.2000e-004	0.0142	3.8900e-003	6.0000e-004	4.4900e-003		57.7585	57.7585	2.6900e-003		57.8258
Worker	0.0329	0.0286	0.2500	6.2000e-004	0.0657	5.3000e-004	0.0663	0.0174	4.9000e-004	0.0179		61.7923	61.7923	2.2900e-003		61.8495
Total	0.0399	0.2428	0.3084	1.1700e-003	0.0793	1.1500e-003	0.0804	0.0213	1.0900e-003	0.0224		119.5508	119.5508	4.9800e-003		119.6753

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					3.1872	0.0000	3.1872	1.5411	0.0000	1.5411			0.0000			0.0000
Off-Road	1.9981	22.7104	11.1238	0.0275		0.9414	0.9414		0.8661	0.8661	0.0000	2,664.9360	2,664.9360	0.8619		2,686.4834
Total	1.9981	22.7104	11.1238	0.0275	3.1872	0.9414	4.1285	1.5411	0.8661	2.4072	0.0000	2,664.9360	2,664.9360	0.8619		2,686.4834

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.17 Gen-Tie - Site Preparation - 2022

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	7.0200e-003	0.2142	0.0584	5.5000e-004	0.0135	6.2000e-004	0.0142	3.8900e-003	6.0000e-004	4.4900e-003		57.7585	57.7585	2.6900e-003		57.8258
Worker	0.0329	0.0286	0.2500	6.2000e-004	0.0657	5.3000e-004	0.0663	0.0174	4.9000e-004	0.0179		61.7923	61.7923	2.2900e-003		61.8495
Total	0.0399	0.2428	0.3084	1.1700e-003	0.0793	1.1500e-003	0.0804	0.0213	1.0900e-003	0.0224		119.5508	119.5508	4.9800e-003		119.6753

3.18 Electric Distribution - Site Clean Up - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.8884	8.9699	11.7314	0.0179		0.4662	0.4662		0.4289	0.4289		1,729.3552	1,729.3552	0.5593		1,743.3379
Total	0.8884	8.9699	11.7314	0.0179	0.0000	0.4662	0.4662	0.0000	0.4289	0.4289		1,729.3552	1,729.3552	0.5593		1,743.3379

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.18 Electric Distribution - Site Clean Up - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.5100e-003	0.0506	0.0117	1.6000e-004	3.4900e-003	1.8000e-004	3.6700e-003	9.6000e-004	1.7000e-004	1.1300e-003		16.5760	16.5760	6.5000e-004		16.5923
Vendor	7.0200e-003	0.2142	0.0584	5.5000e-004	0.0135	6.2000e-004	0.0142	3.8900e-003	6.0000e-004	4.4900e-003		57.7585	57.7585	2.6900e-003		57.8258
Worker	0.0576	0.0501	0.4375	1.0900e-003	0.1150	9.3000e-004	0.1159	0.0305	8.5000e-004	0.0314		108.1365	108.1365	4.0000e-003		108.2365
Total	0.0661	0.3148	0.5076	1.8000e-003	0.1320	1.7300e-003	0.1338	0.0354	1.6200e-003	0.0370		182.4710	182.4710	7.3400e-003		182.6547

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.8884	8.9699	11.7314	0.0179		0.4662	0.4662		0.4289	0.4289	0.0000	1,729.3552	1,729.3552	0.5593		1,743.3379
Total	0.8884	8.9699	11.7314	0.0179	0.0000	0.4662	0.4662	0.0000	0.4289	0.4289	0.0000	1,729.3552	1,729.3552	0.5593		1,743.3379

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.18 Electric Distribution - Site Clean Up - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.5100e-003	0.0506	0.0117	1.6000e-004	3.4900e-003	1.8000e-004	3.6700e-003	9.6000e-004	1.7000e-004	1.1300e-003		16.5760	16.5760	6.5000e-004		16.5923
Vendor	7.0200e-003	0.2142	0.0584	5.5000e-004	0.0135	6.2000e-004	0.0142	3.8900e-003	6.0000e-004	4.4900e-003		57.7585	57.7585	2.6900e-003		57.8258
Worker	0.0576	0.0501	0.4375	1.0900e-003	0.1150	9.3000e-004	0.1159	0.0305	8.5000e-004	0.0314		108.1365	108.1365	4.0000e-003		108.2365
Total	0.0661	0.3148	0.5076	1.8000e-003	0.1320	1.7300e-003	0.1338	0.0354	1.6200e-003	0.0370		182.4710	182.4710	7.3400e-003		182.6547

3.19 Gen-Tie - Above Ground Work - 2022

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	1.1994	11.8387	14.9907	0.0229		0.6065	0.6065		0.5580	0.5580		2,213.7450	2,213.7450	0.7160		2,231.6443
Total	1.1994	11.8387	14.9907	0.0229		0.6065	0.6065		0.5580	0.5580		2,213.7450	2,213.7450	0.7160		2,231.6443

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.19 Gen-Tie - Above Ground Work - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.6000e-004	0.0187	4.3200e-003	6.0000e-005	1.2900e-003	7.0000e-005	1.3600e-003	3.5000e-004	6.0000e-005	4.2000e-004		6.1393	6.1393	2.4000e-004		6.1453
Vendor	0.0140	0.4283	0.1168	1.1000e-003	0.0271	1.2500e-003	0.0283	7.7900e-003	1.1900e-003	8.9800e-003		115.5170	115.5170	5.3800e-003		115.6516
Worker	0.1069	0.0931	0.8125	2.0200e-003	0.2136	1.7200e-003	0.2153	0.0567	1.5800e-003	0.0582		200.8249	200.8249	7.4300e-003		201.0107
Total	0.1215	0.5401	0.9336	3.1800e-003	0.2419	3.0400e-003	0.2450	0.0648	2.8300e-003	0.0676		322.4812	322.4812	0.0131		322.8076

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	1.1994	11.8387	14.9907	0.0229		0.6065	0.6065		0.5580	0.5580	0.0000	2,213.7450	2,213.7450	0.7160		2,231.6443
Total	1.1994	11.8387	14.9907	0.0229		0.6065	0.6065		0.5580	0.5580	0.0000	2,213.7450	2,213.7450	0.7160		2,231.6443

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.19 Gen-Tie - Above Ground Work - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.6000e-004	0.0187	4.3200e-003	6.0000e-005	1.2900e-003	7.0000e-005	1.3600e-003	3.5000e-004	6.0000e-005	4.2000e-004		6.1393	6.1393	2.4000e-004		6.1453
Vendor	0.0140	0.4283	0.1168	1.1000e-003	0.0271	1.2500e-003	0.0283	7.7900e-003	1.1900e-003	8.9800e-003		115.5170	115.5170	5.3800e-003		115.6516
Worker	0.1069	0.0931	0.8125	2.0200e-003	0.2136	1.7200e-003	0.2153	0.0567	1.5800e-003	0.0582		200.8249	200.8249	7.4300e-003		201.0107
Total	0.1215	0.5401	0.9336	3.1800e-003	0.2419	3.0400e-003	0.2450	0.0648	2.8300e-003	0.0676		322.4812	322.4812	0.0131		322.8076

3.20 Paving - Powerhouse + BESS - 2022

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	0.6469	5.9174	7.0348	0.0113		0.2961	0.2961		0.2758	0.2758		1,035.8246	1,035.8246	0.3017		1,043.3677
Paving	0.8602					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.5072	5.9174	7.0348	0.0113		0.2961	0.2961		0.2758	0.2758		1,035.8246	1,035.8246	0.3017		1,043.3677

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.20 Paving - Powerhouse + BESS - 2022

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	0.0140	0.4283	0.1168	1.1000e-003	0.0271	1.2500e-003	0.0283	7.7900e-003	1.1900e-003	8.9800e-003		115.5170	115.5170	5.3800e-003		115.6516
Worker	0.0740	0.0644	0.5625	1.4000e-003	0.1479	1.1900e-003	0.1491	0.0392	1.1000e-003	0.0403		139.0326	139.0326	5.1500e-003		139.1613
Total	0.0881	0.4928	0.6793	2.5000e-003	0.1749	2.4400e-003	0.1774	0.0470	2.2900e-003	0.0493		254.5496	254.5496	0.0105		254.8129

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	0.6469	5.9174	7.0348	0.0113		0.2961	0.2961		0.2758	0.2758	0.0000	1,035.8246	1,035.8246	0.3017		1,043.3677
Paving	0.8602					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.5072	5.9174	7.0348	0.0113		0.2961	0.2961		0.2758	0.2758	0.0000	1,035.8246	1,035.8246	0.3017		1,043.3677

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.20 Paving - Powerhouse + BESS - 2022

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	0.0140	0.4283	0.1168	1.1000e-003	0.0271	1.2500e-003	0.0283	7.7900e-003	1.1900e-003	8.9800e-003		115.5170	115.5170	5.3800e-003		115.6516
Worker	0.0740	0.0644	0.5625	1.4000e-003	0.1479	1.1900e-003	0.1491	0.0392	1.1000e-003	0.0403		139.0326	139.0326	5.1500e-003		139.1613
Total	0.0881	0.4928	0.6793	2.5000e-003	0.1749	2.4400e-003	0.1774	0.0470	2.2900e-003	0.0493		254.5496	254.5496	0.0105		254.8129

3.21 Arch Coating - Powerhouse + BESS - 2022

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					
Archit. Coating	36.6397					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	36.8442	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.21 Arch Coating - Powerhouse + BESS - 2022

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	7.0200e-003	0.2142	0.0584	5.5000e-004	0.0135	6.2000e-004	0.0142	3.8900e-003	6.0000e-004	4.4900e-003		57.7585	57.7585	2.6900e-003		57.8258
Worker	0.0165	0.0143	0.1250	3.1000e-004	0.0329	2.6000e-004	0.0331	8.7200e-003	2.4000e-004	8.9600e-003		30.8961	30.8961	1.1400e-003		30.9247
Total	0.0235	0.2285	0.1834	8.6000e-004	0.0464	8.8000e-004	0.0473	0.0126	8.4000e-004	0.0135		88.6546	88.6546	3.8300e-003		88.7505

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					
Archit. Coating	36.6397					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	36.8442	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.21 Arch Coating - Powerhouse + BESS - 2022

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	7.0200e-003	0.2142	0.0584	5.5000e-004	0.0135	6.2000e-004	0.0142	3.8900e-003	6.0000e-004	4.4900e-003		57.7585	57.7585	2.6900e-003		57.8258
Worker	0.0165	0.0143	0.1250	3.1000e-004	0.0329	2.6000e-004	0.0331	8.7200e-003	2.4000e-004	8.9600e-003		30.8961	30.8961	1.1400e-003		30.9247
Total	0.0235	0.2285	0.1834	8.6000e-004	0.0464	8.8000e-004	0.0473	0.0126	8.4000e-004	0.0135		88.6546	88.6546	3.8300e-003		88.7505

3.22 Gen-Tie - Interconnection Construction - 2022

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	0.9845	10.7058	8.1338	0.0184		0.4438	0.4438		0.4083	0.4083		1,780.2958	1,780.2958	0.5758		1,794.6904
Total	0.9845	10.7058	8.1338	0.0184		0.4438	0.4438		0.4083	0.4083		1,780.2958	1,780.2958	0.5758		1,794.6904

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.22 Gen-Tie - Interconnection Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	6.9000e-004	0.0230	5.3000e-003	7.0000e-005	1.5900e-003	8.0000e-005	1.6700e-003	4.3000e-004	8.0000e-005	5.1000e-004		7.5346	7.5346	3.0000e-004		7.5420
Vendor	7.0200e-003	0.2142	0.0584	5.5000e-004	0.0135	6.2000e-004	0.0142	3.8900e-003	6.0000e-004	4.4900e-003		57.7585	57.7585	2.6900e-003		57.8258
Worker	0.0576	0.0501	0.4375	1.0900e-003	0.1150	9.3000e-004	0.1159	0.0305	8.5000e-004	0.0314		108.1365	108.1365	4.0000e-003		108.2365
Total	0.0653	0.2873	0.5012	1.7100e-003	0.1301	1.6300e-003	0.1318	0.0348	1.5300e-003	0.0364		173.4295	173.4295	6.9900e-003		173.6043

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	0.9845	10.7058	8.1338	0.0184		0.4438	0.4438		0.4083	0.4083	0.0000	1,780.2958	1,780.2958	0.5758		1,794.6904
Total	0.9845	10.7058	8.1338	0.0184		0.4438	0.4438		0.4083	0.4083	0.0000	1,780.2958	1,780.2958	0.5758		1,794.6904

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.22 Gen-Tie - Interconnection Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	6.9000e-004	0.0230	5.3000e-003	7.0000e-005	1.5900e-003	8.0000e-005	1.6700e-003	4.3000e-004	8.0000e-005	5.1000e-004		7.5346	7.5346	3.0000e-004		7.5420
Vendor	7.0200e-003	0.2142	0.0584	5.5000e-004	0.0135	6.2000e-004	0.0142	3.8900e-003	6.0000e-004	4.4900e-003		57.7585	57.7585	2.6900e-003		57.8258
Worker	0.0576	0.0501	0.4375	1.0900e-003	0.1150	9.3000e-004	0.1159	0.0305	8.5000e-004	0.0314		108.1365	108.1365	4.0000e-003		108.2365
Total	0.0653	0.2873	0.5012	1.7100e-003	0.1301	1.6300e-003	0.1318	0.0348	1.5300e-003	0.0364		173.4295	173.4295	6.9900e-003		173.6043

3.23 Arch Coating - Electric Distribution - 2022

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					
Archit. Coating	0.8343					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	1.0388	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.23 Arch Coating - Electric Distribution - 2022

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	0.0658	0.0573	0.5000	1.2400e-003	0.1314	1.0600e-003	0.1325	0.0349	9.8000e-004	0.0358		123.5846	123.5846	4.5700e-003		123.6989
Total	0.0658	0.0573	0.5000	1.2400e-003	0.1314	1.0600e-003	0.1325	0.0349	9.8000e-004	0.0358		123.5846	123.5846	4.5700e-003		123.6989

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					
Archit. Coating	0.8343					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	1.0388	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.23 Arch Coating - Electric Distribution - 2022

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	0.0658	0.0573	0.5000	1.2400e-003	0.1314	1.0600e-003	0.1325	0.0349	9.8000e-004	0.0358		123.5846	123.5846	4.5700e-003		123.6989
Total	0.0658	0.0573	0.5000	1.2400e-003	0.1314	1.0600e-003	0.1325	0.0349	9.8000e-004	0.0358		123.5846	123.5846	4.5700e-003		123.6989

3.24 Sub Transmission - Site Preparation - 2022

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					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.9981	22.7104	11.1238	0.0275		0.9414	0.9414		0.8661	0.8661		2,664.9360	2,664.9360	0.8619		2,686.4834
Total	1.9981	22.7104	11.1238	0.0275	7.0826	0.9414	8.0240	3.4247	0.8661	4.2908		2,664.9360	2,664.9360	0.8619		2,686.4834

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.24 Sub Transmission - Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.5100e-003	0.0506	0.0117	1.6000e-004	3.4900e-003	1.8000e-004	3.6700e-003	9.6000e-004	1.7000e-004	1.1300e-003		16.5760	16.5760	6.5000e-004		16.5923
Vendor	0.0211	0.6425	0.1751	1.6500e-003	0.0406	1.8700e-003	0.0425	0.0117	1.7900e-003	0.0135		173.2755	173.2755	8.0800e-003		173.4774
Worker	0.0329	0.0286	0.2500	6.2000e-004	0.0657	5.3000e-004	0.0663	0.0174	4.9000e-004	0.0179		61.7923	61.7923	2.2900e-003		61.8495
Total	0.0555	0.7217	0.4368	2.4300e-003	0.1098	2.5800e-003	0.1124	0.0301	2.4500e-003	0.0325		251.6438	251.6438	0.0110		251.9192

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					3.1872	0.0000	3.1872	1.5411	0.0000	1.5411			0.0000			0.0000
Off-Road	1.9981	22.7104	11.1238	0.0275		0.9414	0.9414		0.8661	0.8661	0.0000	2,664.9360	2,664.9360	0.8619		2,686.4834
Total	1.9981	22.7104	11.1238	0.0275	3.1872	0.9414	4.1285	1.5411	0.8661	2.4072	0.0000	2,664.9360	2,664.9360	0.8619		2,686.4834

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.24 Sub Transmission - Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.5100e-003	0.0506	0.0117	1.6000e-004	3.4900e-003	1.8000e-004	3.6700e-003	9.6000e-004	1.7000e-004	1.1300e-003		16.5760	16.5760	6.5000e-004		16.5923
Vendor	0.0211	0.6425	0.1751	1.6500e-003	0.0406	1.8700e-003	0.0425	0.0117	1.7900e-003	0.0135		173.2755	173.2755	8.0800e-003		173.4774
Worker	0.0329	0.0286	0.2500	6.2000e-004	0.0657	5.3000e-004	0.0663	0.0174	4.9000e-004	0.0179		61.7923	61.7923	2.2900e-003		61.8495
Total	0.0555	0.7217	0.4368	2.4300e-003	0.1098	2.5800e-003	0.1124	0.0301	2.4500e-003	0.0325		251.6438	251.6438	0.0110		251.9192

3.25 Sub Transmission - Below Ground - 2022

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	1.1994	11.8387	14.9907	0.0229		0.6065	0.6065		0.5580	0.5580		2,213.7450	2,213.7450	0.7160		2,231.6443
Total	1.1994	11.8387	14.9907	0.0229		0.6065	0.6065		0.5580	0.5580		2,213.7450	2,213.7450	0.7160		2,231.6443

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.25 Sub Transmission - Below Ground - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.9000e-004	0.0130	2.9900e-003	4.0000e-005	8.9000e-004	5.0000e-005	9.4000e-004	2.5000e-004	4.0000e-005	2.9000e-004		4.2503	4.2503	1.7000e-004		4.2544
Vendor	0.0140	0.4283	0.1168	1.1000e-003	0.0271	1.2500e-003	0.0283	7.7900e-003	1.1900e-003	8.9800e-003		115.5170	115.5170	5.3800e-003		115.6516
Worker	0.1069	0.0931	0.8125	2.0200e-003	0.2136	1.7200e-003	0.2153	0.0567	1.5800e-003	0.0582		200.8249	200.8249	7.4300e-003		201.0107
Total	0.1213	0.5344	0.9323	3.1600e-003	0.2415	3.0200e-003	0.2446	0.0647	2.8100e-003	0.0675		320.5921	320.5921	0.0130		320.9167

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	1.1994	11.8387	14.9907	0.0229		0.6065	0.6065		0.5580	0.5580	0.0000	2,213.7450	2,213.7450	0.7160		2,231.6443
Total	1.1994	11.8387	14.9907	0.0229		0.6065	0.6065		0.5580	0.5580	0.0000	2,213.7450	2,213.7450	0.7160		2,231.6443

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.25 Sub Transmission - Below Ground - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.9000e-004	0.0130	2.9900e-003	4.0000e-005	8.9000e-004	5.0000e-005	9.4000e-004	2.5000e-004	4.0000e-005	2.9000e-004		4.2503	4.2503	1.7000e-004		4.2544
Vendor	0.0140	0.4283	0.1168	1.1000e-003	0.0271	1.2500e-003	0.0283	7.7900e-003	1.1900e-003	8.9800e-003		115.5170	115.5170	5.3800e-003		115.6516
Worker	0.1069	0.0931	0.8125	2.0200e-003	0.2136	1.7200e-003	0.2153	0.0567	1.5800e-003	0.0582		200.8249	200.8249	7.4300e-003		201.0107
Total	0.1213	0.5344	0.9323	3.1600e-003	0.2415	3.0200e-003	0.2446	0.0647	2.8100e-003	0.0675		320.5921	320.5921	0.0130		320.9167

3.26 Sub Transmission - System Installation - 2022

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	0.9845	10.7058	8.1338	0.0184		0.4438	0.4438		0.4083	0.4083		1,780.2958	1,780.2958	0.5758		1,794.6904
Total	0.9845	10.7058	8.1338	0.0184		0.4438	0.4438		0.4083	0.4083		1,780.2958	1,780.2958	0.5758		1,794.6904

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.26 Sub Transmission - System Installation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.4200e-003	0.0474	0.0109	1.5000e-004	3.2700e-003	1.7000e-004	3.4400e-003	9.0000e-004	1.6000e-004	1.0600e-003		15.5400	15.5400	6.1000e-004		15.5553
Vendor	0.0281	0.8566	0.2335	2.2000e-003	0.0541	2.5000e-003	0.0566	0.0156	2.3900e-003	0.0180		231.0340	231.0340	0.0108		231.3032
Worker	0.0658	0.0573	0.5000	1.2400e-003	0.1314	1.0600e-003	0.1325	0.0349	9.8000e-004	0.0358		123.5846	123.5846	4.5700e-003		123.6989
Total	0.0953	0.9613	0.7445	3.5900e-003	0.1888	3.7300e-003	0.1926	0.0513	3.5300e-003	0.0549		370.1586	370.1586	0.0160		370.5574

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	0.9845	10.7058	8.1338	0.0184		0.4438	0.4438		0.4083	0.4083	0.0000	1,780.2958	1,780.2958	0.5758		1,794.6904
Total	0.9845	10.7058	8.1338	0.0184		0.4438	0.4438		0.4083	0.4083	0.0000	1,780.2958	1,780.2958	0.5758		1,794.6904

Gonzales Microgrid Construction Analysis - Monterey County, Winter

3.26 Sub Transmission - System Installation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.4200e-003	0.0474	0.0109	1.5000e-004	3.2700e-003	1.7000e-004	3.4400e-003	9.0000e-004	1.6000e-004	1.0600e-003		15.5400	15.5400	6.1000e-004		15.5553
Vendor	0.0281	0.8566	0.2335	2.2000e-003	0.0541	2.5000e-003	0.0566	0.0156	2.3900e-003	0.0180		231.0340	231.0340	0.0108		231.3032
Worker	0.0658	0.0573	0.5000	1.2400e-003	0.1314	1.0600e-003	0.1325	0.0349	9.8000e-004	0.0358		123.5846	123.5846	4.5700e-003		123.6989
Total	0.0953	0.9613	0.7445	3.5900e-003	0.1888	3.7300e-003	0.1926	0.0513	3.5300e-003	0.0549		370.1586	370.1586	0.0160		370.5574

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Gonzales Microgrid Construction Analysis - Monterey County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Gonzales Microgrid Construction Analysis - Monterey County, Winter

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.543895	0.028716	0.205211	0.131753	0.021859	0.005504	0.019097	0.027308	0.004155	0.002738	0.007724	0.001236	0.000805
Other Asphalt Surfaces	0.543895	0.028716	0.205211	0.131753	0.021859	0.005504	0.019097	0.027308	0.004155	0.002738	0.007724	0.001236	0.000805
Parking Lot	0.543895	0.028716	0.205211	0.131753	0.021859	0.005504	0.019097	0.027308	0.004155	0.002738	0.007724	0.001236	0.000805

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	lb/day										lb/day					
NaturalGas Mitigated	0.0117	0.1063	0.0893	6.4000e-004		8.0800e-003	8.0800e-003		8.0800e-003	8.0800e-003		127.5423	127.5423	2.4400e-003	2.3400e-003	128.3002
NaturalGas Unmitigated	0.0117	0.1063	0.0893	6.4000e-004		8.0800e-003	8.0800e-003		8.0800e-003	8.0800e-003		127.5423	127.5423	2.4400e-003	2.3400e-003	128.3002

Gonzales Microgrid Construction Analysis - Monterey County, Winter

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	1084.11	0.0117	0.1063	0.0893	6.4000e-004		8.0800e-003	8.0800e-003		8.0800e-003	8.0800e-003		127.5423	127.5423	2.4400e-003	2.3400e-003	128.3002
Other 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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0117	0.1063	0.0893	6.4000e-004		8.0800e-003	8.0800e-003		8.0800e-003	8.0800e-003		127.5423	127.5423	2.4400e-003	2.3400e-003	128.3002

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	1.08411	0.0117	0.1063	0.0893	6.4000e-004		8.0800e-003	8.0800e-003		8.0800e-003	8.0800e-003		127.5423	127.5423	2.4400e-003	2.3400e-003	128.3002
Other 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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0117	0.1063	0.0893	6.4000e-004		8.0800e-003	8.0800e-003		8.0800e-003	8.0800e-003		127.5423	127.5423	2.4400e-003	2.3400e-003	128.3002

6.0 Area Detail

Gonzales Microgrid Construction Analysis - Monterey County, Winter

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	0.5188	3.0000e-005	2.7500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.8800e-003	5.8800e-003	2.0000e-005		6.2700e-003
Unmitigated	0.5188	3.0000e-005	2.7500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.8800e-003	5.8800e-003	2.0000e-005		6.2700e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1671					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3514					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.6000e-004	3.0000e-005	2.7500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.8800e-003	5.8800e-003	2.0000e-005		6.2700e-003
Total	0.5188	3.0000e-005	2.7500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.8800e-003	5.8800e-003	2.0000e-005		6.2700e-003

Gonzales Microgrid Construction Analysis - Monterey County, Winter

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1671					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3514					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.6000e-004	3.0000e-005	2.7500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.8800e-003	5.8800e-003	2.0000e-005		6.2700e-003
Total	0.5188	3.0000e-005	2.7500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.8800e-003	5.8800e-003	2.0000e-005		6.2700e-003

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

Gonzales Microgrid Construction Analysis - Monterey County, Winter

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

Gonzales Microgrid Operational Analysis - Monterey County, Annual

**Gonzales Microgrid Operational Analysis
Monterey County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	15.00	1000sqft	0.34	15,000.00	0
Parking Lot	10.00	Space	0.09	4,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.6	Precipitation Freq (Days)	55
Climate Zone	4			Operational Year	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	237.4	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Gonzales Microgrid Operational Analysis - Monterey County, Annual

Project Characteristics - PG&E CO2 intensity factor based on year 2019 from PG&E Corporate Responsibility and Sustainability Report 2020.

Land Use - Operational analysis only.

Construction Phase - Operational analysis only

Off-road Equipment - Operational analysis only.

Off-road Equipment - Operational analysis only.

Off-road Equipment - Operational analysis only.

Off-road Equipment - Operational analysis only.

Off-road Equipment - Operational analysis only.

Off-road Equipment - Operational analysis only.

Trips and VMT - Operational analysis only.

Demolition - Operational analysis only.

Grading - Operational analysis only.

Architectural Coating - Operational analysis only.

Vehicle Trips - Based on applicant provided information for vehicle trips.

Vehicle Emission Factors - Default

Vehicle Emission Factors -

Vehicle Emission Factors -

Road Dust - Default

Area Coating - Default

Landscape Equipment - Default

Energy Use - To take into account energy reductions associated with compliance with 2019 Title 24, the CalEEMod Title 24 electricity and natural gas values were reduced by 10.7% and 1%, respectively. CalEEMod default values for Non-Title 24 and Lighting.

Water And Wastewater - Default

Solid Waste - Default

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	0.00

Gonzales Microgrid Operational Analysis - Monterey County, Annual

tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	NumDays	2.00	0.00
tblConstructionPhase	NumDays	100.00	0.00
tblConstructionPhase	NumDays	5.00	0.00
tblConstructionPhase	NumDays	5.00	0.00
tblEnergyUse	T24E	1.48	1.32
tblEnergyUse	T24NG	19.71	19.51
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	237.4
tblTripsAndVMT	VendorTripNumber	3.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblTripsAndVMT	WorkerTripNumber	2.00	0.00

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tblVehicleTrips	ST_TR	1.32	1.87
tblVehicleTrips	SU_TR	0.68	1.87
tblVehicleTrips	WD_TR	6.97	1.87

2.0 Emissions Summary

Gonzales Microgrid Operational Analysis - Monterey County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

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	0.0694	0.0000	3.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.2000e-004	6.2000e-004	0.0000	0.0000	6.6000e-004
Energy	2.1200e-003	0.0193	0.0162	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003	0.0000	34.1902	34.1902	2.0200e-003	7.2000e-004	34.4548
Mobile	0.0104	0.0434	0.1242	3.8000e-004	0.0307	3.2000e-004	0.0310	8.2500e-003	3.0000e-004	8.5400e-003	0.0000	34.8150	34.8150	1.6300e-003	0.0000	34.8557
Waste						0.0000	0.0000		0.0000	0.0000	3.7756	0.0000	3.7756	0.2231	0.0000	9.3540
Water						0.0000	0.0000		0.0000	0.0000	1.1005	2.0211	3.1216	0.1133	2.7200e-003	6.7641
Total	0.0819	0.0627	0.1407	5.0000e-004	0.0307	1.7800e-003	0.0325	8.2500e-003	1.7600e-003	0.0100	4.8761	71.0270	75.9031	0.3401	3.4400e-003	85.4292

Gonzales Microgrid Operational Analysis - Monterey County, Annual

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0694	0.0000	3.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.2000e-004	6.2000e-004	0.0000	0.0000	6.6000e-004
Energy	2.1200e-003	0.0193	0.0162	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003	0.0000	34.1902	34.1902	2.0200e-003	7.2000e-004	34.4548
Mobile	0.0104	0.0434	0.1242	3.8000e-004	0.0307	3.2000e-004	0.0310	8.2500e-003	3.0000e-004	8.5400e-003	0.0000	34.8150	34.8150	1.6300e-003	0.0000	34.8557
Waste						0.0000	0.0000		0.0000	0.0000	3.7756	0.0000	3.7756	0.2231	0.0000	9.3540
Water						0.0000	0.0000		0.0000	0.0000	1.1005	2.0211	3.1216	0.1133	2.7200e-003	6.7641
Total	0.0819	0.0627	0.1407	5.0000e-004	0.0307	1.7800e-003	0.0325	8.2500e-003	1.7600e-003	0.0100	4.8761	71.0270	75.9031	0.3401	3.4400e-003	85.4292

	ROG	NOx	CO	SO2	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

Gonzales Microgrid Operational Analysis - Monterey County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	8/1/2021	7/30/2021	5	0	
2	Site Preparation	Site Preparation	8/28/2021	8/27/2021	5	0	
3	Grading	Grading	9/1/2021	8/31/2021	5	0	
4	Building Construction	Building Construction	9/7/2021	9/6/2021	5	0	
5	Paving	Paving	6/14/2022	6/13/2022	5	0	
6	Architectural Coating	Architectural Coating	6/28/2022	6/27/2022	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.09

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 22,500; Non-Residential Outdoor: 7,500; Striped Parking Area: 240 (Architectural Coating – sqft)

OffRoad Equipment

Gonzales Microgrid Operational Analysis - Monterey County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Rubber Tired Dozers	0	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Concrete/Industrial Saws	0	8.00	81	0.73
Grading	Rubber Tired Dozers	0	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Building Construction	Cranes	0	4.00	231	0.29
Building Construction	Forklifts	0	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Paving	Pavers	0	7.00	130	0.42
Paving	Rollers	0	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Architectural Coating	Air Compressors	0	6.00	78	0.48

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
Demolition	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Gonzales Microgrid Operational Analysis - Monterey County, Annual

3.7 Architectural Coating - 2022

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Gonzales Microgrid Operational Analysis - Monterey County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0104	0.0434	0.1242	3.8000e-004	0.0307	3.2000e-004	0.0310	8.2500e-003	3.0000e-004	8.5400e-003	0.0000	34.8150	34.8150	1.6300e-003	0.0000	34.8557
Unmitigated	0.0104	0.0434	0.1242	3.8000e-004	0.0307	3.2000e-004	0.0310	8.2500e-003	3.0000e-004	8.5400e-003	0.0000	34.8150	34.8150	1.6300e-003	0.0000	34.8557

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	28.05	28.05	28.05	81,892	81,892
Parking Lot	0.00	0.00	0.00		
Total	28.05	28.05	28.05	81,892	81,892

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
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.548528	0.027912	0.206330	0.127577	0.020437	0.005268	0.019586	0.027922	0.004162	0.002641	0.007642	0.001233	0.000761
Parking Lot	0.548528	0.027912	0.206330	0.127577	0.020437	0.005268	0.019586	0.027922	0.004162	0.002641	0.007642	0.001233	0.000761

Gonzales Microgrid Operational Analysis - Monterey County, Annual

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	13.2342	13.2342	1.6200e-003	3.3000e-004	13.3743
Electricity Unmitigated							0.0000	0.0000		0.0000	0.0000	0.0000	13.2342	13.2342	1.6200e-003	3.3000e-004	13.3743
NaturalGas Mitigated	2.1200e-003	0.0193	0.0162	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003	0.0000	20.9560	20.9560	4.0000e-004	3.8000e-004	21.0805	
NaturalGas Unmitigated	2.1200e-003	0.0193	0.0162	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003	0.0000	20.9560	20.9560	4.0000e-004	3.8000e-004	21.0805	

Gonzales Microgrid Operational Analysis - Monterey County, Annual

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	tons/yr										MT/yr					
General Light Industry	392700	2.1200e-003	0.0193	0.0162	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003	0.0000	20.9560	20.9560	4.0000e-004	3.8000e-004	21.0805
Parking Lot	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	0.0000
Total		2.1200e-003	0.0193	0.0162	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003	0.0000	20.9560	20.9560	4.0000e-004	3.8000e-004	21.0805

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	392700	2.1200e-003	0.0193	0.0162	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003	0.0000	20.9560	20.9560	4.0000e-004	3.8000e-004	21.0805
Parking Lot	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	0.0000
Total		2.1200e-003	0.0193	0.0162	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003	0.0000	20.9560	20.9560	4.0000e-004	3.8000e-004	21.0805

Gonzales Microgrid Operational Analysis - Monterey County, Annual

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	121500	13.0835	1.6000e-003	3.3000e-004	13.2220
Parking Lot	1400	0.1508	2.0000e-005	0.0000	0.1524
Total		13.2342	1.6200e-003	3.3000e-004	13.3743

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	121500	13.0835	1.6000e-003	3.3000e-004	13.2220
Parking Lot	1400	0.1508	2.0000e-005	0.0000	0.1524
Total		13.2342	1.6200e-003	3.3000e-004	13.3743

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	0.0694	0.0000	3.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.2000e-004	6.2000e-004	0.0000	0.0000	6.6000e-004
Unmitigated	0.0694	0.0000	3.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.2000e-004	6.2000e-004	0.0000	0.0000	6.6000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0105					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0588					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.0000e-005	0.0000	3.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.2000e-004	6.2000e-004	0.0000	0.0000	6.6000e-004
Total	0.0694	0.0000	3.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.2000e-004	6.2000e-004	0.0000	0.0000	6.6000e-004

Gonzales Microgrid Operational Analysis - Monterey County, Annual

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0105					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0588					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.0000e-005	0.0000	3.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.2000e-004	6.2000e-004	0.0000	0.0000	6.6000e-004
Total	0.0694	0.0000	3.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.2000e-004	6.2000e-004	0.0000	0.0000	6.6000e-004

7.0 Water Detail

7.1 Mitigation Measures Water

Gonzales Microgrid Operational Analysis - Monterey County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	3.1216	0.1133	2.7200e-003	6.7641
Unmitigated	3.1216	0.1133	2.7200e-003	6.7641

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	3.46875 / 0	3.1216	0.1133	2.7200e-003	6.7641
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		3.1216	0.1133	2.7200e-003	6.7641

Gonzales Microgrid Operational Analysis - Monterey County, Annual

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	3.46875 / 0	3.1216	0.1133	2.7200e-003	6.7641
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		3.1216	0.1133	2.7200e-003	6.7641

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	3.7756	0.2231	0.0000	9.3540
Unmitigated	3.7756	0.2231	0.0000	9.3540

Gonzales Microgrid Operational Analysis - Monterey County, Annual

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	18.6	3.7756	0.2231	0.0000	9.3540
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		3.7756	0.2231	0.0000	9.3540

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	18.6	3.7756	0.2231	0.0000	9.3540
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		3.7756	0.2231	0.0000	9.3540

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Gonzales Microgrid Operational Analysis - Monterey County, Annual

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

Gonzales Microgrid Operational Analysis - Monterey County, Summer

**Gonzales Microgrid Operational Analysis
Monterey County, Summer**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	15.00	1000sqft	0.34	15,000.00	0
Parking Lot	10.00	Space	0.09	4,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.6	Precipitation Freq (Days)	55
Climate Zone	4			Operational Year	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	237.4	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Gonzales Microgrid Operational Analysis - Monterey County, Summer

Project Characteristics - PG&E CO2 intensity factor based on year 2019 from PG&E Corporate Responsibility and Sustainability Report 2020.

Land Use - Operational analysis only.

Construction Phase - Operational analysis only

Off-road Equipment - Operational analysis only.

Off-road Equipment - Operational analysis only.

Off-road Equipment - Operational analysis only.

Off-road Equipment - Operational analysis only.

Off-road Equipment - Operational analysis only.

Off-road Equipment - Operational analysis only.

Trips and VMT - Operational analysis only.

Demolition - Operational analysis only.

Grading - Operational analysis only.

Architectural Coating - Operational analysis only.

Vehicle Trips - Based on applicant provided information for vehicle trips.

Vehicle Emission Factors - Default

Vehicle Emission Factors -

Vehicle Emission Factors -

Road Dust - Default

Area Coating - Default

Landscape Equipment - Default

Energy Use - To take into account energy reductions associated with compliance with 2019 Title 24, the CalEEMod Title 24 electricity and natural gas values were reduced by 10.7% and 1%, respectively. CalEEMod default values for Non-Title 24 and Lighting.

Water And Wastewater - Default

Solid Waste - Default

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	0.00

Gonzales Microgrid Operational Analysis - Monterey County, Summer

tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	NumDays	2.00	0.00
tblConstructionPhase	NumDays	100.00	0.00
tblConstructionPhase	NumDays	5.00	0.00
tblConstructionPhase	NumDays	5.00	0.00
tblEnergyUse	T24E	1.48	1.32
tblEnergyUse	T24NG	19.71	19.51
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	237.4
tblTripsAndVMT	VendorTripNumber	3.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblTripsAndVMT	WorkerTripNumber	2.00	0.00

Gonzales Microgrid Operational Analysis - Monterey County, Summer

tblVehicleTrips	ST_TR	1.32	1.87
tblVehicleTrips	SU_TR	0.68	1.87
tblVehicleTrips	WD_TR	6.97	1.87

2.0 Emissions Summary

Gonzales Microgrid Operational Analysis - Monterey County, Summer

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.3803	2.0000e-005	2.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.4700e-003	5.4700e-003	1.0000e-005		5.8300e-003
Energy	0.0116	0.1055	0.0886	6.3000e-004		8.0200e-003	8.0200e-003		8.0200e-003	8.0200e-003		126.5753	126.5753	2.4300e-003	2.3200e-003	127.3275
Mobile	0.0615	0.2280	0.7000	2.1900e-003	0.1743	1.7400e-003	0.1760	0.0467	1.6300e-003	0.0483		220.9629	220.9629	9.9600e-003		221.2120
Total	0.4533	0.3335	0.7911	2.8200e-003	0.1743	9.7700e-003	0.1841	0.0467	9.6600e-003	0.0563		347.5437	347.5437	0.0124	2.3200e-003	348.5453

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	0.3803	2.0000e-005	2.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.4700e-003	5.4700e-003	1.0000e-005		5.8300e-003
Energy	0.0116	0.1055	0.0886	6.3000e-004		8.0200e-003	8.0200e-003		8.0200e-003	8.0200e-003		126.5753	126.5753	2.4300e-003	2.3200e-003	127.3275
Mobile	0.0615	0.2280	0.7000	2.1900e-003	0.1743	1.7400e-003	0.1760	0.0467	1.6300e-003	0.0483		220.9629	220.9629	9.9600e-003		221.2120
Total	0.4533	0.3335	0.7911	2.8200e-003	0.1743	9.7700e-003	0.1841	0.0467	9.6600e-003	0.0563		347.5437	347.5437	0.0124	2.3200e-003	348.5453

Gonzales Microgrid Operational Analysis - Monterey County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
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	Demolition	Demolition	8/1/2021	7/30/2021	5	0	
2	Site Preparation	Site Preparation	8/28/2021	8/27/2021	5	0	
3	Grading	Grading	9/1/2021	8/31/2021	5	0	
4	Building Construction	Building Construction	9/7/2021	9/6/2021	5	0	
5	Paving	Paving	6/14/2022	6/13/2022	5	0	
6	Architectural Coating	Architectural Coating	6/28/2022	6/27/2022	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.09

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 22,500; Non-Residential Outdoor: 7,500; Striped Parking Area: 240 (Architectural Coating – sqft)

OffRoad Equipment

Gonzales Microgrid Operational Analysis - Monterey County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Rubber Tired Dozers	0	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Concrete/Industrial Saws	0	8.00	81	0.73
Grading	Rubber Tired Dozers	0	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Building Construction	Cranes	0	4.00	231	0.29
Building Construction	Forklifts	0	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Paving	Pavers	0	7.00	130	0.42
Paving	Rollers	0	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Architectural Coating	Air Compressors	0	6.00	78	0.48

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
Demolition	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Gonzales Microgrid Operational Analysis - Monterey County, Summer

3.7 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Gonzales Microgrid Operational Analysis - Monterey County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0615	0.2280	0.7000	2.1900e-003	0.1743	1.7400e-003	0.1760	0.0467	1.6300e-003	0.0483		220.9629	220.9629	9.9600e-003		221.2120
Unmitigated	0.0615	0.2280	0.7000	2.1900e-003	0.1743	1.7400e-003	0.1760	0.0467	1.6300e-003	0.0483		220.9629	220.9629	9.9600e-003		221.2120

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	28.05	28.05	28.05	81,892	81,892
Parking Lot	0.00	0.00	0.00		
Total	28.05	28.05	28.05	81,892	81,892

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
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.548528	0.027912	0.206330	0.127577	0.020437	0.005268	0.019586	0.027922	0.004162	0.002641	0.007642	0.001233	0.000761
Parking Lot	0.548528	0.027912	0.206330	0.127577	0.020437	0.005268	0.019586	0.027922	0.004162	0.002641	0.007642	0.001233	0.000761

Gonzales Microgrid Operational Analysis - Monterey County, Summer

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	lb/day										lb/day					
NaturalGas Mitigated	0.0116	0.1055	0.0886	6.3000e-004		8.0200e-003	8.0200e-003		8.0200e-003	8.0200e-003		126.5753	126.5753	2.4300e-003	2.3200e-003	127.3275
NaturalGas Unmitigated	0.0116	0.1055	0.0886	6.3000e-004		8.0200e-003	8.0200e-003		8.0200e-003	8.0200e-003		126.5753	126.5753	2.4300e-003	2.3200e-003	127.3275

Gonzales Microgrid Operational Analysis - Monterey County, Summer

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	1075.89	0.0116	0.1055	0.0886	6.3000e-004		8.0200e-003	8.0200e-003		8.0200e-003	8.0200e-003		126.5753	126.5753	2.4300e-003	2.3200e-003	127.3275
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0116	0.1055	0.0886	6.3000e-004		8.0200e-003	8.0200e-003		8.0200e-003	8.0200e-003		126.5753	126.5753	2.4300e-003	2.3200e-003	127.3275

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	1.07589	0.0116	0.1055	0.0886	6.3000e-004		8.0200e-003	8.0200e-003		8.0200e-003	8.0200e-003		126.5753	126.5753	2.4300e-003	2.3200e-003	127.3275
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0116	0.1055	0.0886	6.3000e-004		8.0200e-003	8.0200e-003		8.0200e-003	8.0200e-003		126.5753	126.5753	2.4300e-003	2.3200e-003	127.3275

6.0 Area Detail

6.1 Mitigation Measures Area

Gonzales Microgrid Operational Analysis - Monterey County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.3803	2.0000e-005	2.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.4700e-003	5.4700e-003	1.0000e-005		5.8300e-003
Unmitigated	0.3803	2.0000e-005	2.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.4700e-003	5.4700e-003	1.0000e-005		5.8300e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0576					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3224					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.4000e-004	2.0000e-005	2.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.4700e-003	5.4700e-003	1.0000e-005		5.8300e-003
Total	0.3803	2.0000e-005	2.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.4700e-003	5.4700e-003	1.0000e-005		5.8300e-003

Gonzales Microgrid Operational Analysis - Monterey County, Summer

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0576					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3224					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.4000e-004	2.0000e-005	2.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.4700e-003	5.4700e-003	1.0000e-005		5.8300e-003
Total	0.3803	2.0000e-005	2.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.4700e-003	5.4700e-003	1.0000e-005		5.8300e-003

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Gonzales Microgrid Operational Analysis - Monterey County, Summer

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

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

User Defined Equipment

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

11.0 Vegetation

Gonzales Microgrid Operational Analysis - Monterey County, Winter

**Gonzales Microgrid Operational Analysis
Monterey County, Winter**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	15.00	1000sqft	0.34	15,000.00	0
Parking Lot	10.00	Space	0.09	4,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.6	Precipitation Freq (Days)	55
Climate Zone	4			Operational Year	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	237.4	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Gonzales Microgrid Operational Analysis - Monterey County, Winter

Project Characteristics - PG&E CO2 intensity factor based on year 2019 from PG&E Corporate Responsibility and Sustainability Report 2020.

Land Use - Operational analysis only.

Construction Phase - Operational analysis only

Off-road Equipment - Operational analysis only.

Off-road Equipment - Operational analysis only.

Off-road Equipment - Operational analysis only.

Off-road Equipment - Operational analysis only.

Off-road Equipment - Operational analysis only.

Off-road Equipment - Operational analysis only.

Trips and VMT - Operational analysis only.

Demolition - Operational analysis only.

Grading - Operational analysis only.

Architectural Coating - Operational analysis only.

Vehicle Trips - Based on applicant provided information for vehicle trips.

Vehicle Emission Factors - Default

Vehicle Emission Factors -

Vehicle Emission Factors -

Road Dust - Default

Area Coating - Default

Landscape Equipment - Default

Energy Use - To take into account energy reductions associated with compliance with 2019 Title 24, the CalEEMod Title 24 electricity and natural gas values were reduced by 10.7% and 1%, respectively. CalEEMod default values for Non-Title 24 and Lighting.

Water And Wastewater - Default

Solid Waste - Default

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	0.00

Gonzales Microgrid Operational Analysis - Monterey County, Winter

tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	NumDays	2.00	0.00
tblConstructionPhase	NumDays	100.00	0.00
tblConstructionPhase	NumDays	5.00	0.00
tblConstructionPhase	NumDays	5.00	0.00
tblEnergyUse	T24E	1.48	1.32
tblEnergyUse	T24NG	19.71	19.51
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	237.4
tblTripsAndVMT	VendorTripNumber	3.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblTripsAndVMT	WorkerTripNumber	2.00	0.00

Gonzales Microgrid Operational Analysis - Monterey County, Winter

tblVehicleTrips	ST_TR	1.32	1.87
tblVehicleTrips	SU_TR	0.68	1.87
tblVehicleTrips	WD_TR	6.97	1.87

2.0 Emissions Summary

Gonzales Microgrid Operational Analysis - Monterey County, Winter

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.3803	2.0000e-005	2.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.4700e-003	5.4700e-003	1.0000e-005		5.8300e-003
Energy	0.0116	0.1055	0.0886	6.3000e-004		8.0200e-003	8.0200e-003		8.0200e-003	8.0200e-003		126.5753	126.5753	2.4300e-003	2.3200e-003	127.3275
Mobile	0.0569	0.2454	0.7175	2.0700e-003	0.1743	1.7500e-003	0.1761	0.0467	1.6300e-003	0.0483		209.4437	209.4437	0.0101		209.6949
Total	0.4488	0.3509	0.8087	2.7000e-003	0.1743	9.7800e-003	0.1841	0.0467	9.6600e-003	0.0563		336.0245	336.0245	0.0125	2.3200e-003	337.0282

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	0.3803	2.0000e-005	2.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.4700e-003	5.4700e-003	1.0000e-005		5.8300e-003
Energy	0.0116	0.1055	0.0886	6.3000e-004		8.0200e-003	8.0200e-003		8.0200e-003	8.0200e-003		126.5753	126.5753	2.4300e-003	2.3200e-003	127.3275
Mobile	0.0569	0.2454	0.7175	2.0700e-003	0.1743	1.7500e-003	0.1761	0.0467	1.6300e-003	0.0483		209.4437	209.4437	0.0101		209.6949
Total	0.4488	0.3509	0.8087	2.7000e-003	0.1743	9.7800e-003	0.1841	0.0467	9.6600e-003	0.0563		336.0245	336.0245	0.0125	2.3200e-003	337.0282

Gonzales Microgrid Operational Analysis - Monterey County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
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	Demolition	Demolition	8/1/2021	7/30/2021	5	0	
2	Site Preparation	Site Preparation	8/28/2021	8/27/2021	5	0	
3	Grading	Grading	9/1/2021	8/31/2021	5	0	
4	Building Construction	Building Construction	9/7/2021	9/6/2021	5	0	
5	Paving	Paving	6/14/2022	6/13/2022	5	0	
6	Architectural Coating	Architectural Coating	6/28/2022	6/27/2022	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.09

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 22,500; Non-Residential Outdoor: 7,500; Striped Parking Area: 240 (Architectural Coating – sqft)

OffRoad Equipment

Gonzales Microgrid Operational Analysis - Monterey County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Rubber Tired Dozers	0	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Concrete/Industrial Saws	0	8.00	81	0.73
Grading	Rubber Tired Dozers	0	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Building Construction	Cranes	0	4.00	231	0.29
Building Construction	Forklifts	0	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Paving	Pavers	0	7.00	130	0.42
Paving	Rollers	0	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Architectural Coating	Air Compressors	0	6.00	78	0.48

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
Demolition	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Gonzales Microgrid Operational Analysis - Monterey County, Winter

3.7 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Gonzales Microgrid Operational Analysis - Monterey County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0569	0.2454	0.7175	2.0700e-003	0.1743	1.7500e-003	0.1761	0.0467	1.6300e-003	0.0483		209.4437	209.4437	0.0101		209.6949
Unmitigated	0.0569	0.2454	0.7175	2.0700e-003	0.1743	1.7500e-003	0.1761	0.0467	1.6300e-003	0.0483		209.4437	209.4437	0.0101		209.6949

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	28.05	28.05	28.05	81,892	81,892
Parking Lot	0.00	0.00	0.00		
Total	28.05	28.05	28.05	81,892	81,892

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
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.548528	0.027912	0.206330	0.127577	0.020437	0.005268	0.019586	0.027922	0.004162	0.002641	0.007642	0.001233	0.000761
Parking Lot	0.548528	0.027912	0.206330	0.127577	0.020437	0.005268	0.019586	0.027922	0.004162	0.002641	0.007642	0.001233	0.000761

Gonzales Microgrid Operational Analysis - Monterey County, Winter

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	lb/day										lb/day					
NaturalGas Mitigated	0.0116	0.1055	0.0886	6.3000e-004		8.0200e-003	8.0200e-003		8.0200e-003	8.0200e-003		126.5753	126.5753	2.4300e-003	2.3200e-003	127.3275
NaturalGas Unmitigated	0.0116	0.1055	0.0886	6.3000e-004		8.0200e-003	8.0200e-003		8.0200e-003	8.0200e-003		126.5753	126.5753	2.4300e-003	2.3200e-003	127.3275

Gonzales Microgrid Operational Analysis - Monterey County, Winter

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	1075.89	0.0116	0.1055	0.0886	6.3000e-004		8.0200e-003	8.0200e-003		8.0200e-003	8.0200e-003		126.5753	126.5753	2.4300e-003	2.3200e-003	127.3275
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0116	0.1055	0.0886	6.3000e-004		8.0200e-003	8.0200e-003		8.0200e-003	8.0200e-003		126.5753	126.5753	2.4300e-003	2.3200e-003	127.3275

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	1.07589	0.0116	0.1055	0.0886	6.3000e-004		8.0200e-003	8.0200e-003		8.0200e-003	8.0200e-003		126.5753	126.5753	2.4300e-003	2.3200e-003	127.3275
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0116	0.1055	0.0886	6.3000e-004		8.0200e-003	8.0200e-003		8.0200e-003	8.0200e-003		126.5753	126.5753	2.4300e-003	2.3200e-003	127.3275

6.0 Area Detail

6.1 Mitigation Measures Area

Gonzales Microgrid Operational Analysis - Monterey County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.3803	2.0000e-005	2.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.4700e-003	5.4700e-003	1.0000e-005		5.8300e-003
Unmitigated	0.3803	2.0000e-005	2.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.4700e-003	5.4700e-003	1.0000e-005		5.8300e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0576					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3224					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.4000e-004	2.0000e-005	2.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.4700e-003	5.4700e-003	1.0000e-005		5.8300e-003
Total	0.3803	2.0000e-005	2.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.4700e-003	5.4700e-003	1.0000e-005		5.8300e-003

Gonzales Microgrid Operational Analysis - Monterey County, Winter

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0576					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3224					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.4000e-004	2.0000e-005	2.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.4700e-003	5.4700e-003	1.0000e-005		5.8300e-003
Total	0.3803	2.0000e-005	2.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.4700e-003	5.4700e-003	1.0000e-005		5.8300e-003

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

Gonzales Microgrid Operational Analysis - Monterey County, Winter

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

Appendix C - Federal Highway Administration Construction Equipment Noise Emission Reference Levels

Equipment Description¹	Spec. 721.560 L_{max} @ 50 feet (dBA, slow)	Actual Measured L_{max} @ 50 feet (dBA, slow)
Auger Drill Rig	85	84
Backhoe	80	78
Compactor (ground)	80	83
Compressor (air)	80	78
Concrete Mixer Truck	85	79
Concrete Pump Truck	82	81
Concrete Saw	90	90
Crane	85	81
Dump Truck	84	76
Flat Bed Truck	84	74
Front End Loader	80	79
Generator	82	81
Generator for road signs	70	73
Grader	85	N/A
Jackhammer	85	89
Man Lift	85	75
Pickup Truck	55	75
Pneumatic Tools	85	85

¹ Above specs derived from Federal Highway Administration (FHA) web site on July 27, 2021 - https://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/handbook09.cfm

Vacuum Street Sweeper	80	82
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