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APPLICATION FOR SMALL POWER PLANT EXEMPTION

Vernon Backup Generating Station (25-SPPE-1)

SUBMITTED TO: CALIFORNIA ENERGY COMMISSION

SUBMITTED BY: **GIC Vernon, LLC**

February 2025

DAYZEN LLC

Contents

SECTION 1.0 INTRODUCTION AND PURPOSE

GIC Vernon LLC[1] (GIC Vernon) hereby files this Application for a Small Power Plant Exemption (SPPE Application) pursuant to Public Resources Code Section 25541 and Section 1934 et seq. of the California Energy Commission (Commission) regulations for the 99 MW[2] GEP Vernon Backup Generating Facility (VBGF). The VBGF will consist of a total of forty (40) diesel fired generators that will be used exclusively to provide up to 99 MW of backup emergency generation to support the Goodman Energy Park Data Center (GEP). The GEP would consist of two data center buildings designated Building 1 and Building 2 and would be located north and east of the intersection of Vernon Avenue and Soto Street in the City of Vernon, California (City). Building 1 address will be 3163 East Vernon Avenue and Building 2 address will be 3049 East Vernon Avenue.

Thirty-eight (38) of the generators would each have a capacity of 3 MW and would provide backup of the electricity needs of the data centers critical operations. Two (2) generators would each have a capacity of 1 MW and will be used to support general office loads along with building and life safety services for each data center building during an emergency outage (house generators).

Figure 1 in Appendix A shows the Regional Site Vicinity location.

Unlike the typical electrical generating facility reviewed by the Commission, the VBGF is designed to operate only when electricity from Vernon Public Utility (VPU) is unavailable to the GEP. The VBGF will not be electrically interconnected to the electrical transmission grid. Rather, it will consist of two generation yards, each electrically interconnected solely to the data center building (Building 1 or 2) that it supports in a modular configuration at an N+3 block redundant topology.

Section 2 of the SPPE Application provides a detailed description of the construction and proposed operation of the VBGF. To describe the context of the VBGF and its role in serving the GEP, Section 2 also includes a general description of the GEP.

Section 3 of the SPPE Application provides project information such as the project title, lead agency contact, project applicant, project location, assessor's parcel number, and general plan and zoning designations.

Section 4 of the SPPE Application includes environmental information and analyses in sufficient detail to allow the Commission to conduct an Environmental Impact Report or Mitigated Negative Declaration consistent with the California Environmental Quality Act (CEQA) Guidelines.

[1] GIC Vernon LLC is a wholly-owned subsidiary of Goodman.
[2] Maximum electrical demand of the GEP.

Section 5 of the SPPE Application includes a discussion of Alternative backup generation technology and alternative fuels considered by GIC Vernon.

Section 6 of the SPPE Application contains a list of applicable agencies and contact information that have jurisdiction over laws, ordinances, regulations, and standards (LORS) that may be applicable to the VBGF as required by Subsection (i) of Appendix F of the CEC Regulations.

Section 7 of the SPPE Application contains a list of addresses of properties and addresses of property owners (where different from the site address) within 1,000 feet of the project site and 500 feet of offsite linear facilities for CEC noticing purposes.

Section 8 provides a list of those who assisted in the preparation of this SPPE Application.

Section 9 provides a list of acronyms used in this SPPE Application.

1.1 NEED FOR BACKUP GENERATION

The primary goal of the GEP is to be a state-of-the-art data center campus that provides greater than 99.999 percent availability (five nines of availability) . The GEP has been designed to reliably meet the increased demand of digital economy, its customers, and the continued growth. The GEP's purpose is to provide its customers with mission critical space to support their servers, including space conditioning and a steady stream of high-quality power supply. Interruptions and poor power quality could lead to computer equipment damage or corruption of the data and software stored on the servers by GIC Vernon's clients. The GEP will be supplied electricity by VPU through a new switching station on the GEP site that will be owned and operated by VPU (VPU Switching Station) . The GEP will include a project substation that will be owned and operated by GIC Vernon (Project Substation). The Project Substation will be located immediately adjacent to the VPU Switching Station.

To ensure a reliable supply of high-quality power, the VBGF was designed to provide backup electricity to the GEP only in the event electricity cannot be supplied from VPU and delivered to the GEP campus. To ensure no interruption of electricity service to the servers housed in the GEP buildings, the servers will be connected to uninterruptible power supply (UPS) systems that provide instantaneous protection from input power interruptions and frequency fluctuations. However, to provide electricity during a prolonged electricity interruption, the UPS systems will require a flexible and reliable backup power generation source to continue supplying steady power to the servers and other equipment. The VBGF provides that backup power generation source.

The GEP's Project Objectives are as follows:

- Develop a state-of-the-art data center large enough to meet projected growth;
- Develop the GEP on land that is zoned for data center use at the subject location and acceptable to City of Vernon;

- Incorporate the most reliable and flexible form of backup electric generating technology into the VBGF considering the following evaluation criteria.
    - **Reliability**. The selected backup electric generation technology must be extremely reliable in case of an emergency loss of electricity from the utility.
        - The VBGF must provide a higher availability than 99.999 percent in order for the GEP to achieve an overall reliability of equal to or greater than 99.999 percent availability at the critical load.
        - The VBGF must provide reliability to the greatest extent feasible during natural disasters including earthquakes.
        - The selected backup electric generation technology must have a proven built-in resilience so if any of the backup unit fails due to external or internal failure, the system will have redundancy to continue to operate without interruption.
        - The GEP must have on-site means to sustain power for 24-hours minimum in failure mode, inclusive of utility outage.

      Commercial Availability and Feasibility. The selected backup electric generation technology must currently be in use and proven as an accepted industry standard for technology sufficient to receive commercial guarantees in a form and amount acceptable to financing entities. It must be able to be permitted and operational within a reasonable timeframe .
    - **Technical Feasibility**. The selected backup electric generation technology must utilize systems that are compatible with one another.

1.2 COMMISSION SPPE JURISDICTION

GIC Vernon acknowledges that the Commission's authorizing statute grants exclusive authority for the Commission to issue licenses for the construction and operation of thermal power plants with generating capacities in excess of 50 MW.[3] For thermal power plants with generating capacities greater than 50 MW but less than 100 MW, the Commission can grant an exemption from its licensing authority[4]. The VBGF is not a

[3] Public Resources Code (PRC) Section 25500.
[4] PRC Section 25541 and Title 20 California Code of Regulations (CCR) Section 1934.

typical power generating facility in that it consists of generators that can operate independently. In addition, the generators are arranged to support individual portions of the buildings within the GEP. None of the generators will be interconnected to the electrical transmission system and therefore no electricity can be delivered off site.[5]

1.2.1 Data Center Facilities Not Within Scope of SPPE

The GEP is not within the scope of the Commission's sitting jurisdiction because it is not a thermal power plant. The GEP is the sole consumer of the electricity produced by the VBGF. GIC Vernon has submitted a development application to construct and operate the GEP to the City's for review. The City commenced its Preliminary Review in November 2024.

GIC Vernon believes that although the CEC is the lead agency for making a determination of whether the VBGF is a thermal power plant that can qualify for a SPPE, the ultimate decision does not extend to the GEP facilities. GIC Vernon does acknowledge that the CEC should include the potential effects of the GEP in its analysis prepared as lead agency for the California Environmental Quality Act (CEQA), but the ultimate determination of whether the GEP should be approved, denied, or subject to mitigation measures is solely within the City's jurisdiction. To assist the CEC in preparing its CEQA document, GIC Vernon includes a description of the GEP and its supporting facilities in addition to the VBGF in Section 2. The potential effects of the GEP are considered in environmental analyses of Section 4 in a manner to assist the Commission in evaluating combined impacts from the co-location of the VBGF and the GEP.

To enable the City to timely complete its review of the GEP, GIC Vernon requests the Commission complete its review of the VBGF within the Commission's statutory 135-day obligation or no later than August 2025.

1.3 PROJECT BENEFITS

The GEP provides much needed data center infrastructure for an increasingly more internet and data driven society. The GEP has been designed to:

- Minimize water usage by utilizing closed loop chilled water system
- Use of Renewable Diesel as the primary fuel source for the backup generators;
- Minimize emissions by performing generator maintenance on one generator at a time;

[5] The Commission Staff has determined that notwithstanding these facts, the Commission has jurisdiction over the VBGF as a thermal power plant. GIC Vernon reserves all its rights regarding whether or not the Commission has jurisdiction over the VBGF and the filing of this SPPE Application is not an admission by GIC Vernon that the Commission has exclusive jurisdiction over either the VBGF or the GEP.

- Operate the backup generators only when there is an interruption of utility service to the site and not for demand response or other grid-related purposes;
- Incorporate Noise minimization measures
- Incorporate Energy and Water Efficiency Measures;
- Incorporate Storm Water Low Impact Design (LID) measures including a Modular Wetland System (MWS) as an underground stormwater biofiltration system such as “capture and clean”, and
- Implement Leadership in Energy and Environmental Design (LEED) and other US Green Building Council (USGBC) design and construction methodologies.

Due to the heat generated by the data center equipment, cooling is one of the main uses of electricity in data center operations. In order to reduce GHG emissions and reduce the use of energy related to building operations, the project proposes to implement the following efficiency measures.

- Daylight penetration to offices
- LED lighting fixtures and occupancy sensors
- Reflective roof surface
- Meet or exceed Title 24 requirements
- Electric vehicle (EV) parking
- Low flow plumbing fixtures
- Landscaping would meet City requirements for low water use
- Low GHG emission refrigerant in the project chillers
- High efficiency critical electrical equipment
- High efficiency HVAC equipment with economization features

SECTION 2.0 PROJECT DESCRIPTION

2.1 OVERVIEW OF PROPOSED GENERATING FACILITIES

VBGF will be an emergency backup generating facility with a generation capacity of up to 99 MW to support the need for the GEP to provide clean uninterrupted power for its tenant's servers. The VBGF will consist of forty (40) diesel-fired backup generators. Thirty-eight (38) of the generators will each have a generating capacity of 3 MW and two (2) of the generators will each have a generating capacity of 1 MW. The generators will be arranged in two generation yards located adjacent to each data center building (Buildings 1 and 2). All thirty-eight (38) of the larger generators would be dedicated to replace the electricity needs of the data center in case of a loss of utility power, and both of the smaller generators would be used to support general office loads along with building and life safety services (house and life safety generators).

2.2 GENERATING FACILITY DESCRIPTION, CONSTRUCTION AND OPERATION

2.2.1 Site Description

The proposed GEP site will consist of one parcel created by a proposed Lot Line Adjustment . The new parcel will total approximately 11.55 acres in size and is located north and east of the intersection of Vernon Avenue and Soto Street in the City of Vernon, California (City). The current APNs are 6303-005-035 and 6303-005-036, which are subject to change after the recordation of the Lot Line Adjustment. The property is currently zoned General Industrial with "Slaughtering" and "Commercial 1" overlays. According to the local Zoning Code, the uses allowed in these Zoning Areas are Industrial in nature, of which Data Center is allowed. The site formerly included a portion of the Smithfield Packaged Meats Corporation warehouses and packaging facilities. All of these facilities have been demolished and removed from the site leaving the site vacant.

The site will have two main and two secondary entrances; one set for each building. The main entrance to Building 1 will be in the southeast corner of the site and the secondary entrance to Building 1 will be along the southern boundary of the site. Both of these entrances would provide access to and from Vernon Avenue.

The main entrance to Building 2 will be located in the northwest corner of the site and the secondary entrance to Building 2 will be along the southern boundary of the site. The main entrance will provide access to and from Soto Street and the secondary entrance would provide access to and from Vernon Avenue.

The site is irregularly shaped and is generally bound to the North by property that was formerly part of the Smithfield Packaged Meats Corporation warehouses and packaging facilities, that have now been demolished and structures removed. The site is bounded on the west by Soto Street, on the east by an existing industrial and warehouse property and on the south by East Vernon Avenue.

The site is surrounded by existing industrial uses. The nearest residential area is located to the southeast approximately 1 mile from the project boundary.

2.2.2 General Site Arrangement and Layout

The 40 emergency backup generators (38 for the data center suites and 2 for the house and life safety load) will be located at the site in two generation yards adjacent to each of the two GEP buildings. Figures A01-00 and C05-01, Appendix A shows the Campus, Building and Site Plans of the VBGF within the GEP site.

Each generation yard will be electrically connected to the data center building (Building 1 or Building 2) through a cable bus system to a location within the building that houses electrical distribution equipment.

2.2.3 Generating Capacity

2.2.3.1 Overview

In order to determine the generating capacity of the VBGF, it is important to consider and incorporate the following critical and determinative facts.

1. The VBGF uses internal combustion engines and not turbines.
2. The VBGF internal combustion engines have a peak rating and a continuous rating.
3. The VBGF through software technology and electronic devices is controlled exclusively by the (GEP).
4. The VBGF has been designed with a modular block redundant catcher system with “N+3” redundancy per building
5. There will be a total of 6 redundant data center generators..
6. There will be a total of 2 house generators (one for each data center building) to provide electricity during emergencies to specifically support portions of the admin building and features necessary for emergency response.
7. The VBGF will only be operated for maintenance, testing and during emergency utility power outages and will not operate for any demand response program.
8. The VBGF will only operate at a load equal to the demand of the GEP during an emergency utility outage.
9. The VBGF is only interconnected to the GEP and is not interconnected to the transmission or distribution grid.

2.2.3.2 Generating Capacity and PUE

The Commission has determined the maximum generating capacity of a backup generating facility is the maximum capacity of the load being served. The design demand

of the GEP, which the VBGF has been designed to reliably supply with redundant components during an emergency, is based on the maximum critical IT load and maximum mechanical cooling electrical load occurring during the hottest temperature in the last 20 years. Such conditions are possible but extremely unlikely to ever occur. The GEP load on that worst-case day will be 99 MW.

It is important to understand that while the GEP will be designed to accommodate the full IT equipment load of the building, it is GIC Vernon's experience that the customers that lease data center space do not utilize the entire load identified in their lease. This typically results in data center demand loads approximately 85-90 percent. Therefore, a fully leased 99 MW data center would only be expected to reach a demand load around 89 MW.

The data center industry utilizes a factor called the Power Utilization Efficiency Factor (PUE) to estimate the efficiency of its data centers. The PUE is calculated by dividing the total demand of the data center infrastructure serving the critical IT spaces (including IT load) by the Critical IT load itself. The theoretical peak PUE for the Worst Day Calculation would be 1.55 (Total 99.0 MW demand of Building on Worst Case Day divided by 64.0 MW Total Critical IT Load). The average annual PUE at full load would be 1.3 (Total 83.2 MW demand of Building average conditions divided by 64.0 MW Design Critical IT Load). These PUE estimates are based on design assumptions.

2.2.4 Backup Electrical System Design

2.2.4.1 Overview

There will be 6 data center suites in the GEP. Two of the six data center suites will be designed to handle 12 MW (megawatts) of IT equipment load while the other four data center suites will be designed to handle 10 MW (megawatts) of IT equipment load. The total maximum load of a 12 MW data center suite will be 18 MW which includes the IT equipment load, mechanical equipment to cool the IT equipment load, lighting , data center monitoring equipment and other general use load. The total maximum load of a 10 MW data center suite will be 15 MW which includes the IT equipment load, mechanical equipment to cool the IT equipment load, lighting, data center monitoring equipment and other general use load. The sum of the 6 center suites will result in 64 MW of IT equipment load and 99 of total electrical load. This includes worst case house load and worst case mechanical load.

There are 38 electrical lineups supporting the data center suites. Each backup electrical system has been designed to serve the suites in groups.

For 12 MW suites, each redundant system consists of 7, 3 MW generators serving a single data center suite. Each group of 7 generator redundant system is designed for one generator to be taken out of service at any moment in time (called "7 to make 6"). During a utility outage all 7 generators will start and carry load up to up to a design threshold of approximately 86% of their nameplate rating. If one of the generators fails

or needs to be taken out of service during the emergency, the 7 to make 6 design allows the failing generator to be removed from operation automatically with the remaining 6 generators to continue to serve the lineups up to the maximum design load of the data center suite.

For 10 MW suites, each redundant system consists of 6, 3 MW generators serving a single data center suite. Each group of 6 generator redundant system is designed for one generator to be taken out of service at any moment in time (called “6 to make 5”). During a utility outage all 6 generators will start and carry load up to a design threshold of approximately 83% of their nameplate rating. If one of the generators fails or needs to be taken out of service during the emergency, the 6 to make 5 design allows the failing generator to be removed from operation automatically with the remaining 5 generators to continue to serve the lineups up to the maximum design load of the data center suite.

Each redundant backup generation system is made up of “capacity groups” with each electrical capacity group sized at 3 MW (3000 kW) of total power. An electrical capacity group consists of one 3000 kW generator, one 3,333 kVA 34.5kV-480V medium voltage transformer, one 4,000 ampere 480-volt service switchboard and a 2,000-kW uninterruptible power supply (UPS) system.

The IT equipment will have dual cords that will take power from two different capacity groups. The dual cords are designed to evenly draw power from both cords when power is available on both cords, and automatically draw all of its power from a single cord when power becomes un-available on the other cord.

Each of the 7-to-make-6 electrical systems will be designed to continue supporting all of the IT equipment load in the data center suite it serves any time one of the seven capacity groups is either scheduled to be out-of-service for maintenance or becomes un-available due to equipment failure. Therefore, the 21 MW of total power equipment capacity installed for each 7-to-make-6 system effectively provides only 18 MW of total power.

Each of the 6-to-make-5 electrical systems will be designed to continue supporting all of the IT equipment load in the data center suite it serves any time one of the six capacity groups is either scheduled to be out-of-service for maintenance or becomes un-available due to equipment failure. Therefore, the 18 MW of total power equipment capacity installed for each 6-to-make-5 system effectively provides only 15 MW of total power.

The electrical load on each electrical capacity group is monitored by the building automation system. When any of the electrical capacity groups reach 90 percent of the normal operating load, an alarm is activated in the engineering office. The operations staff will work with the tenants to ensure that the facility's power levels are not exceeded.

The consequence of electrical capacity groups exceeding the design threshold could lead to dropping IT equipment when coupled with a capacity group failure event. If all the capacity groups serving a data center suite are loaded over design threshold load and an electrical capacity group fails, the resulting load transferring to the remaining available capacity groups would exceed the rating of the capacity groups and would lead to over-

current protection devices tripping open due to the overload condition. Therefore, it is vital to the reliability of the data center to make sure that all capacity groups remain below the design thresholds described above.

2.2.4.2 Utility-to-Generator Transfer Control Components and Logic

In a switchboard located next to the Generator Alternator, there will be a Load Disconnect Breaker that is Normally Closed while the generator is both in and out of operation. From that load disconnect, power is brought into the data center facility terminating on a dedicated Main Generator Input Breaker on the lineup Main Switchboard.

This Generator Main Breaker is electrically interlocked with an adjacent Utility Transformer Main Breaker to allow only one of the breakers to be closed at any time. Upon the loss of utility power, the digital transfer controller will send a start signal to the generator, followed by the Utility Breaker opening, followed by a confirmation that the generator has started leading to the Generator Main Breaker being closed. All transfers to/from generator are open transition.

Once the Generator Main Breaker is closed, the power created from the individual generator is then transmitted to the IT equipment (via a 2.0 MW (2,000 kW) uninterruptable power supply (UPS) system) and mechanical equipment designed to cool the IT equipment load served by the UPS. This load is the same load that the dedicated Utility Transformer was supplying power to prior to the utility interruption. Power from this individual generator cannot be transferred to any other load or system, or anywhere outside the facility.

The uninterruptible power supply (UPS) system includes back-up batteries sized for minimum five minutes of battery back-up time at the battery's end of life. During the time between a transfer between utility and generator power, the UPS system continues to support the IT equipment load without interruption. During a utility-to-generator transfer, the duration of the power outage between the sources will typically be around 15 seconds; it takes around ten seconds to get the generator started and up to voltage and frequency. During a generator-to-utility transfer, the duration of the power outage between the sources will typically be less than five seconds (during this period the IT loads will be supplied by the UPS).

2.2.4.3 Uninterruptible Power Supply (UPS) System Description

The UPS System and Batteries are part of the GEP and are not part of the VBGF. However, the following description is provided to describe how the UPS system is intended to operate. The UPS will protect the load against power quality issues. The UPS will have built-in protection against permanent damage to itself and the connected load for all predictable types of malfunctions. The load will be automatically transferred to the bypass line in an open transition manner but without interruption in the event of an internal UPS malfunction or overload condition. The status of the UPS system will be indicated

on an LCD graphic display screen on the front of the UPS. The UPS will operate in the following modes:

- Normal - IGBT Rectifier converts AC input power to DC power for the inverter and for charging the batteries. The IGBT inverter supplies clean and stable AC power continuously to the critical load while regulating power factor and minimizing total harmonic distortion. The UPS Inverter output will be synchronized to the bypass AC source when the bypass source is within the AC input voltage and frequency specifications.
- Loss of Main Power - When Main Power is lost, the battery system will automatically feed the inverter so there is no interruption of AC power to the critical load.
- Return of Main Power or Generator Power - The system shall recover to the Normal Operating Mode and shall cause no disturbance to the critical load while simultaneously recharging the backup battery.
- Transfer to Bypass AC source - If the UPS becomes overloaded, or an internal fault is detected, the UPS controls shall automatically transfer the critical load from the inverter output to the bypass AC source without interruption. When the overload or internal warning condition is removed, after a preset “hold” period the UPS will automatically re-transfer the critical load from the bypass to the inverter output without interruption of power to the critical load.
- Maintenance Bypass - All manual make-before-break maintenance bypass panel will be provided to electrically isolate the UPS for repair, maintenance or test without affecting the operation of critical load.

The UPS system batteries will have tab washers mounted on front terminal posts capable of accepting the wiring components of a battery monitoring system. Batteries will have an expected life of ten years. Each battery bank will provide a minimum of five minutes of backup at 100 percent rated inverter load of 2000kW, @ 77°F (25°C), 1.67 end volts per cell, end of life.

2.2.5 Generator System Description

Each of the 38 large generators will be Cummins Model C3000D6EB optional standby diesel-fired generators equipped with Selective Catalytic Reduction (SCR) equipment, diesel exhaust fuel and diesel particulate filters (DPF) to comply with Tier 4 emissions standards. The generators will be installed in a paired layout, where two generator enclosures will be installed in an abutted fashion, with necessary separation between each generator enclosure pair. The maximum peak generating capacity of each generator is 3 MW for standby applications (short duration operation). Under normal operation when all generators are active, the maximum load on each generator is designed to be 83-86

percent of the peak capacity. Manufacturer specification sheets and performance data for the proposed generators are provided in Appendix B.

Each individual generator will be provided with its own package system. Within that package, the prime mover and alternator will be automatically turned on and off by a utility-generator digital transfer controller located in the 480-volt main switchboard located within the GEP. Each generator will be controlled by a separate, independent transfer controller. The generator will be turned on if the electrical utility power becomes unavailable and will be turned off after utility power has been restored and the transfer controller has returned the utility to the active source of power serving the computer and mechanical loads within the GEP. Each generator will run individually and will never operate in parallel mode.

The generator package will integrate a Selective Catalytic Reduction (SCR), Diesel Particulate Filter (DPF), and Diesel Exhaust Fluid (DEF) tank. The large generators will be constructed in pairs that are abutted side by side as shown in Figures A01-00 and C05-01 in Appendix A. The generators will be placed on a concrete slab which will include a 6 inch high curb to act as secondary containment in the unlikely event of spills during refilling or tank leakage of fuel and DEF. The generator enclosures are approximately 13 feet wide, 70 feet long and 22 feet high. Generators will have stack heights approximately 32 feet above ground level. Each pair of generators will be spaced approximately six feet apart horizontally.

Each of the 2 smaller house generators will be Cummins QST30-G5 optional standby diesel-fired generators equipped with SCR, DPF, and DEF to comply with Tier 4 emission standards. These generators will also be located in the generator yards as shown on Figures A01-00 and C05-01.

2.2.6 Fuel System

The backup generators will use renewable diesel as its primary fuel when feasible and ultra-low sulfur diesel as fuel (<15 parts per million sulfur by weight) when renewable diesel is not readily available.[6] Each generator enclosure pair will have a dedicated 12,000-gallon base mounted tank that will feed both generators in the paired configuration. Tanks will be double walled with leak detection.

Each of the smaller house generators will have an integrated diesel fuel tank into its enclosure with a capacity of approximately 3,000 gallons.

The generators would have a combined diesel fuel storage capacity of approximately 234,000 gallons, which is sufficient to provide more than 24 hours of emergency generation at full electrical worst-case demand of the GEP.

[6] See Project Design Measure PDM GHG-1.

2.2.7 Cooling System

Each generator will be air cooled independently as part of its integrated package and therefore there is no common cooling system for the VBGF.

2.2.8 Water Supply and Use

The VBGF will not require any consumption of water.

2.2.9 Waste Management

The VBGF will not create any waste materials other than minor amounts of solid waste created during construction and maintenance activities.

2.2.10 Hazardous Materials Management

The VBGF will prepare a Spill Prevention, Control and Countermeasure Plan (SPCC) to address the storage, use and delivery of diesel fuel for the generators.

Each generator unit and its integrated fuel tanks have been designed with double walls. The interstitial space between the walls of each tank is continuously monitored electronically for the existence of liquids. Additionally, the standby generator units are housed within a self-sheltering enclosure that prevents the intrusion of storm water.

Diesel fuel will be delivered on an as-needed basis in a compartmentalized tanker truck with maximum capacity of ~17,500 gallons. To refuel the Building 1 generators, the tanker truck parks on the access road to the west of the Building 1 generator yard and extends the fuel fill hose to each respective generator refueling port. To refuel the Building 2 generators, the tanker truck parks on the access road to the north of the Building 2 generator yard and follows the same process of extending the fuel fill hose to each respective generator refueling port.

There are no loading/unloading racks or containment for re-fueling events; however, a spill catch sump is located at the low spots within each fill port for the fuel tank. To prevent a release from entering the storm drain system, storm drains will be temporarily blocked off by the truck driver and/or facility staff during fueling events. Rubber pads or similar devices will be kept in the generation yard to allow quick blockage of the storm sewer drains during fueling events.

A 6-in high curb is also located around each generator yard to prevent spilled diesel fuel from sheet flowing into storm drain inlets. The generator yard will be sloped to low spots, where exterior drains will be placed, to prevent ponding of rainfall. A sump and sump pump are provided at the low spots of the generator yard. The sump pump will be a ¾ HP submersible sump pump or equivalent, which will remain off/closed until operated

manually. The generator yard will be able to contain the volume of the largest single tank plus 24 hours of 25-year rainfall within the curb contained area.

To further minimize the potential for diesel fuel to come into contact with stormwater, to the extent feasible, fueling operations will be scheduled at times when storm events are improbable.

Warning signs and/or wheel chocks will be used in the loading and/or unloading areas to prevent vehicles from departing before complete disconnection of flexible or fixed transfer lines. An emergency pump shut-off will be utilized if a pump hose breaks while fueling the tanks. Tanker truck loading and unloading procedures will be posted at the loading and unloading areas.

Diesel Exhaust Fluid (DEF) is used as part of the diesel engine combustion process to treat the exhaust gas and meet the emissions requirements. Each enclosure will have a 100 gallon DEF tank.

2.2.11 VBGF Project Construction

Construction activities for the GEP are expected to begin in the fourth quarter of 2025 and are discussed in more detail in Section 2.3.9. Since the site preparation activities for the GEP will include the ground preparation and grading of the GEP site, the only construction activities for the VBGF would involve construction of the generation yards for each data center building. This will include construction of concrete slabs, fencing, installation of underground and above ground conduit and electrical cabling to interconnect to the GEP switchgear, and placement and securing the generators.

The generators themselves will be assembled offsite and delivered to site by truck. Each generator will be placed within the generation yards by a crane.

Construction of the generation yards and placement of the generators is expected to take six months and is included in the overall construction schedule for the GEP described in section 2.3.9. Construction personnel for the VBGF are estimated to range from 10 to 15 workers including one crane operator.

2.2.12 VBGF Facility Operation

The backup generators will be run for short periods for testing and maintenance purposes and otherwise will not operate unless there is a disturbance or interruption of the utility supply. The South Coast Air Quality Management District's Authority to Construct and the California Air Resources Board's Airborne Toxic Control Measures (ATCM) limits each engine to no more than 50 hours annually for reliability purposes (i.e., testing and maintenance). Maintenance and testing of each of the generators are anticipated to be once a month. Each generator will be tested individually during monthly and annual testing. Generators will only be run simultaneously during an emergency utility outage.

2.3 GEP FACILITIES DESCRIPTION

2.3.1 Overview

As described in Section 1.2, the Commission SPPE's determination is limited to solely to the VBGF. However, in order for the Commission to inform the decision-makers of the potential environmental effects of the VBGF, in combination with the GEP, GIC Vernon has included a complete description of the GEP. The components of the GEP will include:

- Two three-story approximately 283,836 square foot data center buildings designated as Building 1 and Building 2;
- A Project Substation;
- A VPU Switching Station and Transmission Lines;
- The VBGF;
- Site Access and Surface Parking;
- Landscaping;
- Stormwater Controls and Features; and
- Water and Sewer Pipeline Interconnections.
- Improvements to the Right-of-Way at the project frontage

2.3.2 Data Center Buildings

The GEP main component will be two, three-story approximately 283,836 square foot data center buildings (designated Building 1 and Building 2) that will house computer servers for private clients in a secure and environmentally controlled structure and would be designed to provide 64 megawatts (MW) of power to information technology (Critical IT) equipment. Appendix A includes the Preliminary Architectural, Civil, Mechanical, Electrical, Plumbing, Fire Suppression, Landscaping Plans and Elevation Drawings.

The data center buildings will consist of two main components; the data center suites that will house client servers, and the administrative facilities including support facilities such as the building lobby, restrooms, conference rooms, landlord office space, customer office space, loading dock and storage.

The data center suite components will consist of three levels of data center space. Each level will contain one (1) data center suite and corresponding electrical/UPS rooms. The data center is being designed with an average rack power rating of 5 to 7 kW.

The GEP is expected to have 30 employees and up to 30 visitors (including deliveries) visit the site per day.

2.3.2.1 Massing, Heights and Setbacks

The three-story data hall buildings are composed of administration space, data hall, and loading dock masses. The administrative space is clad with curtain wall and metal panel systems. The data hall portion is clad primarily in metal panels. The top of the parapet at the administrative space and data hall is at 85 feet above grade level. Two stairs located at each of the buildings are fully enclosed within the building footprint. A rooftop dunnage platform is provided at 88 feet above grade level for mechanical equipment. A sound attenuating screen topping off at 96 feet above grade level fully encloses the platform. Access to the platform is provided by a freight elevator and both staircases mentioned above. The top of the elevator parapet is at 105 feet above grade level.

Building 1 will be located on the east end of the site with its long axis oriented in a North-South configuration, and will be set back at a minimum of 19 feet from the property lines to the north, south and east and a minimum of 182 feet from the electrical yard to the west. South of Building 1 sits East Vernon Avenue.

Building 2 will be located on the west end of the site with its long axis oriented in an East-West configuration, and will be set back at a minimum of 19-ft from the property lines to the north, south, and west and a minimum of 50 feet from the electrical yard to the east. Also south of Building 2 sits East Vernon Avenue. West of Building 2 sits Soto Road, where other industrial related buildings & a gas station exist along the Soto Road frontage.

2.3.2.2 Cooling Technology

Air cooled chillers are used to reject the heat generated in the data center buildings. They are sized to be able to carry the full heat load under without any water requirement.

Battery rooms inside the building are conditioned with separate split system cooling units dedicated to each room. Condensing units for these systems are located on the roof platform.

The data halls are provided with pressurization air via Make-up Air Units (MAU) equipment which is also located on the roof.

Code minimum building ventilation air is provided using a direct outside air supply (DOAS) unit that sits at the roof level as well.

2.3.3 Project Substation

The project would construct a new 100 MVA (mega volt-ampere) electrical substation adjacent to the data center building (Project Station). The four-bay Project Substation (four 56 MVA 66 kV - 34.5 kV step-down transformers and primary distribution switchgear) will be designed to allow two of the four transformers to be taken out of service, effectively providing 100 MVA of total power (a 4-to-make-2 design).

The Project Substation will have an all-weather drivable surface. An eight-foot-high chain like fence would surround 3-sides of the substation with the 4th common with the VPU switching station enclosure material. An oil containment pit surrounding each transformer will capture unintended oil leaks. Access to the substation will be from the loop road serving the data center building.

The Project Substation will be capable of delivering electricity to the PDC from VPU's new adjacent on-site Switching Station but will not allow any electricity generated from the VBGF to be delivered to the transmission grid. Availability of Project Substation control systems will be ensured through a redundant DC battery backup system. A one-line diagram of the Project Substation is included in Appendix A.

2.3.4 VPU Switching Station and Transmission Lines

To serve the GEP, VPU will be extending two 66KV circuits from their Leonis substation. From Leonis Substation, GM2 Circuit 1 will begin east on 50th street to Downey. It will travel north on Downey RD and turn west on Leonis Blvd. From Leonis Blvd it will travel north on S. Boyle Ave then turn west on E. Vernon Ave until it reaches the new VPU Switching Station. GM2-Circuit 2 will exit Leonis to the south then turn west on Fruitland Ave up to S. Boyle Ave where it turns north. From S. Boyle Ave it turns west on E. Vernon Ave until it reaches the VPU Switching Station. The routes involve modifying existing poles and adding new poles to accommodate the extension of new circuits that will terminate at the new Soto Switching Station located at the GEP. The final design has not been completed by VPU so actual locations of new poles is unknown. The routes are shown on Figure 2 in Appendix A.

VPU Switching Station will be constructed between Building 1 and Building 2. The two incoming 66KV circuits will terminate at their dedicated rack connected in a Main-Tie-Main configuration. The two circuits are redundant. One circuit has the capacity to support both buildings at 99 MVA.

The VPU Switching Station will have crushed rock surface with an aggregate base. An 8-foot tall anti-climb fence will surround all 4 sides of the switchyard. Access to the VPU Switching Station will be from a dedicated entrance gate not accessible to the public.

A preliminary one-line diagram for the VPU Switching Station is provided in Appendix C.

The VPU Switching Station will use 72.5KV rated vacuum circuit breakers with 750 MVA short circuit rating. Protective devices will not have SF6 and therefore be free from any GHG emissions.

2.3.5 Site Access and Parking

The site will have two main and two secondary entrances; one set for each building. The main entrance to Building 1 will be in the southeast corner of the site and the secondary

entrance to Building 1 will be along the southern boundary of the site. Both of these entrances would provide access to and from Vernon Avenue.

The main entrance to Building 2 will be located in the northwest corner of the site and the secondary entrance to Building 2 will be along the southern boundary of the site. The main entrance will provide access to and from Soto Street and the secondary entrance would provide access to and from Vernon Avenue.

The project would provide a total of 88 parking spaces on site. 82 parking spaces will be standard spaces, 2 parking spaces will be ADA standard spaces, 4 parking spaces will be ADA Van Accessible spaces.

Of the 82 standard parking spaces, 2 stalls will be EV ready stalls and 12 will be EV capable. Of the ADA standard spaces, 2 stalls will be EV ready.. The proposed parking plan conforms to City Code and CalGreen Standards.

The proposed Building 1 would provide a total of 38 parking spaces on site. 35 parking spaces will be standard spaces, 1 parking space will be ADA standard space, and 2 parking space will be ADA van space. Of the Building 1 parking spaces listed above, 1 standard stall will be EV ready, 6 standard stalls will be EV capable, and 1 ADA standard space will be EV ready.

The proposed Building 2 would provide a total of 50 parking spaces on site. 47 parking spaces will be standard spaces, 1 parking spaces will be ADA standard space, and 2 parking space will be ADA van space. Of the Building 2 parking spaces listed above, 1 standard stall will be EV ready, 6 standard stalls will be EV capable, and 1 ADA standard space will be EV ready.

2.3.6 Landscaping

The current condition of the site is a demolished lot – therefore, there is no landscaping that needs to be removed as a part of GEP construction.

New landscaping for GEP will consist of trees, large and medium shrubs, and groundcovers installed along the property boundaries, building perimeters, and landscape beds distributed throughout the parking facilities. Trees will be planted three feet away from new or existing water mains or utility lines.

The new landscape will include drought tolerant native and non-native trees, shrubs, and groundcovers. New planting will also be tolerant of recycled water. The landscape design will meet the State and City WELO requirements for water use. Based on our calculations, which can be found on sheet L02-01, Schematic Planting Plan, we estimate that the new planting will be approximately 15% under the landscape Maximum Water Use for the site.

2.3.7 Stormwater Controls and Features

Under the Federal Clean Water Act, each municipality throughout the nation is issued a stormwater permit through the National Pollutant Discharge Elimination System (NPDES) program. The primary goal of each Stormwater permit is to stop polluted discharges from entering the storm drain system and local receiving and coastal waters. In California, the NPDES stormwater permitting program is administered by the State Water Resources Control Board (SWRCB) through its nine Regional Boards.

The requirement to implement the Permit is based on federal and state statutes, including Section 402(p) of the Federal Clean Water Act, Section 6217 of the Coastal Zone Act Reauthorization Amendments (CZARA) of 1990, and the California Water Code. The Federal Clean Water Act amendments of 1987 established a framework for regulating stormwater discharges from municipal, industrial, and construction activities under the NPDES program. The primary objectives of the stormwater program requirements are to:

- Effectively prohibit non-stormwater discharges, and
- Reduce and eliminate the discharge of pollutants from stormwater conveyance systems to the Maximum Extent Practicable statutory standard.

On November 8, 2012, the Regional Board adopted Order No. R4-2012-0175 (Municipal NPDES

Permit). The Municipal NPDES Permit requires the Permittees to implement Low Impact Development under the Planning and Land Development Program provision.

In November 2013, the City of Vernon amended Chapter 21, Article V Storm Sewer System of

the Municipal Code to include stormwater pollution controls for specific new development and redevelopment projects termed Planning Priority Projects (Ordinance No. 1216). The purpose of the provisions in Chapter 21 is to enhance and protect the water quality of the receiving waters of the United States in a manner that is consistent with the Clean Water Act and the Municipal NPDES Permit. The intent of Chapter 21 is to protect and control the City's sanitary sewer system; and to reduce Stormwater and urban runoff pollutants by improving the quality of Stormwater that are discharged into the regional Stormwater system within Los Angeles County known as the municipal separate storm sewer system (MS4).

The project disturbs approximately 11.4 acres, which falls in the category of "planning priority projects" as "All development projects equal to 1 acre or greater of disturbed area that adds more than 10,000 square feet of impervious surface area". The project is subject to comply with the following pursuant to City of Vernon Municipal Code Chapter 21:

- Retain stormwater runoff onsite for the Stormwater Quality Design Volume (SWQDv) defined as the runoff from:

- The 85th percentile 24-hour runoff event as determined from the Los Angeles County 85th percentile precipitation isohyetal map; or
- The volume of runoff produced from a 0.75 inch, 24-hour rain event, whichever is greater.

- If partial or complete onsite retention is technically infeasible, the project Site may biofiltrate 1.5 times the portion of the remaining SWQDv that is not reliably retained onsite. Biofiltration BMPs must adhere to the design specifications provided in the MS4 Permit.
- The remaining SWQDv that cannot be retained or biofiltered onsite must be treated onsite to reduce pollutant loading. BMPs must be selected and designed to meet pollutant-specific benchmarks as required per the MS4 Permit.

GEP proposes to use underground stormwater biofiltration system called MWS as Best Management Practice (BMP) to treat all onsite stormwater runoff. The MWS is a biofiltration system that utilizes horizontal flow within a small footprint to reach high treatment capacity and design versatility that helps with the project's restraints on infiltration due to soil characteristics. The MWS is comprised of a prefabricated concrete unit that contains pretreatment chamber, biofiltration chamber, overflow weir and overflow chamber. Roof runoff will be routed through scuppers and connect to underground storm drain system. Surface runoff of hardscape such as concrete sidewalk and asphalt driveway and parking stalls will sheet flow and be collected in various catch basins at low spots and then routed to the underground storm drain system. Multiple MWSs are located at the downstream side of the storm drain system before discharging offsite to treat all onsite runoff. The MWS is sized to treat 1.5 times the SWQDv. During larger storm events, overflow will discharge to the City owned 15~18-in storm drain along East Vernon Ave at four outlets. Refer to C05-01 Utility Plan and C06-01 LID plan for detailed design.

2.3.8 Utility Interconnections

As part of the construction of the new building, domestic water, fire water, sanitary sewer, and fiber connections will be made.

2.3.8.1 Domestic Water Infrastructure

The site is served by an existing 12" water main on East Vernon Avenue, which is adequately sized to serve the site. Laterals will provide water service for potable, irrigation, and fire water needs at the buildings.

2.3.8.2 Sanitary Sewer Infrastructure

Existing 8-inch and 15-inch sanitary sewer mains run parallel to the project in East Vernon Avenue. The project proposes to extend service laterals to these mains; specifically, Building 1 will extend four (x4) 6-inch laterals to the 15-inch main and Building 2 will extend four (x4) 6-inch laterals to the 8-inch main. Both sewer mains are sized adequately for the GEP Site.

2.3.9 Right of Way Improvements at Project Frontage

The City of Vernon will require improvements to the Right-of-Way adjacent to the development property to meet the City's Master Street Improvement Plan, including widening of Vernon Avenue roadway, improving the existing adjacent sidewalk, and installing new street trees.

As stipulated by the City's Master Street Improvement Plan, the Vernon Avenue roadway will need to be widened by 1-foot, increasing the roadway from 43-ft to 44-ft wide.

In addition to the street widening, City of Vernon will require improvements of the existing sidewalk and curb & gutter along the project frontage on Vernon Avenue. These required improvements include replacing the existing sidewalk and installing a new 8-ft wide sidewalk. Additionally, new curb & gutter will be installed with the improved sidewalk. The City has indicated that they will require a dedication of approximately 5' of the existing Soto DC site along the Vernon Ave frontage to construct the new sidewalk improvements.

The existing sidewalk along Soto Street is deemed sufficient, however new curb & gutter may be required. Sidewalk radius at northeast corner of Soto & Vernon will also be adjusted to City's current standards and a new traffic signal will be installed. Furthermore, sidewalk patch work will be required where new utility Point of Connections cross onto the property from the Right of Way.

New street trees are required to be planted along both Vernon Avenue and Soto Street. The exact quantity of trees to be planted will be determined during the permitting process.

Grind and overlay road repairs for the half of the roadway adjacent to the project will be required along the property lines for the north side of Vernon Avenue and the east side of Soto Street

2.3.10 Site Grading, Demolition, Excavation and Construction

Site grading, excavation, and construction is anticipated to begin in October 2025 through February 2027; a total of approximately 16 months. The peak construction workforce is approximately 150 workers per month with an average of approximately 100 workers per month.

The proposed site grading will involve cut and fill operations utilizing cut material as engineer fill. Based on preliminary grading designs, it is anticipated no material will be exported off site. Any excess earthwork will be spread or stockpiled onsite in the northern

parcel for future use. Maximum cut depths are estimated to be 50 feet for building foundation auger cast pile installation and 10 ft for onsite over-excavation.. As recommended in the preliminary geotechnical engineering report contained in Appendix E, the foundation system for the data center buildings will be an auger cast-in-place concrete pile system extending up to 50 feet below grade . Shallow foundations placed on engineered fill or stable underlying formational material may be used for ancillary support features.

GEP is located in Zone X area of minimal flood hazard in the flood insurance rate map, per FEMA panel No. 06037C1639F dated 9/26/2008 and FEMA panel No. 06037C1638G dated 12/21/2018. The closest FEMA zone with 100 year base flood level is approximately 1.6 miles from the project site which is not representative. The proposed building finish floor elevations 197 and 200 are about 1~3-ft above the existing on-site grade and is about 2~5-ft above the adjacent street center line elevations. The top of bank elevation of LA river at north edge of the property is about 195.5, which both GEP buildings are at least 1.5-ft above. In addition, the onsite storm drain system is sized to ensure no onsite flooding for 50 year storm per County of Los Angeles and City of Vernon requirements. The GEP site is designed to ensure no flooding hazard.

Site Water Supply and Use

Construction

Grading and construction of the GEP including the VBGF is estimated to utilize 1.75 acre feet of water over the 16 month construction period.

GEP Operation

As described above in Section 2.3.2.2, the GEP uses air cooled chillers for cooling needs of the data center. An adiabatic system has been added as an option to reduce compressor use based on weather conditions. Tables 2-1 through 2-2 present the water and sewer demand for the site. .

Table 2-1: Proposed Potable Water Demand

DESCRIPTION OF LAND USE	Potable WATER DEMAND		
	Average Daily Demand (gpd)	Average Yearly Demand (gpy)	Average Yearly Demand (AFY)
FTE Indoor Demand	500 – Building 1 500 – Building 2	182,500 – Building 1 182,500 – Building 2	0.56 - Building 1 0.56 - Building 2
Landscaping	545 – Building 1 545 – Building 2	199,125 – Building 1 199,125 – Building 2	0.61 – Building 1 0.61 – Building 2
Humidification	775 – Building 1 775 – Building 2	282,875 – Building 1 282,875 – Building 2	2.77 - Building 1 2.77 - Building 2
Total Demand	**1,275 - Building 1** **1,275 – Building 2**	**465,375 – Building 1** **465,375 – Building 1**	**4.55 - Building 1** **4.55 - Building 2**

Table 2-2: Proposed Sewer Demand

DESCRIPTION OF LAND USE	SEWER DEMAND	
	Average Daily Demand (gpd)	Average Yearly Demand (gpy)
Administrative HVAC	2,230 – Building 1 2,230 – Building 2	813,950 – Building 1 813,950 – Building 2
Data Halls	145 – Building 1 145 – Building 2	52, 925 – Building 1 52,925 – Building 2
FTE Indoor Demand	500 – Building 1 500 – Building 2	182,500 – Building 1 182,500 – Building 2
Total Demand	2,875 – Building 1 2,875 – Building 2	1,049,375 – Building 1 1,049,375 – Building 2

2.4 PROJECT DESIGN MEASURES

The following Project Design Measures (PDMs) are proposed by GIC Vernon and are incorporated into the design of the project. They are outlined here to ensure that Staff's assessment of the potential impacts of the VBGF and GEP is completed with these measures in place. These PDMs are also repeated in each environmental technical section where applicable and in many cases are identical to the Mitigation Measures adopted by Staff and approved by the Commission in recent SPPE proceedings.

PDM AQ-1: To ensure that fugitive dust impacts are less than significant, the project will implement, at a minimum, the SCAQMD's recommended BMPs during the construction phase. These BMPs are incorporated into the design of the project and will include:

- All exposed surfaces (soil piles, graded areas, and unpaved access roads) shall be watered at least two times per day.
- All haul trucks transporting material offsite shall be covered.
- All track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day.
- All vehicle speeds on onsite unpaved surfaces shall be limited to less than or equal to 15 miles per hour. In addition, no unpaved roadways will be used to service the project during construction (or operation).
- All roadways, driveways, and sidewalks shall be paved as soon as possible. Building pads shall be completed as soon as possible after grading unless seeding or soil binders are used.

- Equipment idling times shall be minimized to 5 minutes per the Air Toxics Control Measure (ATCM). Idling time signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer specifications. All equipment shall be checked by a certified visible emissions evaluator. All equipment will be EPA Tier 4 rated.
- Information on who to contact, contact phone number, and how to initiate complaints about fugitive dust problems will be posted at the site.

PD GHG-1: The project owner shall use renewable diesel for 100 percent of total energy use by the emergency backup generators, and only use ultra-low sulfur diesel (ULSD) as a secondary fuel in the event of supply challenges or disruption in obtaining renewable diesel. The City of Vernon may grant temporary relief from the 100 percent renewable diesel requirement if the project owner can demonstrate a good faith effort to comply with the requirement and that compliance is not practicable. The project owner shall provide an annual report of the status of procuring and using renewable diesel to the City of Pittsburg demonstrating compliance.

PD GHG-2: The project owner shall participate in a renewable energy program that accomplishes 100 percent carbon-free electricity for the GEP, or purchase renewable energy credits or similar instruments that accomplish the same goals of 100 percent carbon-free electricity.

During operation, the project owner shall provide documentation to the City of Vernon of initial enrollment in a renewable energy program and shall submit annual reporting to the City documenting either continued participation in a renewable energy program or documentation that alternative measures continue to provide 100 percent carbon-free electricity as verified by an independent third-party auditor specializing in greenhouse gas emissions.

PDM HAZ-1. A Site Management Plan (SMP) shall be prepared for the Project Site if required and any contaminated soils found in concentrations above established thresholds shall be removed and disposed of according to California Hazardous Waste Regulations or the contaminated portions of the site shall be capped beneath the planned development under the regulatory oversight of the City of Vernon Department of Health and Environmental Control (DEHC) or the California Department of Toxic Substances Control (DTSC). The contaminated soil removed from the site shall be hauled off-site and disposed of at a licensed hazardous materials disposal site.

If there are no contaminants identified in areas of the Project Site to be disturbed that exceed applicable screening levels for the protection of future residential and commercial workers, published by the Regional Water Quality Control Board, Department of Toxic Substances Control, and/or Environmental Protection Agency, the Project applicant shall not be required to prepare or submit a Site Management Plan.

In addition, all contractors and subcontractors shall develop a Health and Safety Plan (HSP) specific to their scope of work and based upon the known environmental conditions. The HSP shall be reviewed and approved by GIC Vernon's Environmental Consultant and Site Safety and Health Officer. Once established, the contractors and subcontractors will keep copies of the approved HSPs onsite for reference.

Components of the SMP (if required) shall include, but shall not be limited to:

- A detailed discussion of the site background;
- Notification procedures if previously undiscovered significantly impacted soil or free fuel product is encountered during construction;
- Onsite soil reuse guidelines based on the California Regional Water Quality Control Board (RWQCB) re-use policy;
- Sampling and laboratory analyses of excess soil requiring disposal at an appropriate off- site waste disposal facility;
- Soil stockpiling protocols; and
- Protocols to manage groundwater that may be encountered during trenching and/or subsurface excavation activities.

Components of the HSP shall include, but shall not be limited to, the following elements, as applicable:

- Provisions for personal protection and monitoring exposure to construction workers;
- Procedures to be undertaken in the event that contamination is identified above action levels or previously unknown contamination is discovered;
- Procedures for the safe storage, stockpiling, and disposal of contaminated soils;
- Provisions for the onsite management and/or treatment of contaminated groundwater during extraction or dewatering activities; and
- Emergency procedures and responsible personnel.

The SMP shall be submitted to DEHC for review and/or approval prior to implementation of any soil remediation activities (if required). Copies of the approved SMP shall be kept on site.

PDM HYD-1: The project will incorporate the following into the design and these measures should be treated as mitigation incorporated into the project. The following will reduce construction-related water quality impacts:

- Burlap bags filled with drain rock shall be installed around storm drains to route sediment and other debris away from the drains.
- Earthmoving or other dust-producing activities shall be suspended during periods of high winds.
- All exposed or disturbed soil surfaces shall be watered daily to control dust as necessary.
- Stockpiles of soil or other materials that can be blown by the wind shall be watered or covered.
- All trucks hauling soil, sand, and other loose materials shall be required to cover all trucks or maintain at least two feet of freeboard.
- All paved access roads, parking areas, and staging areas adjacent to the construction sites shall be swept daily (with water sweepers).
- Vegetation in disturbed areas shall be replanted as quickly as possible.
- All unpaved entrances to the site shall be filled with rock to knock mud from truck tires prior to entering City streets. A tire wash system may also be employed at the request of the City.

PDM NOISE-1: The Project will incorporate the following measures into its construction activities:

1. Require posted signs at the construction site that include permitted construction days and hours, a day and evening contact number for the job site and a day and evening contact number for the City in the event of problems.
2. Notify the City and neighbors within 300 feet in advance of the schedule for each major phase of construction and expected loud activities.
3. When feasible, locate noisy stationary equipment (e.g., generators, pumps, compressors) and material unloading and staging areas away from the sensitive adjacent uses (school and residences).

4. Require that all construction equipment be in good working order and that mufflers are inspected to be functioning properly. If feasible, impact tools shall be shrouded or shielded with intake and exhaust port mufflers when used near noise-sensitive receptors.
5. Avoid unnecessary idling of equipment and engines and to a maximum of 15 minutes near noise- sensitive receptors.
6. Consider means to reduce the use of heavy impact tools and locate these activities away from the property line as feasible.
7. Use hydraulic or electric-powered tools wherever possible to avoid noise associated with compressed air exhaust from pneumatically-powered tools
8. Minimize drop height when loading excavated materials onto trucks.
9. Minimize drop height when unloading or moving materials on-site.
10. House air compressors, generators, and other loud stationary equipment in a sound-attenuating enclosure, located near sensitive receptors.

PDM TRANS-1: A Construction Traffic Management Plan shall be developed and implemented to minimize impacts to the transportation system. The Construction Traffic Management Plan shall detail the project's construction schedule, vehicle type time-of-day plans, route planning, advanced public notices of partial or full street closures or traffic diversion, and other strategies to reduce potential conflicts during construction. The plan shall include, but not be limited to, the following:

- Identification of the traffic controls and methods proposed during each phase of project construction. Provision of safe and adequate access for vehicles, transit, bicycles, and pedestrians. Traffic controls and methods employed during construction shall be in accordance with City of Vernon standards and the requirements of the Manual of Uniform Traffic Control Devices (FHWA, 2009 MUTCD with Revisions 1, 2 and 3, July 2022).
- Provision of notice to relevant emergency services, thereby avoiding interference with adopted emergency plans, emergency vehicle access, or emergency evacuation plans.
- Preservation of emergency vehicle access.
- Identification of approved truck routes in communication with City of Vernon.
- Location of staging areas and the location of construction worker parking.
- Identification of the means and locations of the separation (i.e., fencing) of construction areas and adjacent active uses.

SECTION 3.0 PROJECT INFORMATION

Project Title
Goodman Energy Park Data Center Backup Generating Facility (VBGF)

Lead Agency Contact
Eric Veerkamp
Project Manager
Siting, Transmission and Environmental Protection (STEP) Division
California Energy Commission

Sacramento, CA 95814
Phone: 916-651-0966
E-mail: Eric.Veerkamp@energy.ca.gov

Project Applicant
Jim Cottrell
V.P. Development
GIC Vernon, LLC
3333 Michelson Drive
Suite 1050
Irvine, CA 92612

Project Location
North and east of the intersection of Vernon Avenue and Soto Street in the City of Vernon, California

Assessor's Parcel Numbers
6303-005-035 and 6303-005-036

General Plan Designation and Zoning District
General Plan Designation: General Plan Designation of Industrial with an Overlay District of Slaughtering
Zoning District: Industrial with Slaughtering and Commercial 1 overlays

SECTION 4.0 ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION

This Section describes the environmental setting, evaluates potential impacts, and identifies measures incorporated into the project design to mitigate potential impacts to less than significant levels for each of following environmental subjects:

4.1 Aesthetics
4.2 Agriculture and Forestry Resources
4.3 Air Quality
4.4 Biological Resources
4.5 Cultural Resources
4.6 Energy
4.7 Geology and Soils
4.8 Greenhouse Gas Emissions
4.9 Hazards and Hazardous Materials
4.10 Hydrology and Water Quality
4.11 Land Use and Planning
4.12 Mineral Resources
4.13 Noise
4.14 Population and Housing
4.15 Public Services
4.16 Recreation
4.17 Transportation
4.18 Tribal Cultural Resources
4.19 Utilities and Service Systems
4.20 Wildfire

The discussion for each environmental subject includes the following subsections:

Environmental Setting – This subsection 1) provides a brief overview of relevant plans, policies, and regulations that compose the regulatory framework for the project and 2) describes the existing, physical environmental conditions at the project site and in the surrounding area, as relevant.

Impact Discussion – This subsection includes the recommended checklist questions from Appendix G of the CEQA Guidelines to assess impacts.

- **Project Impacts** – This subsection discusses the project's impact on the environmental subject as related to the checklist questions. For significant impacts, feasible mitigation is identified. "Proposed Design Measures" are measures that the applicant has agreed to incorporate into the design of the project that will minimize, avoid, or eliminate a significant impact (CEQA Guidelines Section 15370
- **Cumulative Impacts** – This subsection discusses the project's cumulative impact on the environmental subject. Cumulative impacts, as defined by CEQA, refer to two or more individual effects, which when combined, compound or increase other environmental impacts. Cumulative impacts may result from individually minor, but collectively significant effects taking place over a period of time. CEQA Guideline Section 15130 states that an EIR should discuss cumulative impacts "when the

project's incremental effect is cumulatively considerable." The discussion does not need to be in as great detail as is necessary for project impacts but is to be "guided by the standards of practicality and reasonableness." The purpose of the cumulative analysis is to allow decision makers to better understand the impacts that might result from approval of past, present, and reasonably foreseeable future projects, in conjunction with the proposed project addressed in this EIR.

The CEQA Guidelines advise that a discussion of cumulative impacts should reflect both their severity and the likelihood of their occurrence (CEQA Guidelines Section 15130(b)). To accomplish these two objectives, the analysis should include either a list of past, present, and probable future projects or a summary of projections from an adopted general plan or similar document (CEQA Guidelines Section 15130(b)(1)). This SPPE Application.

The analysis must determine whether the project's contribution to any cumulatively significant impact is cumulatively considerable, as defined by CEQA Guideline Section 15065(a)(3). The cumulative impacts discussion for each environmental issue accordingly addresses the following issues: 1) would the effects of all of past, present, and probable future (pending) development result in a significant cumulative impact on the resource in question; and, if that cumulative impact is likely to be significant, 2) would the contribution from the proposed project to that significant cumulative impact be cumulatively considerable?

The following Table and Figure was provided by the City of Vernon to identify current development projects and status within the vicinity.

4.1 AESTHETICS

4.1.1 CEQA Checklist

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Aesthetics				
Would the project:				
1) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
2) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
3) In non-urbanized areas, substantially degrade the existing visual character or quality of public views[7] of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	
4) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

4.1.2 Environmental Setting

Regulatory Framework

California Scenic Highway Program. The California Scenic Highway Program was established by the Legislature as Article 2.5 (commencing with section 260) of the Streets and Highways Code. Its purpose is to protect and enhance the natural scenic beauty of California highways and adjacent corridors, through special conservation treatment. Section 263 of the Streets and Highways Code, the "State Scenic Highway System List," provides a list of highways that have been either officially designated or are eligible for designation as a state scenic highway. Review of the list shows the project site is not along a designated state scenic highway.

[7] Public views are those that are experienced from publicly accessible vantage points.

City of Vernon General Plan. .

The City of Vernon General Plan does not identify any scenic vistas, highways or resources within the City.

Regional and Local Setting

The City of Vernon is an incorporated municipality in Los Angeles County, located five miles south of Downtown Los Angeles. Vernon is bordered by the City of Los Angeles to the north and west, Huntington Park, Belle, Maywood, to the South, Commerce to the East, and East Los Angeles to the northeast.

Originally an agricultural and residential community, Vernon was incorporated in 1905 as an industrial city, which it remains today. It was the first exclusively industrial city in the Southwestern United States and is well connected to industrial areas of adjacent communities and the region as a whole. It is bounded by several nearby freeways, such as: Interstate 10 (I-10), I-110, I-710, I-5, and I-105. Vernon is home to an extensive rail network, most notably the Alameda Corridor, which connects the ports of Los Angeles and Long Beach to the rest of the region and nation beyond. Vernon is also located 16 miles northeast of Los Angeles International Airport, another major hub for international cargo trade.

Existing Conditions on Site

As discussed in Section 2.2.1 Existing Site Description, the proposed GEP site will consist of one parcel created by a proposed Lot Line Adjustment . The new parcel will total approximately 11.55 acres in size and is located north and east of the intersection of Vernon Avenue and Soto Street in the City of Vernon, California (City). The current APNs are 6303-005-035 and 6303-005-036, which are subject to change after the recordation of the Lot Line Adjustment. The property is currently zoned General Industrial with ”Slaughtering” and “Commercial 1” overlays. According to the local Zoning Code, the uses allowed in these Zoning Areas are Industrial in nature, of which Data Center is allowed. The site formerly included of a portion of the Smithfield Packaged Meats Corporation warehouses and packaging facilities. All of these facilities have been demolished and removed from the site leaving the site vacant.

Surrounding Land Uses

The Project Site is within a highly urbanized area. It is irregularly shaped and is generally bound to the North by property that was formerly part of the Smithfield Packaged Meats Corporation warehouses and packaging facilities, that have now been demolished and structures removed. The site is bounded on the west by Soto Street, on the east by an existing industrial and warehouse property and on the south by East Vernon Avenue.

The site is surrounded by existing industrial uses, most of which have exterior security lighting. The nearest residential area is located to the southeast approximately 1 mile from the project boundary.

4.1.3 Environmental Impact Discussion

For purposes of analyzing potential Aesthetic related impacts, it is not necessary or prudent to separate the potential impacts of the VBGF and the GEP. Therefore, the following analysis uses the term "Project" which encompasses both construction and operation of the VBGF, the GEP and all related ancillary facilities.

4.1.3.1 Would the project have a substantial adverse effect on a scenic vista?

There are no scenic vistas within the project area. The Project, therefore, would not have a substantial adverse effect on a scenic vista. **(No Impact)**

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

The site is not visible from a scenic highway. The Project would not substantially damage scenic resources within a state scenic highway. **(No Impact)**

4.1.3.3 If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

The Project is in a highly urbanized area. The Project does not conflict with any of the City of Vernon General Plan policies that may be applicable to governing scenic quality within the City. **(Less Than Significant Impact)**

4.1.3.4 Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

The Project is not incorporating large glass panels that would significantly increase glare. The Project would include pole mounted site light fixtures along the site perimeter, as well as along the perimeter of the GEP utility yard, and outdoor security lighting along the GEP building and driveway entrances. Security lighting and parking lot lighting will be indirect and diffused. The Project, therefore, would not create a new source of substantial light or glare, nor would it adversely affect day or nighttime views in the area. **(Less than Significant Impact)**

4.1.4 Project Design Measures

No Project Design Measures are required to support a finding by the Commission that the Project will not result in significant adverse visual resource or aesthetic impacts.

4.1.5 Governmental Agencies

The only governmental agency with regulatory authority applicable to aesthetics and visual resources for the Project would be the City of Vernon. Compliance with the City of Vernon requirements will be ensured through its design review process.

4.2 AGRICULTURAL AND FORESTRY RESOURCES

4.2.1 CEQA Checklist

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Agriculture and Forest Resources				
Would the project:				
1) 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?	☐	☐	☐	☒
2) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
3) 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 zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
4) Result in a loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
5) Involve other changes in the existing environment which, 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?	☐	☐	☐	☒

4.2.2 Environmental Setting

Other than food processing industrial facilities, there are no agricultural uses within the City of Vernon.

4.2.3 Environmental Impact Discussion

For purposes of analyzing potential agricultural impacts, it is not necessary or prudent to separate the potential impacts of the VBGF and the GEP. Therefore, the following analysis uses the term “Project” which encompasses construction and operation of the VBGF, the GEP and all related ancillary facilities.

4.2.3.1 Would 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?

The Project Site is designated as Industrial Land and was formerly occupied by a meat processing facility. It is not designated as Prime Farmland, Farmland of Statewide or Local Importance and therefore no conversion of any protected farmland would occur if developed. **(No Impact)**

4.2.3.2 Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

The Project Site and adjacent property is not designated by the City of Vernon General Plan or Zoning Ordinance as existing or proposed zoning for agricultural uses, and is not subject to a Williamson Act contract. **(No Impact)**

4.2.3.3 Would 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 zoned Timberland Production (as defined by Government Code Section 51104(g))?

The Project Site and surrounding property is not zoned as forest or timberland. Therefore, would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. **(No Impact)**

4.2.3.4 Would the project result in a loss of forest land or conversion of forest land to non-forest use?

No forestland is located on or near the site. The Project, therefore, would not result in a loss of forest land or conversion of forest land to non-forest use. **(No Impact)**

4.2.3.5 Involve other changes in the existing environment which, 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?

As described above, no farmland or forest land is located on or near the site. The Project, therefore, would not involve other changes in the existing environment which could result in conversion of farmland, to non-agricultural use or conversion of forest land to non-forest use. **(No Impact)**

4.2.4 Project Design Measures

No Project Design Measures are required to support a finding by the Commission that the Project will not result in significant impacts to agricultural resources.

4.2.5 Governmental Agencies

There are no government agencies with agricultural or forest service-related regulatory authority applicable to the Project.

4.3 AIR QUALITY

This section presents the evaluation of emissions and impacts resulting from the construction and operation of the VGBF and the GEP. This section also presents the proposed mitigation measures to be used in order to minimize emissions and limit impacts to below established significance thresholds. This section is based upon an analysis prepared by Atmospheric Dynamics, Inc. in accordance with the CEC application requirements for a SPPE pursuant to the power plant siting regulations, and the rules and regulations of the South Coast Air Quality Management District (SCAQMD or District). This analysis is but one part of a larger analysis, which seeks an SPPE from the CEC and an Authority to Construct from the SCAQMD.

Appendix B includes the following sub-appendices which contain support data for the Air Quality and Public Health analyses.

Sub-Appendix AQ1 – Emissions Data for Criteria and Toxic Pollutants

Sub-Appendix AQ2 – Equipment Specifications and Emissions Control System Information

Sub-Appendix AQ3 – Air Quality Impact Modeling Support Data

Sub-Appendix AQ4 – Construction and Miscellaneous Emissions Evaluations and Support Data

Sub-Appendix AQ5 – Risk Assessment Support Data

4.3.1 CEQA Checklist

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Air Quality				
Would the project:				
1) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
2) 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?	☐	☒	☐	☐
3) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
4) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

4.3.2 Environmental Setting

The GEP is located within the SCAQMD jurisdiction. Section 2 section contains a detailed description of the location. Appendix B, Figures AQ3-1 and AQ3-2 in Sub-Appendix AQ3 show the site in the regional and nearfield views. The site is comprised of two (2) adjacent land parcels, i.e., APN 6303-005-035 and -036. The parcel addresses are 3049 and 3163 East Vernon Ave., Vernon, Ca. (Los Angeles County).

The SCAQMD consists of the four-county Basin that includes Orange, and the non-desert portions of Los Angles, Riverside, and San Bernardino counties, the Riverside County portions of the SSAB, and the MDAB. The SCAQMD is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east.

The climate in the SCAQMD generally is characterized by sparse winter rainfall and hot summers tempered by cool ocean breezes. A temperature inversion, a warm layer of air that traps the cool marine air layer underneath it and prevents vertical mixing, is the prime factor that allows contaminants to accumulate in the SCAQMD. The mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, and Santa Ana winds. The climate of the area is not unique, but the high concentration of mobile and stationary sources of air contaminants in the western portion of the SCAQMD in addition to

the mountains, which surround the perimeter of the District, contribute to poor air quality in the region.

Temperature affects the air quality of the region in several ways. Local winds are the result of temperature differences between the relatively stable ocean air and the uneven heating and cooling that takes place in the SCAQMD due to a wide variation in topography. Temperature also has a major effect on vertical mixing height and affects chemical and photochemical reaction times. The annual average temperatures vary little throughout the SCAQMD, averaging 75 degrees F. The coastal areas show little variation in temperature on a year-round basis due to the moderating effect of the marine influence. On average, August is the warmest month while January is the coolest month. Most of the annual rainfall in the SCAQMD falls between November and April. Annual average rainfall varies from nine inches in Riverside to 14 inches in downtown Los Angeles.

Wind flow patterns play an important role in the transport of air pollutants in the SCAQMD. The winds flow from offshore and blow eastward during the daytime hours. In summer, the sea breeze starts in mid-morning, peaks at 10-15 miles per hour, and subsides after sundown. There is a calm period until about midnight. At that time, the land breeze begins from the northwest, typically becoming calm again about sunrise. In winter, the same general wind flow patterns exist except that summer wind speeds average slightly higher than winter wind speeds. This pattern of low wind speeds is a major factor that allows the pollutants to accumulate in the SCAQMD. The normal wind patterns in the SCAQMD are interrupted by the unstable air accompanying the passing storms during the winter and infrequent strong northeasterly Santa Ana wind flows from the mountains and deserts north of the SCAQMD.

Please see Section 4.8 of this SPPE Application for more details on the project's greenhouse gas emissions.

4.3.2.1 Overview of Existing Air Quality

In 1970, the United States Congress instructed the US EPA to establish standards for air pollutants, which were of nationwide concern. This directive resulted from the concern of the effects of air pollutants on the health and welfare of the public. The resulting Clean Air Act (CAA) set forth air quality standards to protect the health and welfare of the public. Two levels of standards were promulgated – primary standards and secondary standards. Primary national ambient air quality standards (NAAQS) are "those which, in the judgment of the administrator [of the US EPA], based on air quality criteria and allowing an adequate margin of safety, are requisite to protect the public health (state of general health of community or population)." The secondary NAAQS are "those which in the judgment of the administrator [of the US EPA], based on air quality criteria, are requisite to protect the public welfare and ecosystems associated with the presence of air pollutants in the ambient air." To date, NAAQS have been established for seven criteria pollutants as follows: sulfur dioxide (SO2), carbon monoxide (CO), ozone (O3), nitrogen dioxide (NO2), sub 10-micron particulate matter (PM10), sub 2.5-micron particulate matter (PM2.5), and lead (Pb).

The criteria pollutants are those that have been demonstrated historically to be widespread and have a potential for adverse health impacts. US EPA developed comprehensive documents detailing the basis of, or criteria for, the standards that limit the ambient concentrations of these pollutants. The State of California has also established ambient air quality standards (AAQS) that further limit the allowable concentrations of certain criteria pollutants. Review of the established air quality standards are undertaken by both US EPA and the State of California on a periodic basis. As a result of the periodic reviews, the standards have been updated, i.e., amended, additions, and deletions, over the ensuing years to the present.

Each federal or state ambient air quality standard is comprised of two basic elements: (1) a numerical limit expressed as an allowable concentration, and (2) an averaging time which specifies the period over which the concentration value is to be measured. Table 4.3-1 presents the current federal and state ambient quality standards.

Table 4.3-1: California and National Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards Concentration	National Standards Concentration
Ozone	1 hour	0.09 ppm (180 µg/m^3)	-
	8 hours	0.070 ppm (137 µg/m^3)	0.070 ppm (137 µg/m^3)
Carbon monoxide (CO)	8 hours	9.0 ppm (10,000 µg/m^3)	9 ppm (10,000 ug/m^3)
	1 hour	20 ppm (23,000 µg/m^3)	35 ppm (40,000 ug/m^3)
Nitrogen dioxide (NO_2)	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)	0.053 ppm (100 µg/m^3)
	1 hour	0.18 ppm (339 µg/m^3)	100 ppb (188 µg/m^3)
Sulfur dioxide (SO_2)	Annual Arithmetic Mean	-	0.030 ppm (80 µg/m^3)
	24 hours	0.04 ppm (105 µg/m^3)	0.14 ppm (365 µg/m^3)
	3 hours	-	0.5 ppm (1300 µg/m^3)
	1 hour	0.25 ppm (655 µg/m^3)	75 ppb (196 µg/m^3)
Suspended particulate matter or PM10 (10 micron)	24 hours	50 µg/m^3	150 µg/m^3
	Annual Arithmetic Mean	20 µg/m^3	-
Suspended particulate matter or PM2.5 (2.5 micron)	Annual Arithmetic Mean	12 µg/m^3	12.0 µg/m^3 (3-year average)
	24 hours	-	35 µg/m^3
Sulfates	24 hours	25 µg/m^3	-
Lead (Pb)	30 days	1.5 µg/m^3	-
	Calendar Quarter	-	1.5 µg/m^3
	Rolling 3-month Average	-	0.15 µg/m^3

ppm = parts per million, ppb=parts per billion, µg/m^3 = micrograms per cubic meter (CARB 2016)

Brief descriptions of health effects for the main criteria pollutants are as follows.

Ozone

Ozone is a reactive pollutant, which is not emitted directly into the atmosphere, but is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving precursor organic compounds (POC) and oxides of nitrogen (NO_x). POC and NO_x are known as precursor compounds for ozone. Significant ozone production generally requires ozone precursors to be present in a stable atmosphere with strong sunlight for approximately three hours. Ozone is a regional air pollutant because it is not emitted directly by sources but is formed downwind of sources of POC and NO_x under the influence of wind and sunlight. Short-term exposure to ozone can irritate the eyes and cause constriction of the airways. Besides causing shortness of breath, ozone can aggravate existing respiratory diseases such as asthma, bronchitis, and emphysema.

Carbon Monoxide

Carbon monoxide is a non-reactive pollutant that is a product of incomplete combustion. Ambient carbon monoxide concentrations generally follow the spatial and temporal distributions of vehicular traffic and are also influenced by meteorological factors such as wind speed and atmospheric mixing. Under inversion conditions, carbon monoxide concentrations may be distributed more uniformly over an area out to some distance from vehicular sources. When inhaled at high concentrations, carbon monoxide combines with hemoglobin in the blood and reduces the oxygen-carrying capacity of the blood. This results in reduced oxygen reaching the brain, heart, and other body tissues. This condition is especially critical for people with cardiovascular diseases, chronic lung disease or anemia, as well as fetuses.

Particulate Matter (PM10 and PM2.5)

PM10 consists of particulate matter that is 10 microns or less in diameter (a micron is one-millionth of a meter), and fine particulate matter, PM2.5, which consists of particulate matter 2.5 microns or less in diameter. Both PM10 and PM2.5 represent fractions of particulate matter, which can be inhaled into the air passages and the lungs and can cause adverse health effects. Particulate matter in the atmosphere results from many kinds of dust- and fume-producing industrial and agricultural operations, combustion, and atmospheric photochemical reactions. Some of these operations, such as demolition and construction activities, contribute to increases in local PM10 and PM2.5 concentrations, while others, such as stationary source emissions, vehicular traffic, etc. affect regional PM10 and PM2.5 concentrations.

Nitrogen Dioxide and Sulfur Dioxide

Nitrogen dioxide (NO_2) and sulfur dioxide (SO_2) are two gaseous compounds within a larger group of compounds, NO_x and sulfur oxides (SO_x), respectively, which are products of the combustion of fuel. NO_x and SO_x emission sources can elevate local NO_2 and SO_2 concentrations, and both are regional precursor compounds to particulate matter. As

described above, NO_x is also an ozone precursor compound and can affect regional visibility. (Nitrogen dioxide is the “whiskey brown” colored gas readily visible during periods of heavy air pollution.) Elevated concentrations of these compounds are associated with increased risk of acute and chronic respiratory disease. Additionally, sulfur dioxide and nitrogen oxides emissions can be oxidized in the atmosphere to eventually form sulfates and nitrates, which contribute to acid rain.

Lead

Gasoline-powered automobile engines used to be the major source of airborne lead in urban areas. Excessive exposure to lead concentrations can result in gastrointestinal disturbances, anemia, kidney disease, and in severe cases of neuromuscular and neurological dysfunction. The use of lead additives in motor vehicle fuel has been eliminated in California, and lead concentrations have declined substantially as a result.

Hydrogen Sulfide

Hydrogen sulfide (H_2S) is a naturally occurring gas contained, as a for-instance, in geothermal steam from the Geysers. H_2S has a “rotten egg” odor at concentration levels as low as 0.005 parts per million (ppm). The state 1-hour standard of 0.03 ppm is set to reduce the potential for substantial odor complaints. At concentrations of approximately 10 ppm, exposure to H_2S can lead to health effects such as eye irritation.

Toxic/Hazardous Air Contaminants

“Toxic air contaminants” (TACs) are air pollutants that are believed to have carcinogenic or adverse non-carcinogenic effects but do not have a corresponding ambient air quality standard. There are hundreds of different types of toxic air contaminants, with varying degrees of toxicity. Sources of toxic air contaminants include industrial processes such as petroleum refining, electric utility and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust.

Toxic air contaminants are regulated under both state and federal laws. Federal laws use the term “Hazardous Air Pollutants” (HAPs) to refer to the same types of compounds referred to as TACs under state law. Both terms generally encompass the same compounds, although the California TAC listing is considerably more extensive than the federal HAPs list. For the sake of consistency, this analysis will use TACs when referring to these compounds rather than HAPs. Under the Clean Air Act Amendments of 1990, approximately 190 substances are designated as TACs. Appendix AQ1 presents the annual emissions of the TACs.

Attainment Status

The EPA designates the attainment status of regional areas with respect to federal air quality standards, while the California Air Resources Board (CARB) designates the attainment status of regional areas of California with respect to state air quality standards. Local air districts in California play a vital role is such designations at both levels. These

classifications depend on whether the monitored ambient air quality data shows compliance, or non-compliance with the ambient air quality standards, respectively. Unclassified means the area is in attainment or there is insufficient data to determine the classification. The Project site is located within Los Angeles County, under the jurisdiction of the SCAQMD. Table 4.3-2 summarizes the attainment status for each of the criteria pollutants in the SCAQMD with regards to both the federal and state standards.

Table 4.3-2: Attainment Status for the South Coast AQMD

Pollutant	Averaging Time	Federal Designation NAAQS	State Designation CAAQS
Ozone	1 Hour 8 Hour	Non-Attainment Extreme Non-Attainment Extreme	Non-Attainment Non -Attainment
CO	1 Hour 8 Hour	Attainment Maintenance Attainment Maintenance	Attainment Attainment
NO_2	1 Hour Annual AM	Unclassified/Attainment Attainment Maintenance	Attainment Attainment
SO_2	1 Hour 24 Hour Annual AM	Unclassified/Attainment Unclassified/Attainment Unclassified/Attainment	Attainment Attainment Attainment
PM10	24 Hour Annual AM	Attainment Maintenance -	Non-Attainment Non-Attainment
PM2.5	24 Hour Annual AM	Non-Attainment Serious Non-Attainment Serious	Non-Attainment Non-Attainment
Lead	30 day Avg Calendar Qtr. Rolling 3 Month Avg	Non-Attainment (Partial) - 	Attainment - -
Visibility Reducing PM (VRP)	8 Hour	-	-
Sulfates	24 Hour	-	Attainment
H_2S	1 Hour	-	Attainment
Vinyl Chloride	24 Hour	-	Attainment
Source: SCAQMD website, 12/2024.			

4.3.2.2 Existing Conditions

The existing air quality conditions in the project area are summarized in Tables 4.3-3. Table 4.3-4 provides the background ambient air concentrations of criteria pollutants for the previous three (3) years as measured at a certified monitoring station near the project site (CELA Site #060371103, 1630 N. Main St. Los Angeles, CA). To evaluate the potential for air quality degradation as a result of the project, modeled project air concentrations are combined with the respective background concentrations as presented in Table 4.3-4 and used for comparison to the NAAQS and CAAQS.

Table 4.3-3: Measured Ambient Air Quality Concentrations by Year

Pollutant	Units	AvgTime	Concentration Value Type	2021	2022	2023
Ozone	ppm	1-Hr	CAAQS-1st Highs/3-yr Max	0.099	0.138	0.097
Ozone	ppm	8-Hr	CAAQS-1st Highs/3-yr Max	0.085	0.09	0.082
Ozone	ppm	8-Hr	NAAQS-4th Highs/3-yr Avg	0.068	0.073	0.075
NO_2	ppb	1-Hr	CAAQS-1st Highs/3-yr Max	77.8	75.1	64.3
NO_2	ppb	1-Hr	NAAQS-98th%s/3-yr Avg	57.3	56.9	51.8
NO_2	ppb	Annual	CAAQS/NAAQS-AAM/3-yr Max	17.7	18.5	16.2
CO	ppm	1-Hr	CAAQS-1st Highs/3-yr Max	2.0	1.7	1.4
			NAAQS-2nd Highs/3-yr Max	1.9	1.5	1.4
CO	ppm	8-Hr	CAAQS-1st Highs/3-yr Max	1.6	1.5	1.2
			NAAQS-2nd Highs/3-yr Max	1.5	1.4	1.2
SO_2	ppb	1-Hr	CAAQS-1st Highs/3-yr Max	2.2	6.5	7.7
			NAAQS-99th%s/3-yr Avg	2.0	2.3	2.0
		24-Hr	CAAQS-1st Highs/3-yr Max	1.2	1.2	2.3
			NAAQS-2nd Highs/3-yr Max	1.0	1.1	0.9
		Annual	CAAQS/NAAQS-AAM/3-yr Max	0.39	0.26	0.17
PM10	$\mu g/m^3$	24-Hr	CAAQS-1st Highs/3-yr Max	64	60	57
			NAAQS-2nd Highs/3-yr 4th High	63.8	59.6	56
		Annual	CAAQS-AAM/3-yr Max	25.5	28.9	24.3
PM2.5	$\mu g/m^3$	24-Hr	NAAQS-98th%/3-yr Avg	44.8	21.9	23.4
		Annual	CAAQS –AAM/3-yr Max	12.77	10.94	10.25
			NAAQS-AAM/3-yr Avg	12.77	10.94	10.25

Notes: Values for 1630 N. Main St. Los Angeles, CA, the nearest SCAQMD monitoring site (all applicable pollutants measured) Site #060371103 and represents area Source Receptor Area #1 (SRA#1).
Data sources: EPA AIRS website and SCAQMD Historical AQ Data (12/2024), and CARB ADAM (12/2024).

Table AQ3-1 provided in Appendix B, Sub-Appendix AQ-3 presents a detailed summary of the air quality monitoring data prepared by SCAQMD staff based on data from EPA AIRs, SCAQMD historical data, and CARB ADAM websites.

Table 4.3-4: Background Air Quality Data Summary

Pollutant and Averaging Time	AQ Data Value	Units	Background Value ($\mu g/m^3$)
Ozone – 1-hour Maximum CAAQS	0.138	ppm	270.9
Ozone – 8-hour Maximum CAAQS	0.09	ppm	117.8
Ozone – 3-year average 4th High NAAQS	0.072	ppm	141.4
PM10 – 24-hour Maximum CAAQS	64	$\mu g/m^3$	64
PM10 - 24-hour 3-year 4th High NAAQS	59.6	$\mu g/m^3$	59.6
PM10 – Annual Maximum CAAQS	28.9	$\mu g/m^3$	28.9
PM2.5 – 3-Year Average of Annual 24-hour 98th Percentiles NAAQS	30.0	$\mu g/m^3$	30.0
PM2.5 – Annual Maximum CAAQS	12.77	$\mu g/m^3$	12.77
PM2.5 - 3-Year Average of Annual Values NAAQS	11.32	$\mu g/m^3$	11.32
CO – 1-hour Maximum CAAQS	2.0	ppm	2290
CO - 1-hour High, 2nd High NAAQS	1.9	ppm	2176
CO – 8-hour Maximum CAAQS	1.6	ppm	1832
CO - 8-hour High, 2nd High NAAQS	1.5	ppm	1718
NO_2 – 1-hour Maximum CAAQS	77.8	ppb	146.4
NO_2 - 3-Year Average of Annual 98th Percentile 1-hour Daily Maxima NAAQS	55.33	ppb	104.1
NO_2 – Annual Maximum CAAQS/NAAQS	18.5	ppb	34.8
SO_2 – 1-hour Maximum CAAQS	7.7	ppb	20.2
SO_2 - 3-Year Average of Annual 99th Percentile 1-hour Daily Maxima NAAQS	2.1	ppb	5.5
SO_2 – 3-hour Maximum NAAQS (Not Available - Used 1-hour Maxima)	7.7	ppb	20.2
SO_2 – 24-hour Maximum CAAQS	2.3	ppb	6.0
SO_2 - 24-hour High, 2nd High NAAQS	1.1	ppb	2.9
SO_2 – Annual Maximum NAAQS	0.39	ppb	1.0

Values for 1603 N. Main Street, Los Angeles, CA, the nearest SCAQMD monitoring site (all applicable pollutants measured). Monitoring Site # 060371103.
Conversion of ppm/ppb measurements to $\mu g/m^3$ concentrations based on:
$\mu g/m^3$ = ppm x 40.9 x MW, where MW = 48, 28, 46, and 64 for ozone, CO, NO_2, and SO_2, respectively.

4.3.2.3 Regulatory Background

Federal, state, and regional agencies regulate air quality within the SCAQMD, where the Project site is located.

Federal

At the federal level, EPA is responsible for overseeing implementation of the federal Clean Air Act and its subsequent amendments (CAA). As required by the federal CAA, NAAQS have been established for the criteria pollutants described above.

New Source Performance Standards

The Project will be subject to the applicable New Source Performance Standards (NSPS) standards that are identified below. A description of the applicant's compliance plan to meet each standard is included.

40 CFR Part 60, Subpart IIII

Standards of Performance for Stationary Compression Ignition Internal Combustion Engines became effective July 11, 2006. The diesel engines are subject to Subpart IIII. The proposed engines are EPA Tier 4 rated and will be equipped with Best Available Control Technology (BACT) to meet Tier 4 emissions standards.

Compression Ignition (CI) Diesel Engines Emission Standards

Based on 40 CFR 60.4202, emergency CI engines rated at > 560 kW are subject to the emissions standards in 40 CFR 89.112, Table 1, as follows:

- Tier 4 – NO_x 0.5 g/bhp-hr
- Tier 4 – NMHC 0.14 g/bhp-hr
- Tier 4 – CO 2.6 g/bhp-hr
- Tier 4 – PM10/2.5 0.02 g/bhp-hr

The proposed diesel-fired engines will be equipped with the "ecoCube" or "Miratech" catalyst systems (or equivalents) and diesel particulate filters (DPF) which will result in the engines meeting the EPA/CARB Tier 4 emissions standards, as well as the BACT requirements of the SCAQMD for engines rated at greater than 1000 bhp.

40 CFR Part 60 Subpart ZZZZ

The proposed CI engines are exempt from the requirements of Subpart ZZZZ (63.6590 (c)(1)) if the engines comply with the emissions limitations specified in 40 CFR 60 Subpart IIII. See discussion above.

SCAQMD Air Quality Standards and Regulations

The section briefly describes the regulations which would apply to the GEP as set forth in the SCAQMD Rules and Regulations. The project will require a New Source Review permit with the SCAQMD.

SCAQMD Regulation 13 – New Source Review (NSR)

This rule applies to all new or modified sources requiring a Permit to Operate for any new source with actual or potential emissions above the rule trigger limits. The rule also specifies when BACT is required, when offsets are required and the offset ratios, as well the requirements for the required impact analyses, etc.

BACT Requirements, Rule 1303(a) and (SCAQMD Policy)

A review of BACT for CI-Stationary Emergency Standby engines rated at greater than 1000 BHP (SCAQMD Policy Memo, BACT Determination for Emergency Diesel Back-Up Engines Greater than or equal to 1,000 Brake Horsepower, September 2022) indicates that BACT for engines in the stated size range must be compliance with the EPA Tier 4-Final standards as follows:

- PM 0.02 g/bhp-hr
- NO_x 0.50 g/bhp-hr
- NMHC 0.14 g/bhp-hr
- CO 2.61 g/bhp-hr

The BACT policy was re-iterated in the source testing guidance by the SCAQMD on 12/29/2023 for engines rated equal to or greater than 1000 BHP. The engines proposed for the VBGF, which are all rated at greater than 1,000 BHP meet these requirements, so BACT is satisfied per Rule 1303(a). Additionally, the use of diesel particulate filters on both engine types will reduce the PM emissions to less than or equal to 0.02 g/bhp-hr (the Tier 4 compliance level).

NSR Offset Requirements and Modeling Requirements per Rule 1304(a)(4)

Emergency engines are exempt from acquiring emissions offsets and from the air quality impact modeling requirements per Rule 1304(a)(4). Notwithstanding the foregoing an air quality impact analysis has been prepared (see the section below titled Air Quality Impact Analysis).

SCAQMD Regulation 14, Rule 1401 – New Source Review of Toxic Air Contaminants

This rule provides for the review of new and modified sources of TAC emissions to evaluate potential public exposure and health risk. The rule also specifies when toxics-BACT is required, trigger limits for further analysis based on substance specific emissions levels (both short and long term), risk assessment procedures, etc.

Per Rule 1401 (g)(1)(F) emergency engines are exempt from the requirements of section (d) of the rule. Notwithstanding the foregoing a screening health risk assessment has been prepared (see the section below titled Public Health and Health Risk Assessment).

SCAQMD Rule 1470 – Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines

This rule applies to any person who sells, offers for sale, purchases a stationary CI engine for use, or who owns or operates a stationary CI engine rated at >50 bhp in the SCAQMD. The Applicant has not identified any exemptions in section (h) of the rule that would apply to the proposed CI emergency standby engines, and as such the engines are expected to comply with all of the provisions of Rule 1470.

SCAQMD Rule 1472 – Requirements for Facilities with Multiple Stationary Emergency Stand-by Diesel-Fueled Internal Combustion Engines

This rule applies to any facility with three or more emergency stand-by CI engines rated at greater than 50 bhp. Note the following:

- Subsection (a) rule is applicable since the proposed facility will have three (3) or more ICEs rated at > 50 bhp.
- Subsection (d)(1)(B) the facility is exempt from filing a Compliance Plan (all engines will emit PM at less than 0.15 g/bhp-hr).
- Subsection (d)(2)(A) the notice of exemption will be filed pursuant to subsection (g).
- Subsections (d)(3) through (d)(6) are not applicable.
- Subsection (e) is not applicable per (e)(2) and (d)(3)(G).
- Subsections (f) through (i) are not applicable.
- Subsection (j), the exemption from the rule per Rule 1402 is not applicable since the proposed facility is NOT an existing source under Rule 1402.

The air quality and public health analysis presented herein along with the information contained in Appendix B and the required SCAQMD permit application forms shall constitute

the initial emissions reporting submittal, as well as the initial notice of exemption from the Compliance Plan provisions of the rule.

SCAQMD Rules 1701-1715 – Prevention of Significant Deterioration (PSD)

The proposed facility does not trigger the PSD requirements.

State

The California Air Resources Board (CARB) is the state agency that retains authority to regulate mobile sources throughout the state and oversees implementation of the state air quality laws and regulations, including the California Clean Air Act. CARB also establishes and revises the CAAQS.

TACs are primarily regulated through state and local risk management programs, which are designed to eliminate, avoid, or minimize the risk of adverse health effects from exposures to TACs. In the SCAQMD, the two most prominent TAC regulatory programs are the Toxics New Source Review (Regulation 14 rules) and the AB2588 Air Toxics Hot Spots Program.

Regional

The SCAQMD is the primary regional agency responsible for attaining and maintaining air quality conditions in the South Coast Air Basin (SCAB) through a comprehensive program of planning, regulation, and enforcement. Examples of the SCAQMD's primary air plans and regulations are described below.

SCAQMD Air Quality Management Plan. The Air Quality Management Plan (AQMP or Plan) is a regional blueprint for achieving air quality standards and healthful air. The 2022 AQMP represents a comprehensive analysis of emissions, meteorology, regional air quality modeling, regional growth projections, and the impact of control measures.

The U.S. Environmental Protection Agency (U.S. EPA) requires areas that do not meet a National Ambient Air Quality Standard (NAAQS or standard) to develop and submit a State Implementation Plan (SIP) for approval. SIPs are used to show how the region will meet the standard. Regions must attain NAAQS by specific dates or face the possibility of sanctions by the federal government and other consequences under the Clean Air Act (CAA). This can result in increased permitting fees, stricter restrictions for permitting new projects, and the loss of federal highway funds.

The South Coast AQMD SIPs are developed within the agency's Air Quality Management Plans (AQMPs). The most recent AQMP was developed in 2022 and addressed the 1997

8-hour and 2008 8-hour ozone standards, as well as PM2.5 standards. The 2022 AQMP is focused on attaining the 2015 8-hour ozone standard of 70 parts per billion (ppb).

The proposed facility will be in compliance with all applicable SCAQMD rules and regulations and as such it is not expected to impact the current or future implementation of the 2022 AQMP.

4.3.3 Environmental Impact Discussion

4.3.3.1 Significance Criteria

This analysis is based upon the general methodologies in the most recent SCAQMD CEQA Guidelines (last updated in March 2023) and significance thresholds for the SCAQMD, including the criteria pollutant thresholds listed in Table 4.3-5.

Table 4.3-5 South Coast AQMD Air Quality Significance Thresholds

Mass Daily Thresholds[a]		
Pollutant	**Construction**	**Operation**
NO_x	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM_{10}	150 lbs/day	150 lbs/day
$PM_{2.5}$	55 lbs/day	55 lbs/day
SO_x	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day
Toxic Air Contaminants (TACs), Odor, and GHG Thresholds		
TACs (including carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk $\geq$ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas $\geq$ 1 in 1 million Chronic & Acute Hazard Index $\geq$ 1.0 (project increment)	
Odor	Project creates and odor nuisance pursuant to South Coast AQMD Rule 402	
GHG	10,000 MT/yr CO_2eq for industrial facilities	
Ambient Air Quality Standards for Criteria Pollutants[b]		
NO_2 1-hour average annual arithmetic mean	South Coast AQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (state) 0.03 ppm (state) and 0.0534 ppm (federal)	
PM_{10} 24-hour average Annual average	10.4 ug/m^3 (construction)[c] & 2.5 ug/m^3 (operation) 1.0 ug/m^3	
$PM_{2.5}$ 24-hour average Annual average	10.4 ug/m^3 (construction)[c] & 2.5 ug/m^3 (operation) 1.0 ug/m^3	
SO_2 1-hour average 24-hour average	0.25 ppm (state) & 0.075 ppm (federal – 99th percentile)	
Sulfate 24-hour average	25 ug/m^3 (state)	
CO 1-hour average 8-hour average	South Coast AQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (state) and 35 ppm (federal) 0.15 ug/m^3 federal	
Lead 3-day average Rolling 3-month average	1.5 ug/m^3 (state) 0.15 ug/m^3 (federal)	

[a] Source: South Coast AQMD CEQA Handbook (South Coast AQMD, 2023)

[b] Ambient air quality thresholds for criteria pollutants based on South Coast AQMD Rule 1303, Table A-2 unless otherwise stated.

[c] Ambient air quality threshold based on South Coast AQMD Rule 403.

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

The Project would not conflict with or obstruct the implementation of the applicable air quality plan due to the following:

- The Project will comply with all applicable rules and regulations of the SCAQMD regarding emissions of criteria pollutants.
- The Project will comply with all applicable rules and regulations of the SCAQMD regarding emissions of toxic pollutants.
- The proposed engines of the VBGF will be certified with or comply with the applicable federal Tier 4 emissions standards for emergency standby electrical generation CI engines.
- The Project will comply with all applicable provisions of the applicable 2022 SCAQMD Air Quality Management Plan.
- The Project will obtain and maintain all required air quality related permits from the SCAQMD, and requirements imposed by the California Energy Commission.

(Less than Significant Impact)

4.3.3.3 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?

The Project would not 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, due to the following:

- The use of best management practices during the construction phase (See PDM AQ-1 below) will ensure that the emissions do not result in a cumulative considerable net increase of any non-attainment pollutants. These emissions are generally short term in nature and vary widely from day to day and are presented in the air quality analysis herein.
- The operational phase of the VBGF will apply BACT as required by the SCAQMD. Mitigation requirements under the NSR discussion above, as well as the regulatory exemptions for offset mitigation for emergency standby engines in Regulation 13 as discussed above will apply. See the air quality analysis herein.

(Less than Significant Impact with Mitigation Incorporated)

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

The Project would not expose sensitive receptors to substantial pollutant concentrations due to the following:

- The air quality impact analysis presented herein shows that the Project will not cause or contribute to a violation of any state or federal ambient air quality standard.
- The construction and operational health risk assessments presented herein indicate that the emissions of toxic air contaminants from the project processes will not cause a significant risk to any sensitive or non-sensitive receptor with respect to cancer or chronic impacts.

(Less than Significant Impact)

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

The project would not result in other emissions or odors that would adversely affect a substantial number of people due to the following:

- Similar facilities, both larger and smaller in scale, have not been identified as sources of odors that would adversely affect offsite receptors.
- The project is not one of the project types typically known as producing odors that may affect offsite receptors.
- The applicant has not identified any operational or construction practices, that are planned for use at the project site, that would generate substantial amounts of odors that would affect offsite receptors.

(Less than Significant Impact)

4.3.3.6 Project Emissions, Air Quality Impact Analysis, and Health Risk Assessment

PROJECT EMISSIONS

Construction

Project construction emissions of CO, VOCs, NOx, SO2, PM10, PM2.5, and CO2e were evaluated. Detailed construction emission calculations are presented in Appendix B, Sub-Appendix AQ4. Onsite construction emissions from construction of the project will result from site preparation and grading activities, building erection and parking lot construction activities, “finish” construction activities, and the use of onsite construction equipment. Construction emissions from the project include emissions from the VBGF and GEP. Offsite construction emissions will be derived primarily from materials transport to and from the site, worker travel, etc. Emissions from the continuous approximate 16-month construction period

were estimated using the CalEEMod program. Estimated criteria pollutant construction emissions for the project are summarized in Table 4.3-6. Construction of the project is tentatively scheduled to commence in October 2025. Construction support data and the CalEEMod analysis output are presented in Appendix B, Sub-Appendix AQ-4.

The SCAQMD CEQA Air Quality Guidelines considers exposure of sensitive receptors to air pollutant levels that result in an unacceptable cancer risk or hazard to be significant. The SCAQMD does not recommend a zone of influence around project boundaries. For purposes of operations the Applicant has relied upon the 500-foot zone stated in the Air Toxic Control Measure for Stationary CI Engines (Title 17, 93115) as well as the 500-foot zone specified in Rule 1470. Since there are no sensitive receptors within 1000 ft. of the proposed facility site (including schools), any operational limitations in 93115 or Rule 1470 will not apply to the facility.

Since construction activities are typically temporary and measures as delineated below are proposed to be implemented, and since there are no identified sensitive receptors within 1000 ft. of the site boundary, community risk impacts from construction activities would be less than significant.

Table 4.3-6: Mitigated Criteria Pollutant Emissions from Construction Activities

Scenario/Year	NO_x	CO	VOC	SO_x	PM10	PM2.5	CO_2e
Max Construction Year	2026	2026	2026	2026	2026	2026	2026
Construction Period, tons	0.91	5.28	2.79	0.011	0.25	0.079	1080.3
Max Construction Year, tons	0.65	3.51	2.14	0.0073	0.18	0.055	750.8
Avg Daily Emissions, lbs	5.0	27.0	16.5	0.06	1.4	0.42	-
SCAQMD CEQA Thresholds, lb/day	100	550	75	150	150	55	-
Exceeds Thresholds	No	No	No	No	No	No	N/A

Notes:
Construction schedule for GEP is approximately 16 months, 22 days per avg months = 352 days.
Max annual work period is 52 weeks, 5 days/week, or ~260 days.
Average daily emissions are based on the max construction year (by pollutant) as noted above.
*
Source: ADI CalEEMod analysis, January 2025.

As shown in Table 4.3-6, construction of the project would not generate VOCs, NO_x, SO_x, PM10 and PM2.5 emissions in excess of SCAQMD's numeric significance thresholds.

Operations

Operational emissions of NO_x, VOCs, CO, SO_2, PM10, PM2.5, and GHGs were evaluated. Diesel particulate matter (DPM) was the only TAC considered to result from operation of the project. Detailed operation emission calculations are presented in Appendix B, Sub-Appendix AQ1. Primary operation emissions are a result of diesel fuel combustion from the standby diesel generators, and offsite vehicle trips for worker commutes and material deliveries. Secondary operational emissions from facility upkeep, such as architectural coatings, consumer product use, landscaping, water use, waste generation, natural gas use for comfort heating, and electricity use, were considered de minimum. In addition, the facility will not be using any cooling towers. Facility cooling will be accomplished through the use of a variety of commercially available cooling technologies. Each of the primary emission sources are described in more detail below.

Stationary Sources. The projects' 40 Cummins standby diesel generators will be comprised of the following equipment:

- 38 – QSK78-G37 diesel-fired engines, each rated at 4,441 HP (~3000 kWe) at 100% Load
- 2 – Cummins QST30-G5 diesel-fired engines, each rated at 1,482 HP (~1112 kWe) at 100% Load

The generators proposed for installation are made by Cummins and will comply with the current EPA Tier 4 emissions standards. These engines will be equipped with diesel particulate filters (DPF) to reduce the diesel particulates to less than or equal to 0.02 grams/brake horse-power hour (g/bhp-hr), and catalyst systems for the control of NO_x, CO, and VOCs. The control systems result in engine emissions compliance with the EPA Tier 4 standards and with SCAQMD BACT. All of the engines would be operated routinely, i.e., readiness and maintenance testing, to ensure that they would function normally during an emergency event.

As noted above, building cooling will be accomplished by using a variety of commercially available systems. These systems are described in Appendix B, Sub-Appendix AQ1 (Tables AQ1-5 and AQ1-6).

Sub-Appendix AQ1 presents the detailed emissions calculations for the proposed engines, fuel storage tanks, and building cooling systems. Appendix B, Sub-Appendix AQ2 contains the manufacturers specification sheets for the engines, engine air pollution control systems, and the building cooling systems.

During routine readiness testing, criteria pollutants and TACs (as DPM) would be emitted directly from the generators. Criteria pollutant emissions from generator testing were quantified using information provided by the manufacturer, as specified in Appendix B, Sub-Appendix AQ1. SO_2 emissions were based on the maximum sulfur content allowed in

California diesel (15 parts per million by weight), and an assumed 100 percent conversion of fuel sulfur to SO_2. DPM emissions resulting from diesel stationary combustion were assumed equal to PM10/2.5 emissions. For conservative evaluation purposes, it was assumed that testing would occur for no more than 50 hours per year. 50 hours per year per engine is the limit specified by the Airborne Toxic Control Measure for Stationary Toxic Compression Ignition Engines (Title 17, Section 93115, CCR). The Applicant is not proposing a test schedule, i.e., hours versus load points but generally plans to test each generator one at a time. Testing will be done based upon the Applicants judgment, taking into account the manufacturers recommendations, staff availability, and need. Maintenance and readiness testing may occur at loads ranging from 25 to 100% load. For purposes of this application, emissions were assumed to occur at 100% load. Tables AQ1-1 and AQ1-2 in Appendix B, Sub-Appendix AQ1 present the engine emissions based upon the 100% load point, number of engines tested, etc. The engines were evaluated for the following emissions scenarios:

- Cummins QSK78 Engines:
  - Each large engine running for 150 hours per year for Declared Emergency operations, at 100% load, at the guaranteed emissions levels from the Tier 4 control systems.
  - Each large engine running for 50 hours per year for Maintenance and Readiness operations, at 100% load, using composite emissions factors to address both uncontrolled and controlled emissions during such testing.
- Cummins QST30 Engines:
  - Each small engine running for 150 hours per year for Declared Emergency operations, at 100% load, at the guaranteed emissions levels from the Tier 4 control systems.
  - Each small engine running for 50 hours per year for Maintenance and Readiness operations, at 100% load, using composite emissions factors to address both uncontrolled and controlled emissions during such testing.

The tables which follow present emissions summaries for the two engine types for each of the scenarios noted above in terms of the worst case hourly, daily, and annual emissions. Maximum daily emissions are based on the assumption that only eight (8) of the engines will be tested on any day (and the eight (8) engines will not be run concurrently). The eight (8) engine test day is evaluated using the large QSK78 engines which would represent the worst case scenario for a maintenance and readiness test day.\

Table 4.3-7: Emergency Operations Emissions Summary for QSK78 and QST30 Engines

Period	NO_x	CO	VOC	SO_2	PM10/2.5	CO_2e
QSK78						
Max Hourly, lbs	156.65	814.59	43.86	1.57	6.27	-
Max Daily, lbs	3759.66	19550.23	1052.70	37.60	150.39	-
Max Annual, tons	11.75	61.09	3.29	0.117	0.47	11096.41
QSK78 as defined above. 150 hrs/yr emergency Ops. All non-redundant engines in operation.						
QST30						
Max Hourly, lbs	3.27	16.99	0.91	0.03	0.13	-
Max Daily, lbs	78.41	407.76	21.96	0.78	3.14	-
Max Annual, tons	0.25	1.27	0.07	0.002	0.01	245.45
QST30 as defined above. 150 hrs/yr emergency Ops. All non-redundant engines in operation.						

Table 4.3-8: M&R Testing Emissions Summary for QSK78 and QST30 Engines

Period	NO_x	CO	VOC	SO_2	PM10/2.5	CO_2e
QSK78						
Single Engine Max Hourly, lbs	11.55	25.46	1.64	0.05	0.196	-
8 Engines Max Daily, lbs	92.43	203.65	13.10	0.39	1.57	-
All Engines Max Annual, tons	10.98	24.18	1.56	0.05	0.19	4392.33
Maintenance/Readiness operations, 50 hrs/yr, as defined above.						
QST30						
Single Engine Max Hourly, lbs	3.86	8.50	0.55	0.016	0.065	-
2 Engines Max Daily, lbs	7.71	17.0	1.1	0.033	0.131	-
All Engines Max Annual, tons	0.19	0.42	0.03	0.001	0.003	81.82
Maintenance/Readiness operations, 50 hrs/yr, as defined above.						

Table 4.3-9: Emergency Operations Emissions Summary for QSK78 and QST30 Engines

Period	NO_x	CO	VOC	SO_2	PM10/2.5	CO_2e
QSK78						
Max Annual, tons	11.75	61.09	3.29	0.117	0.47	11096.41
Emergency Ops.						
QST30						
Max Annual, tons	0.25	1.27	0.07	0.002	0.01	245.45
Facility Total, tons/yr	12.0	62.36	3.36	0.119	0.48	11341.9
Emergency Ops. Redundant engines do not operate during emergencies.						

Table 4.3-10: M&R Testing Emissions Summary for QSK78 and QST30 Engines

Period	NO_x	CO	VOC	SO_2	PM10/2.5	CO_2e
QSK78						
Max Annual, tons	10.98	24.18	1.56	0.047	0.186	4392.33
M&R Testing.						
QST30						
Max Annual, tons	0.19	0.42	0.03	0.001	0.003	81.82
Facility Total, tons/yr	**11.17**	**24.60**	**1.59**	**0.048**	**0.189**	**4474.2**
M&R Testing.						

Table 4.3-11 presents maximum daily and annual emissions data for the various testing scenarios in comparison to the SCAQMD CEQA significance thresholds.

Table 4.3-11: Facility Scenario Emissions and SCAQMD CEQA Significance Levels (M&R Testing)

Scenario	Lbs/Day					
	NO_x	**CO**	**VOC**	**SO_2**	**PM10**	**PM2.5**
SCAQMD CEQA Thresholds	55	550	55	150	150	55
Worst Case Daily Engine Emissions[1]	92.43	203.65	13.1	0.4	1.57	1.57
Fuel VOC Losses	-	-	0.104	-	-	-
Daily Emissions	92.43	203.65	13.2	0.4	1.57	1.57
Significance Threshold Exceeded	Yes	No	No	No	No	No
[1] M&R testing day of 8 of the large QSK78 engines.						

Fuel Storage (Working and Breathing) VOC Emissions

Each pair of the QSK78 engines will share a 12,000 gallon diesel fuel storage tank, for a total of 19 tanks. In addition, the two (2) QST30 engines located in the administration areas of each building, will each have its own dedicated 3,000-gallon diesel fuel storage tank. Total onsite fuel storage capacity will be approximately 234,000 gallons. VOC working and breathing losses for the fuel tanks are presented in Appendix B, Sub-Appendix AQ-1, and summarized as follows:

- Total VOC losses (all tanks) = 0.019 tpy or ~0.104 lbs/day.

Building Cooling Systems

Refrigerant emissions from system estimated leakage rates are presented in Appendix B, Sub-Appendix AQ-1. These losses were estimated to be as follows:

Estimated Total GHG CO2e emissions = 828.156 Mtons/yr.

The following should be noted with respect to Table 4.3-11 above.

1. NO_x emissions exceed the SCAQMD CEQA significance levels on the days when 8 of the large QSK78 engine M&R tests occur (total emissions from all engines). This is not a significant CEQA impact because further air quality modeling analysis described below shows that the project modeled NOx emissions when added to the background concentrations for NOx comply with, will not cause or contribute to exceedance of the NAAQS and CAAQS.
2. The emissions of NO_x, with the application of BACT reduces emissions to

maximum extent based on current SCAQMD BACT requirements. As noted above, the facility is exempt from the emissions offset provisions of the SCAQMD rules and regulations.

Table 4.3-12 presents the summation of emissions for all engines for the maximum of the scenarios noted above, i.e., the 200 hours per year criteria per the SCAQMD permitting policy criteria, and the annual hourly exemption limits as specified in Rule 1304.

Table 4.3-12 SCAQMD 200 Hours per Year Emissions Summation (Tons per year)

Engines	NO_x	CO	VOC	SO_2	PM10/2.5	CO_2e
QSK78 + QST30	23.16	86.98	4.94	0.167	0.67	15816
Summation for both engine types. Emergency ops plus M&R Testing ops.						

Table 4.3-14 presents the hourly and annual fuel use values for the maximum operational scenario as outlined above.

Table 4.3-14 Engine Fuel Use Values (M&R Testing Scenario)

Scenario	QSK78	QST30
	Fuel Use, gallons (per engine basis)	
Maximum Annual, gals/yr	10200	3610
Maximum Hourly, gals/hr	204	72.2
Total Annual Fuel Use (All Engines)		
Annual Fuel Use, gals/yr	394,820	

Miscellaneous Operational Emissions

Miscellaneous emissions from the project operational activities (subsequent to full buildout) such as worker travel, deliveries, energy and fuel use for facility electrical, heating and cooling needs, periodic use of architectural coatings, landscaping, etc. were evaluated by CalEEMod. These emissions are presented in Table 4.3-15.

Table 4.3-15: Miscellaneous Operational Emissions

Scenario	Lbs/Day					
	NO_x	CO	VOC	SO_2	PM10	PM2.5
SCAQMD CEQA Thresholds, lb/day	55	550	55	150	150	55
Lbs/avg day	2.2	3.85	13.1	0.017	0.72	0.30
Exceeds Thresholds	No	No	No	No	No	No
Note: Assumes full buildout and data center is manned 365 days/yr. **This table does NOT include the emissions from the emergency engines.**						

All source category includes, mobile worker travel, deliveries, energy use, fuel use, waste disposal, water use, and miscellaneous area sources.
Source: ADI CalEEMod analysis, Jan 2025.

GHG Operations Emissions

A summary of GHG operational emissions is as follows:

- Miscellaneous Operations (area, energy, mobile, waste, water) = 1616 Mtons CO_2e/yr
- Emergency Engines (M&R Testing only) = 4058.2 Mtons CO_2e/yr
- Refrigerant Losses = 828.16 Mtons CO_2e/yr
- 99 MW of energy use, 8760 hrs/yr, City of Vernon Public Utility (VPU) 2023 Carbon Intensity Factor 641 lbs CO2/Mw-hr = 252,109.2 Mtons CO_2e/yr (see note which follows)

(Note: The emissions noted above, i.e., 252,109.2 Mtons CO_2e/yr are not emitted at the GEP Vernon facility. These emissions result from power generation across the VPU system, and as such they are reported by VPU on a specific generating facility basis. These emissions are not part of the GEP Vernon facility inventory. In addition, it should not be implied that "new" generation capacity will be required to be added to the VPU system to supply the data center needs. Power content data from: https://www.cityofvernon.org/government/public-utilities/regulatory-reports

Total annual CO_2e emissions from facility operations are: 6,502.4 Mtons CO_2e/Yr. This value is below the SCAQMD significance level of 10,000 Mtons/yr for operations.

Please See Section 4.8 for a complete discussion of potential GHG impacts.

Air Quality Impact Analysis

The 11.55-acre project site (two adjacent parcels), located at 3049/3163 East Vernon Ave. in the City of Vernon (Los Angeles County), is currently a vacant undeveloped parcel. The project proposes to construct the following elements;

- a 283,836 sq.ft. data center building Bldg 1 (3-story),
- a 283,836 sq.ft. data center building Bldg 2 (3-story),
- electrical substation areas,
- ground level parking and internal access roadways, and,
- VBGF comprised of 40 diesel-fired backup electrical generators (as described above)

There are no existing structures on the site, therefore no demolition is required to be undertaken at the site.

The GEP buildings would house computer servers for private clients in a secure and environmentally controlled structure. The VBGF would be designed to provide a maximum of 99 megawatts (MW) of electrical load and Information Technology (IT) power, i.e., 49.5 MW per data center building.

Modeling Overview

The evaluation of the potential air quality impacts and health risks were based on the estimate of the ambient air concentrations that could result from GEP air emission sources. This section discusses the selection of the dispersion model, the data that was used in the dispersion model (pollutants modeled with appropriate averaging times, source characterization, building downwash, terrain, and meteorology), etc.

Assessments of ambient concentrations resulting from pollutant emissions (called air quality impacts) are typically conducted using USEPA-approved air quality dispersion models. These models are based on mathematical descriptions of atmospheric diffusion and dispersion processes in which a pollutant source impact can be calculated over a given area and for a specific period of time (called averaging period). By using mathematical models, the assessment of emissions can be determined for both existing sources as well as future sources not yet in operation. Inputs required by most dispersion models, which must be specified by the user, include the following:

- Model options, such as averaging time to be calculated;
- Meteorological data, used by the model to estimate the dispersion conditions experience by the source emissions;
- Source data, such as source location and characteristics – stack emissions like those considered here are modeled as “point” sources, which require user inputs of the release height, exit temperature and velocity, and stack diameter (used by the dispersion model to estimate the mechanical and buoyant plume rise that will occur due to the release of emissions from a stack); and
- Receptor data, which are the location(s) of the given area where ambient concentrations are to be calculated by the dispersion model.

Model Selection

To estimate ambient air concentrations, the latest version of the AERMOD (Version 24142) dispersion model was used. AERMOD is appropriate for use in estimating ground-level short-term ambient air concentrations resulting from non-reactive buoyant emissions from sources located in simple, intermediate, and complex terrain. AERMOD is the preferred guideline model recommended by USEPA for these types of assessments and is based on conservative assumptions (i.e., the model tends to over-predict actual impacts by assuming steady state conditions, no pollutant loss through conservation of mass, no

chemical reactions, etc.). AERMOD is capable of assessing impacts from a variety of source types such as point, area, line, and volume sources (as noted above, point source types are used to model stack sources like the VBGF engine emissions); downwash effects; gradual plume rise as a function of downwind distance; time-dependent exponential decay of pollutants; and can account for settling and dry deposition of particulates (all VBGF emissions were conservatively modeled as non-reactive gaseous emissions). The model is capable of estimating concentrations for a wide range of averaging times (from one hour to the entire period of meteorological data provided).

AERMOD calculates ambient concentrations in areas of simple terrain (receptor base elevations below the stack release heights), intermediate terrain (receptor base elevations between stack release and final plume height), and complex terrain (receptor base elevations above final plume height). AERMOD assesses these impacts for all meteorological conditions, including those that would limit the amount of final plume rise. Plume impaction on elevated terrain, such as on the slope of a nearby hill, can cause high ground level concentrations, especially under stable atmospheric conditions. Due to the relatively flat nature of the VBGF project terrain area, including the surrounding properties, plume impaction effects would not be expected to occur. AERMOD also considers receptors located above the receptor base elevation, called flagpole receptors.

Another dispersion condition that can cause high ground level pollutant concentrations is caused by building downwash. Building downwash can occur during high wind speeds or a building or structure is in close proximity to the emission source. This can result in building wake effects where the plume is drawn down toward the ground by the lower pressure region that exists in the lee side (downwind) of the building or structure. This AERMOD feature was also used in modeling the VBGF emission sources as described later.

Model Input Options

Model options were based on the SCAQMD Modeling Guidance for AERMOD. This includes the use of urban dispersion coefficients with a Los Angeles County population of 9,663,345 million. Land use in the immediate area surrounding the project site is characterized as “urban”. This is based on the land uses within the area circumscribed by a three (3) km radius around the project site, which, based on the Auer land use classification scheme, results in a predominately “urban” classification. This is consistent with the current land use and zoning designation for the site and surrounding area as “commercial, and light and heavy industrial”.

Therefore, in the modeling analyses, the urban dispersion option was selected.

AERMOD also supplies recommended regulatory defaults for some of the model options. This analysis was conducted using AERMOD in the regulatory default mode, which includes the following additional modeling control options:

- adjusting stack heights for stack-tip downwash,

- using upper-bound concentration estimates for sources influenced by building downwash from super-squat buildings,
- incorporating the effects of elevated terrain,
- employing the USEPA-recommended calms processing routine, and
- employing the USEPA-recommended missing data processing routine.

Calculation of chemical concentrations for use in the impact and exposure analysis requires the selection of appropriate concentration averaging times. Average pollutant concentrations ranging from one (1) hour to annual based on the meteorological data were calculated for each VBGF source and the facility in total.

Meteorological Data - Modeling Inputs

AERMOD requires a meteorological input file to characterize the transport and dispersion of pollutants in the atmosphere. Surface and upper air meteorological data inputs, along with surface parameter data describing the land use and surface characteristics near a site, are first processed using AERMET, the meteorological preprocessor to AERMOD. The output files generated by AERMET are the surface and upper air meteorological input files required by AERMOD.

AERMOD uses hourly meteorological data to characterize plume dispersion. AERMOD calculates the dispersion conditions for each hour of meteorological data for the emission sources modeled at the user-specific receptor locations. The resulting 1-hour impacts are then averaged by AERMOD for the averaging time(s) specified by the user (accounting for calm winds and missing meteorological data as specified in the model options). The project location is in the SCAQMD Source-Receptor area SRA#1. Meteorological data from the SCAQMD CELA monitoring site, also located in SRA#1 were obtained from the SCAQMD web site for a five (5) year period from 2018-2020 and 2022-2023 (*https://www.aqmd.gov/assets/aermet/AERMET_files_And_HRA_Tool.html*).

The representativeness of the meteorological data is dependent on the proximity of the meteorological monitoring site to the area under consideration; the complexity of the terrain, the exposure of the meteorological monitoring site, and the period of time during which the data are collected. The meteorological data was collected approximately 6.7 kilometers from the northern VBGF project boundary and was determined as the most appropriate meteorological data for this modeling domain. There is no intervening terrain between the project site and the monitoring station nor is there terrain in the SRA#1 area that could alter the wind field in the project area. Thus, this site was selected for use in the AERMOD modeling analyses. The surface and upper air data were processed by SCAQMD with AERMET (version 22112), which is AERMOD's meteorological data preprocessor program. The annual wind rose is presented in Appendix B, Figure AQ3-3.

The SCAQMD VBGF meteorological data consists of surface measurements including wind speed, wind direction, temperature, and solar radiation, which were combined with

National Weather Service upper air data from the Oakland International Airport. The USEPA-recommended 90% completeness criteria are met for all modeled parameters in the SCAQMD meteorological data. The base elevation was set to 89 meters within AERMOD.

Building and Receptors – Modeling Inputs

The effects of building downwash on facility emissions were included in the modeling assessment. The **P**lume **Ri**se **M**odel **E**nhancements to the USEPA **B**uilding **P**rofile **I**nput **P**rogram (BPIP-PRIME, version 04274) was used to determine the direction-specific building downwash parameters. The PRIME enhancements in AERMOD calculate fields of turbulence intensity, wind speed, and slopes of the mean streamlines as a function of projected building shape. Using a numerical plume rise model, the PRIME enhancements in AERMOD determine the change in plume centerline location and the rate of plume dispersion with downwind distance. Concentrations are then predicted by AERMOD in both the near and far wake regions, with the plume mass captured by the near wake treated separately from the uncaptured primary plume and re-emitted to the far wake as a volume source. Appendix B, Figure AQ3-4 in Sub-Appendix AQ3 presents the building data used in the downwash analysis.

Receptor grids were generated along the fence line (10 meter spacing), from the fence line to 300 meters (20 meter spacing), from 300 meters to one kilometer (km) (50-meter spacing), from 1.0 to 5.0 km (200-meter spacing). If any of the maximum impacts occurred on receptors with spacing greater than 20 meters, a refined grid with 20-meter resolution would be created and extended outwards by 500 meters in all directions. All receptor and source locations are referenced in meters using the Universal Transverse Mercator (UTM) Cartesian coordinate system based on the North American Datum of 1983 (NAD83) for Zone 11.

The latest version of AERMAP (version 24142) was used to determine receptor elevations and hill-slope factors utilizing USGS's 1-degree and 1/3 degree National Elevation Dataset (NED). NED spacings were 1/3" (~10 meters) for the fence line, 20-meter, 50-meter, and 100-meter spaced receptor grids and 1" (~30 meters) for 200-meter and 500-meter spaced receptor grids and sensitive receptors. Flagpole receptors were generated for the two- and three-story residential areas just north of the project area. Electronic copies of the BPIP-PRIME and AERMAP input and output files, including the NED data, are included with the application will be submitted to Staff electronically. Appendix B, Figure AQ3-5 in Sub-Appendix AQ3 presents the receptor grids used in the modeling analyses.

Source Data – Modeling Inputs

Emissions and stack parameters for the 40 Cummins diesel engines are presented in Appendix B, Sub-Appendices AQ-1 and AQ-3 and were used to develop the modeling

inputs. Stack parameters (e.g., stack height, exit temperature, stack diameter, and stack exit velocity) were based on the parameters given by the engine manufacturer and the Applicant. Stack locations for the proposed sources were matched to show their actual location based on the proposed facility plot plan. Appendix B, Sub-Appendix AQ-3 presents the locations of the VBGF sources, and the building outlines considered in the downwash analysis. Stack base elevations were given a common base elevation based on the range of elevations calculated with AERMAP for the stack locations.

Impact Analysis Summary

Operational characteristics of the diesel engines, such as emission rate, exit velocity, and exit temperature, vary by operating loads. The engines could be operated over a range of load conditions from one (1) to 100 percent. Based on similar projects, the 100% load case always produces the maximum ground-based concentrations. Thus, an air quality screening analysis was not performed. The engines were assumed to be tested anytime from 7 AM to 5 PM (controlled using the EMISFACT/HROFDY model option). Although the engines will typically only be tested individually for up to one hour at any one time, each engine was assumed to operate up to 8 hours/day (7AM-5PM) to conservatively represent 8 different engines operating one hour each in any one day for 3-hour, 8-hour, and 24-hour averaging times. Thus, the worst-case stack condition and the worst-case engine location could be determined from the screening analysis. All 40 engines were assumed to be tested for annual averages, with emissions proportioned accordingly.

All VBGF sources were modeled in the refined analyses for comparisons with the annual CAAQS and NAAQS, the short-term NAAQS with multi-year statistical forms (1-hour NO_2 and SO_2 and 24-hour PM2.5 and PM10) and the short-term CAAQS (maximum concentrations). Since the engines will each be tested far less than 100 hours/year, the annual average emission rate was included in 1-hour NO_2 and SO_2 NAAQS modeling analyses at the annual average emission rates per EPA guidance due to the statistical nature of these standards (it was the engines were modeled at the maximum 1-hour emission rate for the CAAQS).

For the 1-hour NO_2 modeling assessments, the Ambient Ratio Method Version 2 (ARM2) was used in the modeling analyses with an in-stack NO_2/NO_x ratio of 0.5 (50%) based on EPA Guideline requirements. This is conservative as the NO_2/NO_x ratios for these types of engines are on the order of 10%, as per the EPA's ISR database.

The highest NO_2 background data over the last three (3) years from the SCAQMD CELA monitoring site on North Main Street was used to assess the CAAQS, which was then added to the modeled NO_2 concentration for the 1-hour CAAQS assessment. The three-year average of the second-highest hourly value for the same three (3) year period were added to the modeled NO_2 concentration for the NAAQS assessment. Assessment with the CAAQS is based on the maximum 1-hour NO_2 concentration (with and without background). NO_2 NAAQS compliance based on the five-year average of the 98^{th} percentile daily maximum annual 1-hour impacts with background concentration (NO_2 SIL

for NAAQS compliance based on 5-year average of the annual 1-hour maximum impacts without background concentrations).

Based on the results of the modeling analyses, the modeled concentrations are presented in Table 4.3-16.

Table 4.3-16: Modeled Operational Concentrations and Ambient Air Quality Standards

Pollutant	Averaging Period	Maximum Concentration ($\mu g/m^3$)	Background ($\mu g/m^3$)	Total ($\mu g/m^3$)	Ambient Air Quality Standards ($\mu g/m^3$)	
					CAAQS	NAAQS
3-/8-/24-Hour Maxima shown for one engine operating up to 10 hours/day (7AM-5PM)						
NO_2*	1-hour maximum (CAAQS)	152.0	146.4	298.4	339	-
	3-year average of 1-hour yearly 98th % (NAAQS)**	2.7	104.1	106.8	-	188
	Annual maximum	2.1	34.8	36.9	57	100
CO	1-hour maximum	670	2290	2960	23,000	40,000
	8-hour maximum	475	1832	2307	10,000	10,000
SO_2	1-hour maximum (CAAQS)	1.29	20.2	21.49	655	--
	3-year average of 1-hour yearly 99th % (NAAQS)**	.01	5.5	5.51	--	196
	24-hour maximum	0.3	6.0	6.3	105	--
	Annual maximum	0.01	1.0	1.01	20	-
PM10	24-hour maximum (CAAQS)	1.1	64	65.1	50	--
	24-hour 4th highest over 5 years (NAAQS)	0.6	59.6	60.2	-	150
	Annual maximum (CAAQS)	0.04	28.9	28.94	20	-
PM2.5	3-year average of 24-hour yearly 98th %	0.3	30.0	30.3	-	35
	Annual maximum (CAAQS)	0.04	12.77	12.81	9	-
	3-year average of annual concentrations (NAAQS)	0.03	11.32	11.35	-	9

*1-hour NO_2 impacts evaluated with Ambien Ratio Method #2 (ARM2), with the maximum hourly background added in separately. Annual NO_2 impacts evaluated with ARM2. Modeling utilized USEPA-default minimum/maximum NO_2/NOx ambient ratios of 0.5/0.9.

** Impacts for the 1-hour statistical-based NO_2 and SO_2 NAAQS are based on the annual average emissions per USEPA guidance documents for intermittent sources like emergency generators. Impacts for the 1-hour NO_2 and SO_2 CAAQS are based on the 1-hour emission rate since these CAAQS are “values that are not to be exceeded”.

Construction equipment and associated heavy-duty truck traffic generates diesel exhaust, which is a known TAC. These exhaust air pollutant emissions would not be considered to contribute substantially to existing or projected air quality violations. Construction exhaust emissions may still pose health risks for sensitive receptors such as nearby residents. The primary community risk impact issues associated with construction

emissions are cancer risk and exposure to $PM_{2.5}$. Diesel exhaust poses both a potential health and nuisance impact to nearby receptors. A health risk assessment of the project construction activities was conducted that evaluated potential health effects of sensitive receptors at these nearby residences from construction emissions of DPM and $PM_{2.5}$.[11] The closest sensitive receptors to the project site are residences located southwest of the project boundary. Emissions and dispersion modeling were conducted to predict the off-site concentrations resulting from project construction, so that lifetime cancer risks and non-cancer health effects could be evaluated.

In addition, during excavation, grading, and some building construction activities, substantial amounts of dust could be generated. Most of the dust would result during grading activities. The amount of dust generated would be highly variable and would be dependent on the size of the area disturbed at any given time, amount of activity, soil conditions, and meteorological conditions. To address fugitive dust emissions that lead to elevated PM_{10} and $PM_{2.5}$ levels near construction sites, the SCAQMD CEQA Air Quality Guidelines identify best management practices. Once included in construction projects, these impacts will be considered less than significant. In addition, diesel emissions from construction related equipment will temporarily result in an increase in health risk to nearby offsite receptors.

For modeling fugitive PM10 and PM2.5 emissions, an area source was developed across the project area (bounded by the property fence line) with a near-ground level release height of 0.5 meters (1.6 feet). Fugitive dust emissions from the construction equipment and on-road vehicle travel were distributed throughout the modeled area source. To represent the construction equipment exhaust emissions, 119 equally spaced (20 meter) point sources were placed within the area of construction activity. Each point source had an emission release height of 3.05 meters (10 feet). The exit temperature and stack velocity were based on an average sized construction engine that could be used for the project. Construction emissions were modeled as occurring daily between 7 a.m. to 5 p.m., when the majority of construction activity would occur.

Table 4.3-17: Modeled Construction Concentrations and Ambient Air Quality Standards

Pollutant	Averaging Period	Maximum Concentration ($\mu g/m^3$)	Background ($\mu g/m^3$)	Total ($\mu g/m^3$)	Ambient Air Quality Standards ($\mu g/m^3$)	
					CAAQS	NAAQS
Construction occurs for up to 10 hours/day (7AM-5PM)						
NO_2*	1-hour maximum (CAAQS)	2.6	146.4	149.0	339	-
	3-year average of 1-hour yearly 98th % (NAAQS)	1.8	104.1	105.9	-	188
	Annual maximum	0.2	34.8	35.0	57	100
CO	1-hour maximum	16	2290	2306	23,000	40,000
	8-hour maximum	7	1832	1839	10,000	10,000
SO_2	1-hour maximum (CAAQS)	.04	20.2	20.24	655	--
	3-year average of 1-hour yearly 99th % (NAAQS)	.04	5.5	5.54	--	196
	24-hour maximum	.01	6.0	6.01	105	--
	Annual maximum	.002	1.0	1.002	20	-
PM10	24-hour maximum (CAAQS)	1.7	64.0	65.7	50	--
	Annual maximum (CAAQS)	1.5	59.6	61.1	-	150
PM2.5	3-year average of 24-hour yearly 98th %	0.5	28.9	29.4	20	-
	3-year average of annual concentrations (NAAQS)	0.28	30.0	30.3	-	35

*1-hour NO_2 impacts evaluated with Ambien Ratio Method #2 (ARM2), with the maximum hourly background added in separately. Annual NO_2 impacts evaluated with ARM2. Modeling utilized USEPA-default minimum/maximum NO_2/NOx ambient ratios of 0.5/0.9.

The air quality modeling support data will be submitted to Staff electronically.

Based on the modeling results in Tables 4.3-16 and 4.3-17, the only combined modeled impacts and background concentrations greater than the standards are for the 24-hour and annual PM10 CAAQS and the 24-hour PM2.5 NAAQS and annual PM2.5 CAAQS. These exceedances are only because the background concentrations already exceed the standards. Modeled project impacts in these instances are less than the USEPA and/or SCAQMD significance levels and thus, the project will not cause or contribute to an exceedance of any air quality standard for any averaging time period. The project will therefore comply with the CAAQS and NAAQS.

Public Health and Health Risk Assessment

This section presents the methodology and results of a human health risk assessment performed to assess potential impacts and public exposure associated with airborne emissions from the routine operation of the GEP project.

Air will be the dominant pathway for public exposure to chemical substances released by the project. Emissions to the air will consist primarily of combustion byproducts produced by the diesel-fired emergency standby engines. Potential health risks from combustion emissions will occur almost entirely by direct inhalation. To be conservative, additional pathways were included in the health risk modeling; however, direct inhalation is considered the most likely exposure pathway. The risk assessment was conducted in accordance with guidance established by the California Office of Environmental Health Hazard Assessment (OEHHA 2015) and the California Air Resources Board.

Combustion byproducts with established CAAQS or NAAQS, including oxides of nitrogen (NOx), carbon monoxide, sulfur dioxide, and fine particulate matter were addressed in the previous Air Quality section.

Affected Environment

Sensitive receptors are defined as groups of individuals that may be more susceptible to health risks due to chemical exposure. Schools (public and private), day care facilities, convalescent homes, and hospitals are of particular concern. The nearest sensitive receptors, by type, are listed in Table 4.3-18. There are no sensitive receptors within 1,000 ft. of the facility boundary. Sub-Appendix AQ5 contains support materials for the facility health risk assessment, including a listing of sensitive receptors within the facility regional area. HAPs emissions evaluations are presented in Sub-Appendix AQ1.

Table 4.3-18: Sensitive Receptors Nearfield of the GEP Site

Receptor Type	UTM Coordinates	~ Distance from Site, miles
Nearest Residence SW	386981, 3762291	0.84
Nearest Residence SE	388868, 3762312	1.11
Nearest Residence NNE	388584, 3764930	1.09
Nearest Hospital	390460, 3764931	2.02
Nearest School (Vernon City School)	386325.42, 3763219.45	0.78
Nearest Daycare (HeadStart)	385017, 3762165	1.78
Nearest Convalescent Home	None	-
Nearest College/Univ.	384499, 3764090	1.92
Source: Google Earth Image 2/10/2024. All coordinates are approximate.		

The receptors noted above should not be assumed to represent the maximum impact locations based on receptor type. For example, the nearest residence(s) noted in the table

may not be the maximum impacted residence on the modeling grid.

Air quality and health risk data presented by CARB in the 2013 Almanac of Emissions and Air Quality (latest version available, CARB 2013) for the state shows that over the period from the mid-1990s through 2013, the average concentrations for DPM have been substantially reduced, and the associated health risks for the state are showing a steady downward trend as well. This same trend has occurred in the SCAQMD.

Public Health Significance Criteria

Cancer Risk

Cancer risk is the probability or chance of contracting cancer over a period of time normally defined as either 30 or 70-years depending on the project type and agency risk procedures. Carcinogens are not assumed to have a threshold below which there would be no human health impact. In other words, any exposure to a carcinogen is assumed to have some probability of causing cancer; the lower the exposure, the lower the cancer risk (i.e., a linear, no-threshold model). Under various state and local regulations, an incremental cancer risk greater than 10-in-one million due to a project is considered to be a significant impact on public health. For example, the 10-in-one-million risk level is used by the Air Toxics Hot Spots (AB 2588) program and California's Proposition 65 as the public notification level for air toxic emissions from existing sources.

Non-Cancer Risk

Non-cancer health effects can be either chronic or acute. In determining potential non-cancer health risks (chronic and acute) from air toxics, it is assumed there is a dose of the chemical of concern below which there would be no impact on human health. The air concentration corresponding to this dose is called the Reference Exposure Level (REL). Non-cancer health risks are measured in terms of a hazard quotient, which is the calculated exposure of each contaminant divided by its REL. Hazard quotients for pollutants affecting the same target organ are typically summed with the resulting totals expressed as hazard indices for each organ system. A hazard index of less than 1.0 is considered to be an insignificant health risk. For this health risk assessment, all hazard quotients were summed regardless of target organ. This method leads to a conservative (upper bound) assessment. RELs used in the hazard index calculations were those published in the CARB/OEHHA listings dated January 2025.

Chronic toxicity is defined as adverse health effects from prolonged chemical exposure, caused by chemicals accumulating in the body. Because chemical accumulation to toxic levels typically occurs slowly, symptoms of chronic effects usually do not appear until long after exposure commences. The lowest no-effect chronic exposure level for a non-carcinogenic air toxic is the chronic REL. Below this threshold, the body is capable of eliminating or detoxifying the chemical rapidly enough to prevent its accumulation. The chronic hazard index was calculated using the hazard quotients calculated with annual concentrations.

Acute toxicity is defined as adverse health effects caused by a brief chemical exposure of no more than 24 hours. For most chemicals, the air concentration required to produce acute effects is higher than the level required to produce chronic effects because the duration of exposure is shorter. Because acute toxicity is predominantly manifested in the upper respiratory system at threshold exposures, all hazard quotients are typically summed to calculate the acute hazard index. One-hour average concentrations are divided by acute RELs to obtain a hazard index for health effects caused by relatively high, short-term exposure to air toxics. Since this assessment considers only DPM, and DPM has no acute REL, acute HI values were not calculated. The following receptor descriptors are used herein:

- PMI – Point of maximum impact – this receptor represents the highest concentration and risk point on the receptor grid for the analysis under consideration.
- MEIR – Maximum exposed individual residential receptor – this receptor represents the maximum impacted actual residential location on the grid for the analysis under consideration.
- MEIW - Maximum exposed individual worker receptor – this receptor represents the maximum impacted actual worker location on the grid for the analysis under consideration.
- MEIS - Maximum exposed individual sensitive receptor – this receptor represents the maximum impacted actual sensitive location on the grid for the analysis under consideration. This location is a non-residential sensitive receptor, i.e., school, hospital, daycare center, convalescent home, etc.

Construction and Operational Phase Impacts

Environmental consequences potentially associated with the project are potential human exposure to chemical substances emitted into the air. The human health risks potentially associated with these chemical substances were evaluated in a health risk assessment. The chemical substance potentially emitted to the air from the proposed facility is DPM. DPM is the approved surrogate compound for diesel fuel combustion pursuant to CARB and EPA.

Emissions of criteria pollutants will adhere to NAAQS or CAAQS as discussed in the Ambient Air Quality section. The proposed facility emergency electrical backup engines will be either certified or compliant Tier 4 units and as such, they meet the BACT requirements of the SCAQMD. These engines are equipped with DPFs. Finally, air dispersion modeling results show that emissions will not result in concentrations of criteria pollutants in air that exceed ambient air quality standards (either NAAQS or CAAQS). These standards are intended to protect the general public with a wide margin of safety. Therefore, the project is not anticipated to have a significant impact on public health from emissions of criteria pollutants.

Potential impacts associated with emissions of toxic pollutants to the air from the proposed facility were addressed in a health risk assessment, with support data presented in Appendix AQ5. The risk assessment was prepared using guidelines developed by OEHHA and CARB, as implemented in the latest version of the HARP model (ADMRT 22118). The SCAQMD risk assessment options in HARP were used for all analyses (SCAQMD 2016).

Public Health Impact Study Methods

Emissions of toxic pollutants potentially associated with the facility were estimated using emission factors for PM10 derived from the following:

- Cummins QSK78 Engines:
    - Each large engine running for 150 hours per year for Declared Emergency operations, at 100% load, at the guaranteed emissions levels from the Tier 4 control systems.
    - Each large engine running for 50 hours per year for Maintenance and Readiness operations, at 100% load, using composite emissions factors to address both uncontrolled and controlled emissions during such testing.
- Cummins QST30 Engines:
    - Each small engine running for 150 hours per year for Declared Emergency operations, at 100% load, at the guaranteed emissions levels from the Tier 4 control systems.
    - Each small engine running for 50 hours per year for Maintenance and Readiness operations, at 100% load, using composite emissions factors to address both uncontrolled and controlled emissions during such testing.

Concentrations of these pollutants in air potentially associated with the emissions were estimated using dispersion modeling as discussed in the Air Quality section. Modeling allows the estimation of both short-term and long-term average concentrations in air for use in a risk assessment, accounting for site-specific terrain and meteorological conditions. Health risks potentially associated with the estimated concentrations of pollutants in air were characterized in terms of excess lifetime cancer risks, or comparison with reference exposure levels for non-cancer health effects.

Health risks potentially associated with concentrations of carcinogenic pollutants in air were calculated as estimated excess lifetime cancer risks. The excess lifetime cancer risk for a pollutant is estimated as the product of the concentration in air and a unit risk value. The unit risk value is defined as the estimated probability of a person contracting cancer as a result of constant exposure to an ambient concentration of 1 $\mu g/m^3$ over a 30-year lifetime. In other words, it represents the increased cancer risk associated with continuous exposure to a concentration in air over a pre-defined period, i.e., usually a 30 or 70-year lifetime. Evaluation of potential non-cancer health effects from exposure to short-term and

long-term concentrations in air was performed by comparing modeled concentrations in air with the RELs. An REL is a concentration in air at or below which no adverse health effects are anticipated. RELs are based on the most sensitive adverse effects reported in the medical and toxicological literature. Potential non-cancer effects were evaluated by calculating a ratio of the modeled concentration in air and the REL. This ratio is referred to as a hazard quotient. The unit risk values and RELs used to characterize health risks associated with modeled concentrations in air were obtained from the *Consolidated Table of OEHHA/ARB Approved Risk Assessment Health Values* (CARB 01/2025) and are presented in Table 4.3-19.

Table 4.3-19: Toxicity Values Used to Characterize Health Risks

TAC	Unit Risk Factor (μg/m3)-1	Chronic Reference Exposure Level (μg/m3)	Acute Reference Exposure Level (μg/m3)
DPM	.0003	5	Not Established
Source: CARB/OEHHA, 01/2025			

Table 4.3-20 delineates the maximum hourly and annual emissions of the identified air toxic pollutants (DPM) from the emergency backup engines.

Table 4.3-20: Maximum VBGF Hourly, Daily, and Annual Air Toxic Emissions

Emergency Standby Engines (per engine basis)				
Engine Model	**Toxic**	**Max Hour Emissions, Lbs**	**Max Daily Emissions, Lbs**	**Max Annual Emissions Lbs**
QSK78	DPM	0.196	-	9.8
QST30	DPM	0.065	-	3.25
Note: Engines are equipped with diesel particulate filters at <= 0.02 g/bhp-hr. Emissions are for maintenance & readiness testing only.				

Construction Phase Impacts

The proposed project would be a source of air pollutant emissions during project construction. The SCAQMD CEQA Air Quality Guidelines considers exposure of sensitive receptors to air pollutant levels that result in an unacceptable cancer risk or hazard to be significant. Results of the construction related health risk assessment indicate that the risk values from construction would be as follows in Table 4.3-21:

Table 4.3-21: GEP/VBGF Construction Health Risk Assessment Summary

Location	Receptor #	UTM (meters)	Cancer Risk	Chronic HI	Acute HI	Cancer Burden
PMI	46	387574.8, 3763565.37	7.73E-07	0.000532	-	NA
MEIR	4841	387000.0, 3762250.0	1.21E-08	8.00E-06	-	NA
MEIS	1821	386400.0, 3763200.0	1.21E-08	8.00E-06	-	NA
MEIW	1357	387800.0, 3763530.0	2.72E-08	0.00030	-	NA

Notes: See acronym definitions above.
The PMI noted above is located on the northern fence line.
DPM is the surrogate compound for construction equipment diesel exhaust. No acute REL has been established for DPM.
16 month construction period (HRA used 2 years as a conservative exposure period.)
MEIS – Vernon City School
FAH=1 for all age groups from 3rd trimester to 16 years, for MEIR and MEIS.
FAH not used for MEIW.

These values are well below the significance thresholds for construction health risk impacts, and as such the community risk impacts from construction activities would be *less than significant*.

Characterization Of Risks from Operations Toxic Air Pollutants

The excess lifetime cancer risk associated with operational concentrations in air estimated for the VBGF PMI location (based on worker exposer given the location on the northern property boundary) is calculated to be 6.17E-06 or 6.17 per million. Excess lifetime cancer risks less than 10 x 10^{-6}, for sources with T-BACT, are unlikely to represent significant public health impacts that require additional controls of facility emissions. Risks higher than 1 x 10^{-6} may or may not be of concern, depending upon several factors. These include the conservatism of assumptions used in risk estimation, size of the potentially exposed population and toxicity of the risk-driving chemicals. Health effects risk thresholds are listed on Table 4.3-22. Risks associated with pollutants potentially emitted from the facility are presented in Tables 4.3-23 and 4.3-24. The chronic hazard indices for all scenarios are well below 1.0. It should be noted that DPM does not currently have an acute hazard index value, and as such, acute health effects were not evaluated in the HRA. Further description of the methodology used to calculate health risks associated with emissions to the air can be found in the HARP User's Manual dated 12/2003 and the ADMRT Manual dated 3/2015 (CARB 2015). As described previously, human health risks associated with emissions from the proposed facility are unlikely to be higher at any other location than at the location of the PMI. However, the location of the PMI is on the northern project fence line, adjacent to an existing construction site, and does not reflect the potential impact at any of the residential or sensitive receptors, all of which have risks less than 10 in a million. Appendix B, Figure AQ5-1 presents 1 x10^{-6} significant risk

isopleth for the routine testing and maintenance operations of the VBGF project.

Table 4.3-22: SCAQMD Health Risk Significance Thresholds

Risk Category	Risk Limit
Maximum Incremental Cancer Risk	< 10 in 1 Million w/TBACT
Chronic Hazard Index	< 1 (cumulative increase)
Acute Hazard Index	< 1 (cumulative increase)
Cancer Burden	<= 0.5

Table 4.3-23: GEP/VBGF Operational Residential/Sensitive Health Risk Assessment Summary

Location	Receptor #	UTM (meters)	Cancer Risk	Chronic HI	Acute HI	Cancer Burden
PMI	44	387554.8, 3763565.0	2.12E-05	0.00569	-	< 0.5
MEIR	4841	387000.0, 3762250.0	4.24E-07	0.000114	-	< 0.5
MEIS	1821	386400.0, 3763200.0	3.64E-07	0.000104	-	< 0.5
Notes: See acronym definitions above. The PMI noted above is located on the northern fence line. MEIS – Vernon City School						

Table 4.3-24: GEP/VBGF Operational Worker Health Risk Assessment Summary

Location	Receptor #	UTM	Cancer Risk	Chronic HI	Acute HI	Cancer Burden
PMI	44	387554.8, 3763565.0	6.17E-06	0.00569	-	< 0.5
MEIW	1357	387800.0, 3763530.0	2.51E-06	0.00231	-	< 0.5
Notes: See acronym definitions above. The PMI noted above is located at the northern fence line.						

Cancer risks potentially associated with facility emissions were also assessed in terms of cancer burden. Cancer burden is a hypothetical upper-bound estimate of the additional number of cancer cases that could be associated with emissions from the facility. Cancer burden is calculated as the worst-case product of excess lifetime cancer risk, at the 1 x 10^{-6} isopleth and the number of individuals at that risk level. The estimated cancer burden is well below the AQMD threshold level of 0.5, i.e., 0.000113. (See Appendix, B Sub-Appendix AQ5, Table AQ5-2 for the cancer burden calculations and assumptions.)

The chronic non-cancer hazard quotient associated with concentrations in air are shown in Table 4.3-23. The chronic non-cancer hazard quotient for all target organs falls below 1.0. As described previously, a hazard quotient less than 1.0 is unlikely to represent significant impact to public health. Since DPM does not have an acute REL, no acute hazard index or quotient was calculated. As described previously, human health risks

associated with emissions from the proposed facility are unlikely to be higher at any other location than at the location of the PMI. If there is no significant impact associated with concentrations in air at the PMI location, it is unlikely that there would be significant impacts in any other location in the vicinity of the facility.

Detailed risk and hazard values are provided in the HARP output which will be submitted to Staff electronically.

The estimates of excess lifetime cancer risks and non-cancer risks associated with chronic or acute exposures fall below thresholds used for regulating emissions of toxic pollutants to the air. Historically, exposure to any level of a carcinogen has been considered to have a finite risk of inducing cancer. In other words, there is no threshold for carcinogenicity. Since risks at low levels of exposure cannot be quantified directly by either animal or epidemiological studies, mathematical models have estimated such risks by extrapolation from high to low doses. This modeling procedure is designed to provide a highly conservative estimate of cancer risks based on the most sensitive species of laboratory animal for extrapolation to humans (i.e., the assumption being that humans are as sensitive as the most sensitive animal species). Therefore, the true risk is not likely to be higher than risks estimated using unit risk factors and is most likely lower, and could even be zero (USEPA, 1986; USEPA, 1996).

An excess lifetime cancer risk of 1×10^{-6} is typically used as a screening threshold of significance for potential exposure to carcinogenic substances in air. The excess cancer risk level of 1×10^{-6}, which has historically been judged to be an acceptable risk, originates from efforts by the Food and Drug Administration (FDA) to use quantitative risk assessment for regulating carcinogens in food additives in light of the zero-tolerance provision of the Delany Amendment (Hutt, 1985). The associated dose, known as a "virtually safe dose" (VSD) has become a standard used by many policy makers and the lay public for evaluating cancer risks. However, a study of regulatory actions pertaining to carcinogens found that an acceptable risk level can often be determined on a case-by-case basis. This analysis of 132 regulatory decisions, found that regulatory action was not taken to control estimated risks below 1×10^{-6} (one-in-one million), which are called de minimis risks. De minimis risks are historically considered risks of no regulatory concern. Chemical exposures with risks above 4×10^{-3} (four-in-ten thousand), called de manifestis risks, were consistently regulated. De manifestis risks are typically risks of regulatory concern. The risks falling between these two extremes were regulated in some cases, but not in others (Travis et al, 1987).

The estimated lifetime cancer risks to the maximally exposed individual located at the VBGF PMI, MEIR, MEIW, and MEIS do not exceed the 10×10^{-6} significance level for T-BACT sources. These engines are EPA Tier 4 units equipped with diesel particulate filters, and are used only for emergency power backup, therefore BACT or T-BACT for DPM is satisfied. The chronic hazard index value is also well below the significance threshold of 1.0. These risk estimates were calculated using assumptions that are highly

health conservative. Evaluation of the risks associated with the VBGF emissions should consider that the conservatism in the assumptions and methods used in risk estimation considerably over-state the risks from VBGF emissions. Based on the results of this risk assessment, there are no significant public health impacts anticipated from emissions of toxic pollutants to the air from the VBGF.

Operation Odors

The facility is not expected to produce any contaminants at concentrations that could produce objectionable odors.

Summary of Impacts

The health risk assessment for the VBGF indicates that the maximum cancer risk will be approximately $7.09E^{-07}$ (versus a significance threshold of 10×10^{-6} with T-BACT) at the MEIR to air toxics from VBGF emissions. This risk level is considered to be not significant. Non-cancer chronic effects for all scenarios are well below the chronic hazard index significance value.

Results from an air toxics risk assessment based on emissions modeling indicate that there will be no significant incremental public health risks from the construction and operation of the VBGF. Results from criteria pollutant modeling for routine operations indicate that potential ambient concentrations of NO_2, CO, SO_2, and PM_{10} will not significantly impact air quality. Potential concentrations are below the federal and California standards established to protect public health, including the more sensitive members of the population.

CalEnviroScreen 4.0

Appendix B, Figure AQ5-2 (Sub-Appendix AQ5) presents the CalEnviroScreen4.0 map for the project area. This map is presented for information purposes only as the SCAQMD does not have regulatory language in Rule 1401 which stipulates a lower cancer risk threshold based on either of the following: (1) the project is located in an area rated above the 70^{th} percentile, or (2) the project is located within a specified distance of an area rated above the 70^{th} percentile.

Cumulative Impacts

The South Coast Air Quality Management District (SCAQMD) is the primary agency responsible for assuring that the National and California Ambient Air Quality Standards (NAAQS and CAAQS, respectively) are attained and maintained in the South Coast. SCAQMD's jurisdiction includes all of the portion of Los Angeles County that lies within the South Coast Air Basin. The Air District's responsibilities in improving air quality in the region include: preparing plans for attaining and maintaining air quality standards;

adopting and enforcing rules and regulations; issuing permits for stationary sources of air pollutants; inspecting stationary sources and responding to citizen complaints; monitoring air quality and meteorological conditions; awarding grants to reduce mobile emissions; implementing public outreach campaigns; and assisting local governments in addressing climate change.

Cumulative Impacts Assessment

Presently, the SCAQMD does not have an established program for addressing cumulative impacts. The Applicant notes that the SCAQMD has established a Working Group which is currently developing the components of a cumulative impacts analysis program. As such, the Applicant has chosen to conduct its cumulative impacts analysis based upon the current CEC guidance as follows:

CEC Cumulative Analysis Requirements

The cumulative impact analysis shall address the following air quality issues.

An evaluation of the project's direct and cumulative air quality impacts, consisting of the following:

(i) A screening level air quality modeling analysis, or a more detailed modeling analysis if so desired by the applicant, of the direct criteria pollutant impacts of project construction activities on ambient air quality conditions, including fugitive dust (PM10) emissions from grading, excavation and site disturbance, as well as the combustion emissions [nitrogen oxides (NOx), sulfur dioxide (SO2), carbon monoxide (CO), and particulate matter less than 10 microns in diameter (PM10) and particulate matter less than 2.5 microns in diameter (PM2.5)] from construction-related equipment;

Status of part (i) – The construction impact modeling analysis has been completed and the results are presented in the Air Quality Impact Analysis section, with results tabulated in Table 4.3-17.

(ii) A screening level air quality modeling analysis, or a more detailed modeling analysis if so desired by the applicant, of the direct criteria pollutant (NOx, SO2, CO and PM10 and PM2.5) impacts on ambient air quality conditions of the project during typical (normal) operation, and during shutdown and startup modes of operation. Identify and include in the modeling of each operating mode the estimated maximum emissions rates and the assumed meteorological conditions;

Status of part (ii) – The operational impact modeling analysis has been completed and the results are presented in the Air Quality Impact Analysis section, with results tabulated in Table 4.3-16.

and,

(iii) A protocol for a cumulative air quality modeling impacts analysis of the project's typical operating mode in combination with other stationary emissions sources within a six mile radius which have received construction permits but are not yet operational, or are in the permitting process. The cumulative inert pollutant impact analysis should assess whether estimated emissions concentrations will cause or contribute to a violation of any ambient air quality standard.

Status of part (iii) – The Applicant has requested from the SCAQMD a list of sources which meet the criteria noted above. The requested source data included the following; source name, location coordinates, stack and or emissions point data, as well as inert emissions data for each identified emissions point. The outstanding analysis per part (iii) will be forwarded to the CEC upon completion.

(iv) an air dispersion modeling analyses of the impacts of the initial commissioning phase emissions on state and federal ambient air quality standards for NOx, SO2, CO, PM10 and PM2.5.

Status of part (iv) – Emergency backup generation engines are normally not required to undergo a "commissioning period". The engines as delivered and installed do not require commissioning, and as such, no commissioning analysis is proposed.

4.3.4 Project Design Measures

Construction. GIC Vernon incorporates the following measure into the design of the Project to minimize construction related air emissions.

PDM AQ-1: To ensure that fugitive dust impacts are less than significant, the project will implement, at a minimum, the SCAQMD's recommended BMPs during the construction phase. These BMPs are incorporated into the design of the project and will include:

- All exposed surfaces (soil piles, graded areas, and unpaved access roads) shall be watered at least two times per day.
- All haul trucks transporting material offsite shall be covered.
- All track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day.
- All vehicle speeds on onsite unpaved surfaces shall be limited to less than or equal to 15 miles per hour. In addition, no unpaved roadways will be used to service the project during construction (or operation).
- All roadways, driveways, and sidewalks shall be paved as soon as possible. Building pads shall be completed as soon as possible after grading unless seeding or soil binders are used.

- Equipment idling times shall be minimized to 5 minutes per the Air Toxics Control Measure (ATCM). Idling time signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer specifications. All equipment shall be checked by a certified visible emissions evaluator. All equipment will be EPA Tier 4 rated.
- Information on who to contact, contact phone number, and how to initiate complaints about fugitive dust problems will be posted at the site.

Operations. No Project Design Measures are required for operations related to air quality impacts because the project will fully offset its NOx emissions in accordance with BAAQMD existing rules.

4.3.5 Governmental Agencies

As discussed above the SCAQMD has regulatory authority over the air emissions from the VBGF. The VBGF will obtain and comply with the SCAQMD's Authority to Construct and Permit to Operate requirements.

4.4 BIOLOGICAL RESOURCES

This section will be provided under separate cover on or before March 15, 2025, once the Biological Resources Assessment is completed.

4.5 CULTURAL RESOURCES AND TRIBAL CULTURAL RESOURCES

This section will be provided under separate cover on or before March 15, 2025, once the Cultural Resources Assessment is completed.

4.6 ENERGY AND ENERGY RESOURCES

4.6.1 CEQA Checklist

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Energy and Energy Resources				
Would the project:				
1) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during project construction or operation?	☐	☐	☒	☐
2) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

4.6.2 Environmental Setting

Regulatory Framework

Federal and State

Energy Star and Fuel Efficiency

At the federal level, energy standards set by the EPA apply to numerous consumer products and appliances (e.g., the EnergyStar™ program). The EPA also sets fuel efficiency standards for automobiles and other modes of transportation.

Renewables Portfolio Standard Program

In 2002, California established its Renewables Portfolio Standard Program, with the goal of increasing the percentage of renewable energy in the state's electricity mix to 20 percent of retail sales by 2010. In 2008, Executive Order S-14-08 was signed into law, requiring retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. In October 2015, Governor Brown signed SB 350 to codify California's climate and clean energy goals. A key provision of SB 350 requires retail sellers and publicly owned utilities to procure 50 percent of their electricity from renewable sources by 2030. SB 100, passed in 2018, requires 100 percent of electricity in California to be provided by 100 percent renewable and carbon-free sources by 2045.

California Building Standards Code

The Energy Efficiency Standards for Residential and Nonresidential Buildings, as specified in Title 24, Part 6 of the California Code of Regulations (Title 24), was established in 1978 in response to a legislative mandate to reduce California's energy consumption. Title 24 is updated approximately every three years, and the 2022 Title 24 updates went into effect on January 1, 2023[8]. Compliance with Title 24 is mandatory at the time new building permits are issued by city and county governments.

California Green Building Standards Code

CALGreen establishes mandatory green building standards for buildings in California. CALGreen was developed to reduce GHG emissions from buildings, promote environmentally responsible and healthier places to live and work, reduce energy and water consumption, and respond to state environmental directives. The most recent update to CALGreen went into effect on January 1, 2023, and covers five categories: planning and design, energy efficiency, water efficiency and conservation, material and resource efficiency, and indoor environmental quality.

Local

City of Vernon General Plan

The City of Vernon General Plan includes several energy use and conservation goals and policies designed to protect energy resources in the City. These goals and policies include the following:

> ***POLICY LU-3.3:*** *Maintain power plants as key land use in the community, and allow for the expansion and/or development of new facilities to provide a reliable, cost-effective source of energy to industrial users.*

GOAL CI6: Improve the City's capability to generate and supply electric power to achieve energy self-sufficiency.

> **POLICY CI-6.4:** Evaluate the impact of all new development on the electrical energy system, and require that the cost of upgrading existing facilities is paid by the development, which necessitates the upgrade.
>
> **POLICY CI-6.5:** Expand the City's capability to generate and provide natural gas to enhance the power/energy supply system.

[8] California Building Standards Commission. "Welcome to the California Building Standards Commission." http://www.dgs.ca.gov/BSC/codes.

GOAL R-1: Conserve and protect the region's water and energy resources.

POLICY R-1.2: Support the use of energy-saving designs and equipment in all new development and reconstruction projects.

Action R-2: Promote Energy Conservation. Continue to promote energy conservation by the public and private sector. Continue to implement Title 24 standards in building codes and work with energy providers to encourage energy conservation activities and promote energy conservation programs. Use the City website and City events to educate the public about the availability of energy conservation programs.

City of Vernon Environmental Sustainability Action Plan

The City of Vernon adopted its Environmental Sustainability Action Plan in December 2023. It includes several goals applicable to energy resources as outlined below:

Goal E1 Transition to clean, renewable energy sources: 60% by 2030, 90% by 2035, 95% by 2040, and 100% by 2045

Goal E2 Improve energy efficiency of new and existing buildings throughout the community

Goal E3 Increase community energy resilience

Specific policies applicable to the GEP and energy resources include the following:

E1-a: Procure and deliver more renewable electricity to the grid.

E2-a: Encourage building electrification and energy efficiency.

E2-b: Develop community partnerships to evaluate deployment of new technologies and infrastructure to reduce energy-related emissions.

VPU Integrated Resource Plan

The VPU 2023 Integrated Resource Plan (IRP) presents a comprehensive 20-year strategy that outlines how the City of Vernon plans to continue to meet the electric service needs of customers with reliable and environmentally responsible energy development and procurement at competitive and stable rates. It outlines how VPU plans to not only meet these energy and capacity needs, but also comply with various regulatory and statutory initiatives to generate clean energy, consider physical and operational constraints, and meet other state and local priorities.

The IRP outlines a process for charting a resource acquisition strategy that balances supply and demand. It favors procuring reliable, affordable, renewable, and zero-carbon energy balanced against forecasted growth, and coupled with transportation and building electrification demands, energy efficiency and demand-side management initiatives, and DERs.[9]

4.6.2.1 Existing Conditions

Total energy usage in California was approximately 6,882 trillion British thermal units (Btu) in the year 2022, the most recent year for which this data was available[10]. Out of the 50 states, California is ranked second in total energy consumption and 49th in energy consumption per capita. The breakdown by sector was approximately 17.6 percent (for residential uses, 17.4 percent for commercial uses, 22.5 percent for industrial uses, and 42.6 percent for transportation[11]. This energy is primarily supplied in the form of natural gas, petroleum, nuclear electric power, and hydroelectric power.

Electricity

In 2022, a total of approximately 68,484 gigawatt hours (GWh) of electricity was consumed in Los Angeles County[12]. In 2022, 66 percent of electricity use was consumed by the commercial and industrial sectors with the remainder consumed by the residential sector.

Vernon Public Utility (VPU) is the City of Vernon's municipal energy utility and would provide electricity service to the project site. VPU provides electricity to almost 2,000 customers, mostly commercial and industrial, through locally generated power and purchased power sourced from renewables, natural gas, market purchases, and nuclear resources. This includes the Malburg Generating Station (MGS), a city-owned combined-cycle natural gas-fired generating plant, which will supply 32% of the City's 2024 energy mix. The largest portion will be from renewable resources (43%), with remaining resources coming from market purchases (15%), nuclear resources (8%), and large hydro (1%).[13]

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[9] VPU 2023 Integrated Resource Plan, page 2-2, https://www.cityofvernon.org/government/public-utilities/integrated-resource-plan

[10] U.S. Energy Information Administration "California Energy Consumption Estimates, 2022" https://www.eia.gov/state/print.php?sid=CA

[11] United States Energy Information Administration. *State Profile and Energy Estimates, 2022.* https://www.eia.gov/state/?sid=CA#tabs-2.

[12] California Energy Commission. Energy Consumption Data Management System. "Electricity Consumption by County." http://ecdms.energy.ca.gov/elecbycounty.aspx.

[13] City of Vernon Environmental Sustainability Action Plan, December 2023. pages 18-19 https://www.cityofvernon.org/government/city-administration/health-wellness/sustainability

VPU serves about 1,900 mainly commercial and industrial electric customers with electric sales of approximately 1,151 GWh annually and peak loads of approximately 189 MW in the summer and 174 MW in the winter.[14]

4.6.3 Environmental Impact Discussion

For purposes of analyzing potential Energy Resource related impacts, it is necessary to quantify the potential impacts of the VBGF and the GEP separately.

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

Construction (VBGF and GEP)

Construction of the GEP and the VBGF will take place simultaneously as the VBGF is a component of the overall Project Therefore any potential impacts of construction of the GEP would include those of the VBGF.

Construction would require energy for the manufacture and transportation of building materials, site preparation and grading, and the actual construction of the buildings and infrastructure. As discussed in Section 2.4, GIC Vernon has proposed that the project would implement measures to minimize the idling of construction equipment.

Therefore, the construction phase of the project would create a less-than-significant impact on local and regional energy supplies and a less-than-significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources. (**Less Than Significant Impact**)

VBGF Operation

Energy would be consumed by the VBGF during regular testing and maintenance of the 40 emergency backup generators. The total number of hours of operation for reliability purposes (i.e., readiness testing and maintenance) for the gensets would be limited by the data center to no more than 50 hours per genset annually. The primary fuel for the gensets would be renewable diesel, with ultra-low sulfur diesel (USLD or conventional) as backup fuel. Renewable diesel is a direct replacement alternative to conventional diesel fuel for the project's gensets. It is not a fossil fuel and is made of nonpetroleum renewable resources (vegetable oil or other biomass feedstock such as wood, agricultural waste, garbage, etc.). Renewable diesel is produced through various thermochemical processes, such as hydrotreating, gasification, and pyrolysis. For informational purpose,

[14] VPU 2023 Integrated Resource Plan, page 2-1, https://www.cityofvernon.org/government/public-utilities/integrated-resource-plan

it is noted that renewable diesel is not the same as biodiesel and has different fuel properties than biodiesel.

The total quantities of renewable diesel or ULSD diesel fuel used for all the gensets operating at full load would be approximately 9,714 barrels per year (bbl/yr).[15] California has a renewable diesel and ULSD fuel supply of approximately 6,300,000 bbl/yr[16] and 310,000,000 bbl/yr[17], respectively. The project's use of fuel constitutes a small fraction of the renewable diesel and ULSD's available resources (less than 0.1 and 0.002 percent, respectively)—the supply from the combination of these two resources is more than sufficient to meet the project's necessary demand. Moreover, the current supply of renewable diesel does not account for more refineries that are schedule to come online nor the effect of any future import supply that would bolster renewable diesel's available resource. Since the VBGF would use renewable diesel, with ULSD as backup supply, the impacts from the project's use of fuel on energy resources would be less than significant.

It is important to note that maintenance and readiness testing of the gensets are crucial to the project's viability. The most important data center criterion is reliability. Crucial public services, such as the 911, Offices of Emergency Management, and utility infrastructure, are increasingly using data centers for their operation. The reliability and data security requirements of a data center would be compromised by limiting or reducing fuel consumption for maintenance and readiness testing. This includes both the primary and redundant gensets. Even though the redundant gensets are purposed to provide backup service to the primary gensets, their operational reliability is equally important, and they are designed to start up at the same time as the primary gensets during emergency operations, with each genset running at 75 percent capacity if any of the primary gensets fails to operate, a redundant one must be immediately ready to run to assume the lost load. So, it is crucial that the redundant gensets be regularly tested and maintained according to the same testing and maintenance requirements as the primary ones and as prescribed by the manufacturer's warranty conditions.

The generator models selected for this project have an efficiency rating comparable to other Tier 4 commercially available diesel-fueled generators of similar generating capacity. Because the generators would only be operated when necessary for testing and maintenance, and would not be used regularly for electricity generation, the VBGF would not result in a wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources. Additionally, the VBGF would not have a significant adverse

[15] Calculated as: (204 gal/hr x 50 hours per year x 40 generators) = 408,000 gallons per year = 9,714 bbl/yr.
[16] This is the annual production of 265,000,000 gallons obtained from the U.S. Energy Information Administration's U.S. Renewable Diesel Fuel and Other Biofuels Plant Production Capacity
[17] This is the sum of the annual production of 108,657,000 bbl and available stocks of 202,075,000 bbl obtained from the Energy Commission's Weekly Fuels Watch Report for 2022 (latest annual report available).

effect on local or regional energy supplies and will not create a significant adverse impact on California's energy resources. (**Less Than Significant Impact)**

GEP Operation

Operation of the GEP would consume energy for multiple purposes including, but not limited to, building heating and cooling, lighting, appliances and electronics. Power Usage Effectiveness (PUE) is a metric used to compare the efficiency of facilities that house computer servers. It is defined as the ratio of total facility energy draw (including the facility's mechanical and electrical loads) to IT server electrical power draw (PUE = total facility source energy [including the Critical IT source energy]/ Critical IT source energy). While the PUE is always greater than 1, the closer it is to 1, the greater the portion of the power drawn by the facility that goes to the Critical IT server equipment.

The PUE has been used as a guideline for assessing and comparing energy and power efficiencies associated with data centers since 2007. According to the Uptime Institute 2021 Annual Data Center Survey Results the current average annualized PUE is 1.57[18]. As discussed in Section 2.2.3.2 GIC Vernon estimates that for the GEP, the maximum peak PUE is expected to be 1.5, the actual annualized PUE will be closer to 1.3, both well below the industry average. The project's peak operation PUE estimate is based on design assumptions.

As described in Section 2.3.2 the design for GEP is for an efficient average rack power rating of between 5 and 7 kW.

The GEP would also be designed and constructed to meet applicable Title 24 and CALGreen standards and will include green building measures to reduce energy consumption. The GEP would also utilize lighting control to reduce energy usage for new exterior lighting and air economization for building cooling. Water efficient landscaping and ultra-low flow plumbing fixtures in the building would be implemented to limit water consumption. GIC Vernon is incentivized to reduce electricity use because it is the major operating cost for the GEP. Due to the energy efficiency measures incorporated into the facility, the GEP would not result in a wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources. **(Less Than Significant Impact)**

[18] https://uptimeinstitute.com/about-ui/press-releases/uptime-institute-11th-annual-global-data-center-survey

4.6.3.2 Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

VBGF Operation

The VBGF's use of renewable diesel fuel is a significant departure from typical power generating facilities that use fossil fuels as their primary source of energy, as the VBGF's generators would operate only during testing and during emergencies when the primary source of energy to operate the GEP, electricity from VPU, is cut off. The VBGF's use of renewable diesel fuel would not obstruct VPU's ability to meet the requirements of SB 100. **(Less Than Significant Impact)**

GEP Operation

During operation, the GEP would use both nonrenewable energy resources and renewable energy resources in VPU's portfolio of resources. VPU's 2023 Integrated Resource Plan shows that for 2024 its energy resource mix consisted of 43.4 percent renewable, 1.6 percent hydro, 7.7 percent nuclear, 32.2 percent natural gas and 15.1 percent market purchases. As VPU procures more renewable energy for its portfolio, less nonrenewable energy sources will be needed and therefore less nonrenewable power would be provided to the GEP.

Additionally, GIC Vernon has proposed **PDM GHG-2** as discussed in Section 4.8, which would require the Project Owner to either participate in a renewable energy program or participate with its own program to the same objective for 100 percent carbon-free electricity. Neither this measure nor the GEP's electricity demand would obstruct VPU from implementing its 2023 Integrated Resource Plan to achieve the State's goals pursuant to SB 100. In fact, large electricity users like the GEP enable utilities to better contract for future renewable energy resources at scale. In other words, with the GEP purchasing electricity from VPU in large quantities with a foreseeable load ramp, it allows VPU to purchase renewable energy with more certainty, enabling VPU to procure larger renewable energy contracts at scales that would allow renewable energy to be delivered to other customers.

Through the city's design review process, GEP would be required to comply with the California Green Building Code and would include green building measures to reduce energy consumption. Examples of these measures include:

- Utilizing lighting control to reduce energy usage; and
- Air economization integrated into the central air handling system for building cooling.

Through energy efficient design and increased renewable electricity use, the Project would neither conflict with, nor obstruct state or local plans for renewable energy or energy efficiency, and therefore would have no adverse impact on them. **(Less Than Significant Impact)**

4.6.4 Project Design Measures

No Project Design Measures are necessary as the Project is designed to ensure no significant energy or energy resource-related environmental impacts.

4.6.5 Governmental Agencies

The only governmental agency affected by the Project's energy use is the City of Vernon.

4.7 GEOLOGY AND SOILS

The following discussion is supported by a Geotechnical Investigation Report (December, 2024) prepared by Langan, CA Inc. The report is attached as Appendix E of this Application.

4.7.1 CEQA Checklist

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Geology and Soils				
Would the project:				
1) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
- 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)?	☐	☐	☒	☐
- Strong seismic ground shaking?	☐	☐	☒	☐
- Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
- Landslides?	☐	☐	☒	☐
2) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
3) 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?	☐	☐	☒	☐
4) Be located on expansive soil, as defined in the current California Building Code, creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
5) 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?	☐	☐	☐	☒
6) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	☐	☐	☒	☐

4.7.2 Environmental Setting

4.7.2.1 Regulatory Framework

State

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed following the 1971 San Fernando earthquake. The act regulates development in California near known active faults due to hazards associated with surface fault ruptures. Alquist-Priolo maps are distributed to affected cities, counties, and state agencies for their use in planning and controlling new construction. Areas within an Alquist-Priolo Earthquake Fault Zone require special studies to evaluate the potential for surface rupture to ensure that no structures intended for human occupancy are constructed across an active fault.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act (SHMA) was passed in 1990 following the 1989 Loma Prieta earthquake. The SHMA directs the California Geological Survey (CGS) to identify and map areas prone to liquefaction, earthquake-induced landslides, and amplified ground shaking. CGS has completed seismic hazard mapping for the portions of California most susceptible to liquefaction, landslides, and ground shaking, including the central San Francisco Bay Area. The SHMA requires that agencies only approve projects in seismic hazard zones following site-specific geotechnical investigations to determine if the seismic hazard is present and identify measures to reduce earthquake-related hazards.

California Building Standards Code

The California Building Standards Code (CBC) prescribes standards for constructing safer buildings. The CBC contains provisions for earthquake safety based on factors including occupancy type, soil and rock profile, ground strength, and distance to seismic sources. The CBC requires that a site-specific geotechnical investigation report be prepared for most development projects to evaluate seismic and geologic conditions, such as surface fault ruptures, ground shaking, liquefaction, differential settlement, lateral spreading, expansive soils, and slope stability. The CBC is updated every three years; the current version is the 2022 CBC.

California Division of Occupational Safety and Health Regulations

Excavation, shoring, and trenching activities during construction are subject to occupational safety standards for stabilization by the California Division of Occupational Safety and Health (Cal/OSHA) under Title 8 of the California Code of Regulations and Excavation Rules. These regulations minimize the potential for instability and collapse that could injure construction workers on the site.

Paleontological Resources Regulations

Paleontological resources are the fossilized remains of organisms from prehistoric environments found in geologic strata. They range from mammoth and dinosaur bones to impressions of ancient animals and plants, trace remains, and microfossils. These are valued for the information they yield about the history of the Earth and its past ecological settings.

Section 5097.5 prohibits “knowing and willful” excavation, removal, destruction, injury, and defacement of any “vertebrate paleontological site, including fossilized footprints,” on public lands, except where the agency with jurisdiction has granted express permission. “As used in this section, ‘public lands’ means lands owned by, or under the jurisdiction of, the state, or any city, county, district, authority, or public corporation, or any agency thereof.”

Public Resources Code (PRC) Section 30244 requires reasonable mitigation for impacts on paleontological resources that occur as a result of development on public lands.

The sections of the California Administrative Code relating to the State Division of Beaches and Parks afford protection to geologic features and “paleontological materials” but grant the director of the State Park system authority to issue permits for specific activities that may result in damage to such resources, if the activities are in the interest of the State park system and for State Park purposes (California Administrative Code, Title 14, Section 4307 – 4309).

4.7.2.2 Existing Conditions

The site is approximately 12 acres and located at the northeast corner of the intersection of East Vernon Avenue and Soto Street. The site is bound on the north by a vacant lot and the Los Angeles River Channel and on the east by existing industrial developments.

The site is within the southern half of a property formerly developed with an industrial facility that was recently demolished. The prior development included approximately eight industrial buildings and an engine room associated with the most recent site usage as a meat processing and distribution facility. Approximately five of the prior industrial buildings and the engine room were located within the site. An access tunnel crossing beneath East Vernon Avenue and Soto Street was also present on the south side of the site. Subterranean building and tunnel components within the site were demolished, including

subterranean building levels, foundations, and floor slabs and the areas were subsequently backfilled, typically with processed miscellaneous base.

Soil Conditions

Fill materials were encountered in the current and prior borings ranging in thickness from approximately one to 15 feet. The fill consists of engineered fill and artificial fill noting that for the purposes of this report, engineered fill is fill that was placed under our observation, documentation, and testing; and artificial fill is fill that we did not observe, document nor test during placement.

Engineered fill is present at the locations shown on Figure 2 of Appendix E and was encountered in boring B-18 and generally consists of dense to very dense sandy gravel noting that the fill materials are comprised of processed miscellaneous base (PMB) generated from demolition of the prior on-site structures.

Artificial fill generally consists of loose to medium dense sand, silty sand, and sand with silt with varying amounts of gravel. The underlying native soils consist of alluvial deposits composed of loose to medium dense sand, silty sand to depths of approximately eight to ten feet bgs. The upper alluvial sand and silt were typically underlain by medium dense to dense sand, and silty sand, sand with silt, and clayey sand to depths of approximately 28 to 35 feet.

A fine-grained layer consisting primarily of stiff to hard clayey and silty soils was encountered in the borings and CPTs beneath the medium dense to dense sandy soils to depths of approximately 33 to 49 feet below ground surface (bgs).

Primarily dense to very dense sand, gravelly sand, clayey sand, and silty sand with varying amounts of gravel were encountered below the fine-grained layer to the maximum depth explored of approximately 75 feet bgs.

Groundwater

Groundwater was not encountered in the current or prior borings to a maximum drilled depth of approximately 66 feet bgs. Based on a review of the *Seismic Hazard Evaluation of the Los Angeles and South Gate 7.5-Minute Quadrangles, Los Angeles County, California, Seismic Hazard Zone Reports 029 & 34*, the historical high groundwater level (HHGWL) at the site is greater than approximately 60 feet bgs as shown on Figure 4 in Appendix E.

Seismicity and Seismic-Related Hazards

The site is located near the northwestern end of the Peninsular Ranges Geomorphic Province of Southern California. The Peninsular Ranges Geomorphic Province consists

of a series of mountain ranges separated by northwest trending valleys that are subparallel to faults that branch from the San Andreas Fault.

More specifically, the site is within the Central Block of the Los Angeles Basin, an extensive sediment-filled depression bound by the San Gabriel Mountains and Santa Monica Mountains to the north, and the Pacific Ocean on the west, the Palos Verdes Peninsula on the west, the Santa Ana Mountains on the southeast, and the Puente, San Jose, and Chino Hills on the northeast. The basin's structural history includes extension and strike-slip faulting, followed by oblique contraction via thrusting and strike-slip faulting (Yerkes et al, 1965).

Regional geologic maps of the area by Campbell et al. (2014) indicates the site is underlain by late Pleistocene-aged, alluvial fan deposits (map unit Qya2). This soil is described as 'Unconsolidated, generally friable, stream-deposited silt, sand and gravel on flood plains, locally including related alluvial fans and streambeds.'

The data from the current exploration borings are generally consistent with the geologic conditions summarized by Campbell et al. (2014).

Figure 5 of Appendix E represents a regional geologic map depicting the surficial geologic deposits at the site.

The site is in an active seismic area that has historically been affected by generally moderate to occasionally high levels of ground motion. Therefore, the proposed development will probably experience moderate to potentially high levels of ground motion from nearby faults as well as ground motions from other area active seismic areas of the southern California region.

A search of the USGS ANSS Comprehensive Earthquake Catalog (ComCat) using a web-based Earthquake Archive Search and URL builder tool, confirmed that as of May 15, 2023, 40 earthquakes with magnitudes of 5.0 or greater have occurred within a 100-km radius of the site since 1800 as shown on Figure 6A and 6B of Appendix E.

A review or the *California Geological Survey (CGS) Earthquake Zones of Required Investigation map for the Los Angeles and South Gate Quadrangles, and the* City of Vernon General Plan – Safety Element. Based on the review, the site is not located within a State- or City-designated active fault zone.

Therefore, the potential for ground surface rupture is very low.

The site location relative to the mapped seismic hazard zones is presented on Figure 7 of Appendix E.

Liquefaction is a phenomenon in which saturated, cohesionless soils lose their inherent shear strength and stiffness due to build-up of excess pore water induced by cyclic loading, such as that caused by an earthquake. Liquefaction potential depends on several

factors, primarily the (a) relative density and type of soil, (b) the depth to the groundwater, (c) overburden pressures, and (d) the duration and intensity of seismic shaking (PGA). Loose, saturated granular materials (sands and low to non-plastic silts) are most susceptible to liquefaction. Cyclic softening is a phenomenon in which saturated silts and clays exhibit significant strains and strengths loss during cyclic loading.

Liquefaction generally occurs in saturated, loose to medium dense granular soil and soft to moderately firm non-plastic silts and clays because of strong ground shaking. As the density and/or particle size of the soil increases and as the confinement (overburden pressure) increases, the potential for liquefaction decreases.

The footprint of the GEP is not located within a State- or City-designated liquefaction hazard zone as shown on Figure 7 in Appendix E.

The historic high groundwater level for the site is sufficiently deep to preclude liquefaction potential during the design seismic event. Therefore, the potential for liquefaction at the site is very low.

Lateral spreading and ground lurching are seismically induced slope instability conditions that may occur where either liquefaction potential is present in conjunction with a nearby slope wherein a liquefiable layer daylights within an exposed slope face or cracks form on the slope surface during a seismic event due to relatively loose soil exposed on the slope.

The project site is generally flat, and the subsurface soils are not susceptible to liquefaction. Therefore, the potential for lateral spreading and ground lurching at the site is negligible.

Seismic (dry) settlement can occur in loose to medium dense, granular soil because of strong ground shaking. Loose and/or undocumented sand and silty sand were encountered in the upper approximately eight to 10 feet bgs at the site. The upper loose soils are subject to seismically induced settlement and the results of the preliminary analysis indicates approximately ½ inches may occur in these soils due to strong ground shaking at the site.

The site is not located in a zone of required investigation for Earthquake-Induced Landslides per CGS's Earthquake Zones of Required Investigation, Los Angeles, and South Gate Quadrangles, as shown on Figure 7 in Appendix E.

The site is relatively flat and there are no sloped boundary conditions. Thus, the potential for earthquake-induced landsliding is negligible at the site.

Hydro-collapse is a phenomenon that occurs when loose, predominately sandy soils are subjected to saturated conditions. The loose nature of these soils undergoes a decrease

in volume (i.e. densification) when the particle-to-particle contact is disturbed with the introduction of pore water, resulting in settlement that could manifested to the ground surface.

Based on data available from the current and prior laboratory testing, the upper loose granular soils are subject to hydro-collapse if saturated.

Based on information and maps available from the CGS, the site is not located within a Tsunami Inundation Area. Based on review of adjacent water bodies, the site is not subject to inundation from seiche. Based on Review of the City of Vernon General Plan, the site is located within inundation areas from the Sepulveda and Hansen Dams. Inundation scenarios from either of these dams are not available from the Dam Breach Inundation Map Web Publisher hosted by the California Division of Safety of Dams (DSOD).

Land Subsidence

Land subsidence may be induced from withdrawal of oil, gas, or water from wells. Based on a search of the CalGEM (formerly known as Division of Oil, Gas, and Geothermal Resources [DOGGR]) GIS Well Finder online tool, the site is not located within an Oil/Gas field; active and inactive oil or gas wells are not located onsite.

According to review of the available information from CalGEM, the likelihood of land subsidence caused by oil or gas withdrawal from oil wells is very low.

Expansive Soils

Expansive soils swell and shrink when the moisture content in the soil changes due to cyclic wet/dry weather cycles, installation of irrigation systems, change in landscape plantings, or changes in grading. Swelling and shrinking soils can result in differential movement of structures including floor slabs and foundations, and site work including hardscape, utilities, and sidewalks.

Based on the results of testing performed on samples collected from our current borings and prior borings in or within proximity to the site, the upper on-site soils have a very low potential for expansion.

Paleontological Resources

The site is located near the northwestern end of the Peninsular Ranges Geomorphic Province of Southern California. The Peninsular Ranges Geomorphic Province consists

of a series of mountain ranges separated by northwest trending valleys that are subparallel to faults that branch from the San Andreas Fault.

More specifically, the site is within the Central Block of the Los Angeles Basin, an extensive sediment-filled depression bound by the San Gabriel Mountains and Santa Monica Mountains to the north, and the Pacific Ocean on the west, the Palos Verdes Peninsula on the west, the Santa Ana Mountains on the southeast, and the Puente, San Jose, and Chino Hills on the northeast.

The Peninsular Ranges extend from the Mexican border in the south to the Transverse Ranges in the north and northeast and are bordered by the Pacific Ocean on the west and the Colorado Desert on the east.

The core of the Peninsular Ranges is made up of Mesozoic plutonic rocks and represents the roots of a magmatic arc formed by active subduction along the Pacific Plate boundary (Harden 2004). Two main batholiths (western and eastern) form the core of the Peninsular Ranges. The western batholith is 140 to 105 million years old (Ma) and consists of mafic plutonic rocks, while the eastern batholith is 99 to 92 Ma and is made of more silica-rich granodiorites and tonalities (Kimbrough et al. 2001). These plutonic rocks intruded into the older rocks of a Paleozoic through Jurassic carbonate platform and forearc basin, heavily metamorphosing them locally (Harden 2004). Above these plutonic rocks, around 130 to 120 Ma, the Santiago Peak Volcanics were deposited as primarily andesitic and silicic flows, and then metamorphosed by the batholith emplacement (Fife et al. 1967). Cretaceous sedimentary rocks deposited as turbidity currents overlie the plutons and volcanic rocks (Kimbrough et al. 2001). These rocks are in turn overlain by more recent sedimentary deposits leading up to the present day. These deposits were marine through the Eocene and then shifted to terrestrial volcanic and sedimentary strata by the Oligocene and lower Miocene (Powell 1993).

According to the University of California Museum of Paleontology, Berkeley, Los Angeles County has over 2,100 recorded paleontological sites. None of the recorded sites are identified as located in the City of Vernon; a number of the recorded sites do not have a specific location identifier[19]. Notwithstanding any documented discoveries, it is not possible to conclude that the site has low potential for discovery of paleontological resources.

The potential to disturb paleontological resources could occur during the construction activities requiring earth moving, such as grading, trenching, excavation for foundations, and installation of support structures, where native soil would be disturbed. The maximum depth of soil disturbance is estimated to be up to 10 feet for over-excavation within the building footprint and up to 50 feet for foundation auger cast pile installation.

It is therefore possible that undiscovered paleontological resources could be encountered during ground-disturbing activities. Damage to or destruction of a paleontological resource would be considered a potentially significant impact under local, state, or federal criteria.

4.7.3 Environmental Impact Discussion

For purposes of analyzing potential Geology and Soils- related impacts, it is not necessary or prudent to separate the potential impacts of the VBGF and the GEP. Therefore, the following analysis uses the term "Project" which encompasses both construction and operation of the VBGF, the GEP and all related ancillary facilities.

4.7.3.1 Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving 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; strong seismic ground shaking; seismic-related ground failure, including liquefaction; or landslides.?

As discussed in Section 4.7.2.2, there are no known active or potentially active faults crossing the project site. However, the site is in an active seismic area that has historically been affected by generally moderate to occasionally high levels of ground motion. Therefore, the proposed development will probably experience moderate to potentially high levels of ground motion from nearby faults as well as ground motions from other area active seismic areas of the southern California region.

Geologic conditions on the site would require the new building be designed and constructed in accordance with standard engineering techniques and current California Building Code requirements, to avoid or minimize potential damage from seismic shaking and liquefaction on the site.

The project site is not located in a mapped liquefaction hazard zone nor due to the lack of high groundwater is not subject to liquefaction. The site is not located within a landslide hazard zone. The project incorporates Project Design Measure **PDM GEO-1** outlined in Section 4.7.4 below. With the implementation of **PDM GEO-1** of this the project will not result in earthquake-related impacts. **(Less than Significant Impact)**

4.7.3.2 Would the project result in substantial soil erosion or the loss of topsoil?

Ground disturbance at the site would be required for grading and construction of the on-site improvements. Ground disturbance would expose soils and increase the potential for wind or water related erosion and sedimentation at the site until construction is complete. Compliance with the erosion control measures, as required by the National Pollutant Discharge Elimination System (NPDES) is the primary means of enforcing erosion control

measures through the grading and building permit process. Construction activities would be subject to the requirements of the regulatory programs and policies in place and, therefore, would have a less than significant soil erosion impact. **(Less than Significant Impact)**

4.7.3.3 Would 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?

The project site soils have a low potential for liquefaction. The site is not located within a landslide hazard zone. **(Less than Significant Impact)**

4.7.3.4 Would the project be located on expansive soil, as defined in the current California Building Code, creating substantial direct or indirect risks to life or property?

The project site is not located on expansive soil as defined in Section 1803.5.3 of the CBC. **(Less than Significant Impact)**

4.7.3.5 Would 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?

The project site is located within an urban area of City of Vernon where sewers are available to dispose wastewater from the project site. Therefore, the project site would not need to support septic tanks or alternative wastewater disposal systems. **(No Impact)**

4.7.3.6 Would the project directly or indirectly destroy a unique paleontological resource or site or unique geological feature?

As discussed above, the site has a potential for the discovery of paleontological resources. Damage to or destruction of a paleontological resource would be considered a potentially significant impact under local, state, or federal criteria. The GEP would require excavation of depths of up to 10 feet and up to 50 feet for foundation auger cast pile installation. Although unlikely, paleontological resources could be encountered during construction. GIC Vernon has incorporated **PDM GEO-2** to address the potential for discovery of paleontological resources during excavation in native materials. See Section 4.7.4.

With the implementation of **PDM GEO-2** any potential impacts from the excavation activities would be reduced to less than significant levels. **(Less than Significant Impact).**

4.7.4 Project Design Measures

No mitigation measures are necessary because the project applicant has incorporated the following Project Design Measures into the project.

PDM GEO-1: In order to ensure the project design conforms to the requirements of a final geotechnical engineering investigation and California and local building standards and codes, the following is proposed as mitigation incorporated into the project. Incorporation will ensure seismic hazards are reduced to less than significant levels.

To avoid or minimize potential damage from seismic shaking, the project would be built using standard engineering and seismic safety design techniques. Building redevelopment design and construction at the site shall be completed in conformance with the recommendations of a design-level geotechnical investigation, which will be included in a report to the City. The report shall be reviewed and approved by the City of Vernon's Building Division as part of the building permit review and issuance process. The building shall meet the requirements of applicable Building and Fire Codes, including the 2022 California Building Code, as adopted or updated by the City. The project shall be designed to withstand potential geologic hazards identified on the site and the project shall be designed to reduce the risk to life or property to the extent feasible and in compliance with the Building Code.

PDM GEO-2: Prior to the commencement of construction, the applicant shall secure the services of a qualified paleontological specialist. The specialist shall prepare a Worker Environmental Awareness Program (WEAP) to instruct site workers of the obligation to protect and preserve valuable paleontological resources for review by the City of Vernon. This program shall be provided to all construction workers via a recorded presentation and shall include a discussion of applicable laws and penalties; samples or visual aids of resources that could be encountered; instructions regarding the need to halt work in the vicinity of any potential paleontological resources encountered; and measures to notify their supervisor, the applicant, and the specialists.

The applicant shall secure the services of a qualified professional paleontologist, as defined by the Society of Vertebrate Paleontology, to be on-call prior to the commencement of construction. The paleontologist shall be experienced in teaching non-specialists to recognize fossil materials and how to notify supervisors in the event of encountering a suspected fossil. If suspected fossils are encountered during construction, the construction workers shall halt construction within 50 feet of any potential fossil find and notify the paleontologist, who shall evaluate its significance.

If a fossil is encountered and determined to be significant and avoidance is not feasible, the paleontologist will develop and implement an excavation and salvage plan in accordance with Society of Vertebrate Paleontology standards. Construction work in the

immediate area shall be halted or diverted to allow recovery of fossil remains in a timely manner. Fossil remains collected shall be cleaned, repaired, sorted, and cataloged, along with copies of all pertinent field notes, photos, and maps.

The paleontologist shall prepare a paleontological resource monitoring report that outlines the results of the monitoring program and any encountered fossils. The report shall be submitted to the City of Vernon for review and approval. The report and any fossil remains collected shall be submitted to a scientific institution with paleontological collections.

4.7.5 Governmental Agencies

The only governmental agency that would be affected by the project is the City of Vernon as it is the agency with authority to implement the building codes during its project review and monitoring of construction.

4.8 GREENHOUSE GAS EMISSIONS

The following discussion is based, in part, on emission calculations prepared for the project by Atmospheric Dynamics, Inc., dated February 2025 and included in Appendix B.

4.8.1 CEQA Checklist

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Greenhouse Gas Emissions				
Would the project:				
1) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
2) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

4.8.2 Environmental Setting

4.8.2.1 Background Information

Gases that trap heat in the atmosphere, GHGs, regulate the earth's temperature. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate. In GHG emission inventories, the weight of each gas is multiplied by its GWP and is measured in units of CO2 equivalents (CO2e). The most common GHGs are carbon dioxide (CO2) and water vapor but there are also several others, most importantly methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF6). These are released into the earth's atmosphere through a variety of natural processes and human activities. Sources of GHGs are generally as follows:

- CO2 and N2O are byproducts of fossil fuel combustion.
- N2O is associated with agricultural operations such as fertilization of crops.
- CH4 is commonly created by off-gassing from agricultural practices (e.g., keeping livestock) and landfill operations.
- Chlorofluorocarbons (CFCs) were widely used as refrigerants, propellants, and cleaning solvents, but their production has been stopped by international treaty.

- HFCs are now used as a substitute for CFCs in refrigeration and cooling.
- PFCs and SF6 emissions are commonly created by industries such as aluminum production and semiconductor manufacturing.

An expanding body of scientific research supports the theory that global climate change is currently causing changes in weather patterns, average sea level, ocean acidification, chemical reaction rates, and precipitation rates, and that it will increasingly do so in the future. The climate and several naturally occurring resources within California are adversely affected by the global warming trend. Increased precipitation and sea level rise will increase coastal flooding, saltwater intrusion, and degradation of wetlands. Mass migration and/or loss of plant and animal species could also occur. Potential effects of global climate change that could adversely affect human health include more extreme heat waves and heat-related stress; an increase in climate-sensitive diseases; more frequent and intense natural disasters such as flooding, hurricanes and drought; and increased levels of air pollution.

4.8.2.2 Regulatory Framework

State

Assembly Bill 32

Under the California Global Warming Solutions Act, also known as AB 32, CARB established a statewide GHG emissions cap for 2020, adopted mandatory reporting rules for significant sources of GHGs, and adopted a comprehensive plan, known as the Climate Change Scoping Plan, identifying how emission reductions would be achieved from significant GHG sources.

In 2016, SB 32 was signed into law, amending the California Global Warming Solution Act. SB 32, and accompanying Executive Order B-30-15, require CARB to ensure that statewide GHG emissions are reduced to 40 percent below the 1990 level by 2030. CARB updated its Climate Change Scoping Plan in December of 2017 to express the 2030 statewide target in terms of million metric tons of CO2E (MMTCO2e). Based on the emissions reductions directed by SB 32, the annual 2030 statewide target emissions level for California is 260 MMTCO2e.

Senate Bill 375

SB 375, known as the Sustainable Communities Strategy and Climate Protection Act, was signed into law in September 2008. SB 375 builds upon AB 32 by requiring CARB to develop regional GHG reduction targets for automobile and light truck sectors for 2020 and 2035.

For the Southern California Association of Governments (SCAG), which is the metropolitan planning organization for the region where the proposed project is located; CARB established a draft target of 8 percent for 2020 and 13 percent for 2035, subject to SCAG Board approval. Of note, the proposed reduction targets explicitly exclude emission reductions expected from the AB 1493 and low carbon fuel standard regulations. Draft targets were finalized by Executive Order on February 15, 2011.

Other Implementing Laws and Regulations

There are a number of laws that have been adopted as a part of the State of California's efforts to reduce GHG emissions and their contribution to climate change. State laws and regulations related to growth, development, planning and municipal operations in Vernon include, but are not limited to:

- California Mandatory Commercial Recycling Law (AB 341)
- California Water Conservation in Landscaping Act of 2006 (AB 1881)
- California Water Conservation Act of 2009 (SBX7-7)
- Various Diesel-Fuel Vehicle Idling regulations in Chapter 13 of the California Code of Regulations
- Building Energy Efficiency Standards (Title 24, Part 6)
- California Green Building Code (Title 24, Part 11)
- Appliance Energy Efficiency Standards (Title 20)

Implementation of the policies in the City's General Plan as a part of the City's development permitting and other programs provides for meeting building standards for energy efficiency, recycling, and water conservation, consistent with the laws and regulations designed to reduce GHG emissions.

Local

City of Vernon General Plan

The Vernon General Plan includes the following policies that address the reduction of GHG gas emissions on a project level basis.

Goal R-1 Conserve and protect the region's water and energy resources.

> **Policy R-1.2:** Support the use of energy-saving designs and equipment in all new development and reconstruction projects.

Goal R-2 Contribute to the continued gradual improvement of air quality in the South Coast Air Basin.

Policy R-2.1: Coordinate and cooperate with the South Coast Air Quality Management District and Southern California Association of Governments in efforts to implement the regional Air Quality Management Plan.

Policy R-2.2: Encourage and facilitate the use of public transportation to reduce emissions associated with automobile use.

Policy R-2.4: Maximize the amount of clean electrical power produced while minimizing emissions from power production plants.

Goal CI-6. Improve the City's capability to generate and supply electric power to achieve energy self-sufficiency.

Policy CI-6.5: Expand the City's capability to generate and provide natural gas to enhance the power/energy supply system.

City of Vernon Environmental Sustainability Action Plan

In December 2023, the City of Vernon adopted its Environmental Sustainability Action Plan to strengthen the City's sustainability policies including the reduction of greenhouse gas emissions throughout the community. The following goals and strategies are relevant to the proposed project.

Goal G1 Reduce community GHG emissions in alignment with state targets

Goal E1 Transition to clean, renewable energy sources: 60% by 2030, 90% by 2035, 95% by 2040, and 100% by 2045.

E1-a: Procure and deliver more renewable electricity to the grid.

Goal E2 Improve energy efficiency of new and existing buildings throughout the community

E2-a: Encourage building electrification and energy efficiency.

Goal T1 Reduce traffic congestion and vehicle emissions

T1-a: Reduce truck emissions of criteria air pollutants.

4.8.2.3 Existing Conditions

Unlike emissions of criteria and toxic air pollutants, which have regional and local impacts, emissions of GHGs have a broader, global impact. Global warming is a process whereby GHGs accumulating in the upper atmosphere contribute to an increase in the temperature of the Earth and changes in weather patterns.

4.8.3 Environmental Impact Discussion

GHG emissions worldwide contribute, on a cumulative basis, to the significant adverse environmental impacts of global climate change. No single land use project could generate sufficient GHG emissions on its own to noticeably change the global average temperature. The combination of GHG emissions from past, present, and future projects in Pittsburg, the entire state of California, and across the nation and around the world, contribute cumulatively to the phenomenon of global climate change and its associated environmental impacts.

As outlined in the CEQA Guidelines, a lead agency may analyze and mitigate significant GHG emissions in a plan for the reduction of GHG emissions that has been adopted in a public process following environmental review. According to the City of Vernon Environmental Sustainability Action Plan, the City is working on development of a Climate Action Plan[20] which will set forth a plan for the reduction of GHG emissions. Since the City's Climate Action Plan has not yet been adopted, the GHG impacts from project-related emission sources are evaluated using the SCAQMD CEQA Guidelines and supporting documents. The SCAQMD CEQA Guidelines set significance thresholds for stationary sources.

The SCAQMD has established guidance for stationary sources such as the project's backup generators. The threshold to determine the significance of an impact from GHG emissions is 10,000 metric tons of CO_2e per year. This threshold is consistent with stationary source thresholds adopted by other air quality management districts throughout the state.

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

Construction Emissions

Project construction GJG emissions of were estimated. Detailed construction emission calculations are presented in Appendix B, Sub-Appendix AQ4. Onsite construction emissions from construction of the project will result from site preparation and grading activities, building erection and parking lot construction activities, "finish" construction activities, and the use of onsite construction equipment. Construction emissions from the project include emissions from the VBGF and GEP. Offsite construction emissions will be derived primarily from materials transport to and from the site, worker travel, etc. Emissions from the continuous approximate 16-month construction period were estimated using the CalEEMod program. As shown on Table 4.3-6 in Section 4.3, the .

[20] Identified to be prepared and adopted within the 2027-2135 timeframe.

GHG emissions from the entire construction period are estimated to be 1080.3 metric tons.

Neither the City nor SCAQMD have an adopted threshold of significance for construction related GHG emissions. Because construction of the project would be temporary in nature and would not result in a permanent increase in emissions, the project would not interfere with the implementation of AB 32 or SB 32.

In addition, while not required to mitigate GHG emissions, the Project Owner has proposed **PDM AQ-1** (See Section 4.3), which includes the applicable best management practices for reduction of construction emissions contained in the SCAQMD Guidelines.

Stationary Source Emissions from Routine Generator Testing and Maintenance

The consumption of diesel fuel to test generators at the VBGF would result in direct CO_2 emissions. On an annual basis, the project's total operational emissions related to emergency backup generator maintenance and testing use would be approximately a maximum of 4392.3 metric tons of CO_2e per year (See Table 4.3-8 and in Appendix B, Sub-Appendix AQ1). This is well below the SCAQMD threshold for stationary sources of 10,000 metric tons per year of CO_2e for stationary sources. It should be noted that although it is not required to mitigate any impact, the Project Owner has proposed **PDM GHG-2** making renewable diesel fuel as its primary fuel source. This would indirectly reduce GHG emissions from the upstream manufacture of fuel for the generators.

GEP Operational Emissions

Overview of Project-Related GHG Emissions

In accordance with CEC guidance on other data center projects, a quantitative discussion of a project's GHG emissions. The quantification of emissions in the following discussion is included for informational purposes only.

GHG emissions from the proposed project would consist of emissions from vehicle trips to and from the building and emissions related to the generation of electricity used in the data center building. Data centers are an energy-intensive land use, requiring more electricity than other types of development. The primary function of the data center is to house computer servers, which require electricity and cooling 24 hours a day to operate.

GHG emissions generated by the GEP are summarized in Table 4.8-2.

Table 4.8-2: GEP Annual GHG Emissions	
Source	**Annual Emissions (Metric Tons of CO_2e)**
Miscellaneous Operations (area, energy. ,mobile, waste, water)	1616
Electricity Use[1]	0
Generator Testing and Maintenance	4058.2
Total	**3,518**
Notes: [1] Based on a carbon intensity factor of zero due Applicant Proposed Design Measure **PDM GHG 2** which ensures the Project will use 100% carbon free electricity or engage in a program to achieve the same objective . Without **PDM GHG-2** the indirect emissions from procurement of electricity using 2023 VPU carbon intensity projections would be 252,109.2 (Metric Tons of CO_2e. See Section 4.3 for calculation methodology)	

As shown in Table 4.8-2, the primary source of GHG emissions from the project is generator testing and maintenance. As discussed previously, the project's total operational emissions related to emergency backup generator maintenance and testing of 4,058.2 metric tons of CO_2e per year is well below the SCAQMD threshold for stationary sources of 10,000 metric tons per year of CO_2e for stationary sources. **PDM GHG-2** also ensures the project would utilize 100% carbon neutral energy or engage in a program to achieve the same objective, and therefore would result in zero GHG emissions from electricity use.

CEC Staff has requested prior data center project proponents to provide GHG emission calculations related to potential leakage of chiller refrigerant and is provided in Table 4.8-3.

Table 4.8-3 GHG Emissions from Cooling System Components

Parameter	Value	Unit
AC Chillers		
Refrigerant Type:	R-513A	
Refrigerant GWP[1]:	573	
Number of Chillers:	76	
Refrigerant Charge Per Chiller[2]:	540	lbs
Total Refrigerant Charge:	41,040	lbs
Estimated Annual Leak Rate:	7.0%	wt/year
Annual Emissions R-513A:	2872.8	lbs/yr
Annual Emissions CO_2e:	802.98	MT/yr
MUA Units		
Refrigerant Type:	R-454B	
Refrigerant GWP[1]:	466	
Number of MUA Units:	4	
Refrigerant Charge Per MUA unit[2]:	281.63	lbs
Total Refrigerant Charge:	1126.52	lbs
Estimated Annual Leak Rate:	7.0%	wt/year
Annual Emissions R-454B:	78.86	lbs/yr
Annual Emissions CO_2e:	17.93	MT/yr
DOAS Units		
Refrigerant Type:	R-454B	
Refrigerant GWP[1]:	466	
Number of MUA Units:	2	
Refrigerant Charge Per MUA unit[2]:	227.75	lbs
Total Refrigerant Charge:	455.5	lbs
Estimated Annual Leak Rate:	7.0%	wt/year
Annual Emissions R-454B:	31.89	lbs/yr
Annual Emissions CO_2e:	7.25	MT/yr
TOTAL Annual Emissions CO_2e:	**828.6**	**MT/yr**

Proposed Efficiency Measures

Overview: Power Usage Effectiveness During Operation

The data center industry utilizes a factor called the Power Utilization Efficiency Factor (PUE) to estimate the efficiency of its data centers. The PUE is calculated by dividing the total demand of the data center infrastructure serving the critical IT spaces (including IT load) by the Critical IT load itself. The theoretical peak PUE for the Worst Day Calculation would be 1.55 (Total 99.0 MW demand of Building on Worst Case Day divided by 64.0 MW Total Critical IT Load). The average annual PUE at full load would be 1.3 (Total 83.2

MW demand of Building average conditions divided by 64.0 MW Design Critical IT Load). These PUE estimates are based on design assumptions.

Energy and Water Use Efficiency Measures in Building Design

Due to the heat generated by the data center equipment, cooling is one of the main uses of electricity in data center operations. In order to reduce GHG emissions and reduce the use of energy related to building operations, the project proposes to implement the following efficiency measures:

- Daylight penetration to offices
- LED lighting fixtures and occupancy sensors
- Reflective roof surface
- Meet or exceed Title 24 requirements
- Electric vehicle (EV) parking
- Low flow plumbing fixtures
- Landscaping would meet City requirements for low water use
- Low GHG emission refrigerant in the project chillers
- High efficiency critical electrical equipment
- High efficiency HVAC equipment with economization features

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

2017 SCAQMD Clean Air Plan

As discussed in Section 4.3 Air Quality, the project supports the goals of the 2022 Clean Air Plan for protecting public health and the climate and is consistent with 2017 Clean Air Plan control measures of reducing exposure to TACs and reducing DPM emissions by:

- The VBGF will comply with all applicable rules and regulations of the SCAQMD regarding emissions of criteria and toxic pollutants.
- The proposed engines at the VBGF will comply with the applicable federal Tier 4 emissions standards for emergency standby electrical generation CI engines.
- The VBGF will obtain and maintain all required air quality related permits from the SCAQMD, and requirements imposed by the California Energy Commission.
- The GEP will implement BMPs to reduce criteria air pollutants during construction,
- The GEP will comply with applicable regulations that would result in energy and water efficiency including Title 24 and California Green Building Standards Code,

In addition, the project would not disrupt or hinder the implementation of applicable control measures in the 2022 Clean Air Plan.

General Plan Policies

The City of Vernon General Plan and the Environmental Sustainability Action Plan each have goals and policies to address sustainability aimed at reducing the City's contribution to GHG emissions. For the proposed project, implementation of policies that increase energy efficiency or reduce energy use would effectively reduce indirect GHG emissions associated with energy generation. The consistency of the proposed project with the applicable policies to the project is provided in Table 4.8-4.

Table 4.8-4: City of Vernon General Plan (GP) and Environmental Sustainability Action Plan (ESP) - Applicable GHG Reduction Policies

Policy	Project Consistency
GP Policy R-1.2: Support the use of energy-saving designs and equipment in all new development and reconstruction projects.	.
GP Policy R-2.1: Coordinate and cooperate with the South Coast Air Quality Management District and Southern California Association of Governments in efforts to implement the regional Air Quality Management Plan.	
GP Policy R-2.2: Encourage and facilitate the use of public transportation to reduce emissions associated with automobile use.	
ESP E1-a: Procure and deliver more renewable electricity to the grid.	GIC Vernon has proposed **PDM GHG-2** which would commit to either purchase 100 percent renewable electricity for use at the GEP or to participate in a program that achieves the same objectives for the GEP

Table 4.8-4: City of Vernon General Plan (GP) and Environmental Sustainability Action Plan (ESP) - Applicable GHG Reduction Policies	
Policy	**Project Consistency**
ESP E2-a: Encourage building electrification and energy efficiency.	As described above, the GEP has been designed to minimize electricity use with a PUE less than the industry average and to incorporate energy saving features.
ESP T1-a: Reduce truck emissions of criteria air pollutants.	The GEP will have much lower truck traffic than the prior use.

California SB 100

SB 100 advances the RPS renewable resources requirement to 50 percent by 2026 and 60 percent by 2030. It also requires renewable energy resources and zero-carbon resources to supply 100 percent of all retail sales of electricity by 2045. Because all electricity supplied to the project by VPU would be subject to the RPS requirements promulgated under SB 100, the project would not conflict with plans, policies, or regulations adopted pursuant to SB 100.

ARB Scoping Plan

The ARB Scoping Plan outlines the State's plan for achieving the emissions reductions necessary to meet the 2030 emission target set by SB 32. As described above, the project's stationary source emissions are under relevant thresholds set by SCAQMD, and the project would be consistent with SCAQMD's GHG thresholds for operational emissions which are intended to ensure projects do not interfere with the State's ability to achieve the 2030 GHG emissions target. Additionally, the project and its commitment in **PDM GHG-2** would resulting net zero emissions related to electricity consumption. The project, therefore, would be consistent with the ARB Scoping Plan.

Conclusion

The project is consistent with the 2022 Clean Air Plan, the City's General Plan and Environmental Sustainability Action Plan and measures, SB 375, SB 100, and the ARB Scoping Plan. The project, therefore, would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs. **(Less Than Significant Impact)**

4.8.4 Project Design Measures

The Project has proposed Project Design Measures **PDM GHG-1** and **PDM GHG-2**.

PD GHG-1: The project owner shall use renewable diesel for 100 percent of total energy use by the emergency backup generators, and only use ultra-low sulfur diesel (ULSD) as a secondary fuel in the event of supply challenges or disruption in obtaining renewable diesel. The City of Vernon may grant temporary relief from the 100 percent renewable diesel requirement if the project owner can demonstrate a good faith effort to comply with the requirement and that compliance is not practicable. The project owner shall provide an annual report of the status of procuring and using renewable diesel to the City of Pittsburg demonstrating compliance.

PD GHG-2: The project owner shall participate in a renewable energy program that accomplishes 100 percent carbon-free electricity for the GEP, or purchase renewable energy credits or similar instruments that accomplish the same goals of 100 percent carbon-free electricity.

During operation, the project owner shall provide documentation to the City of Vernon of initial enrollment in a renewable energy program and shall submit annual reporting to the City documenting either continued participation in a renewable energy program or documentation that alternative measures continue to provide 100 percent carbon-free electricity as verified by an independent third-party auditor specializing in greenhouse gas emissions.

4.8.5 Governmental Agencies

The City of Vernon is the only agency with regulatory authority covering the project's greenhouse gas emissions. The City of Vernon will administer its authority through its permit review and implementation process.

4.9 HAZARDS

The following discussion is based on a Phase I Environmental Site Assessment (February 2025) prepared by Langan CA Inc. and is included Appendix F of this Application.

4.9.1 CEQA Checklist

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Hazards				
Would the project:				
1) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
2) 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?	☐	☐	☒	☐
3) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
4) 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?	☐	☐	☒	☐
5) 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, result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
6) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
7) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

4.9.2 Environmental Setting

4.9.2.1 Regulatory Framework

Overview

The storage, use, generation, transport, and disposal of hazardous materials and waste are highly regulated under federal and state laws. Federal regulations and policies related to development include the Comprehensive Environmental Response, Compensation, and Liability Act, commonly known as Superfund, and the Resource Conservation and Recovery Act. In California, the EPA has granted most enforcement authority over federal hazardous materials regulations to the California Environmental Protection Agency (CalEPA). In turn, local agencies have been granted responsibility for implementation and enforcement of many hazardous materials regulations under the Certified Unified Program Agency (CUPA) program.

Worker health and safety and public safety are key issues when dealing with hazardous materials. Proper handling and disposal of hazardous material is vital if it is disturbed during project construction. Cal/OSHA enforces state worker health and safety regulations related to construction activities. Regulations include exposure limits, requirements for protective clothing, and training requirements to prevent exposure to hazardous materials. Cal/OSHA also enforces occupational health and safety regulations specific to lead and asbestos investigations and abatement.

Federal and State

Government Code Section 65962.5

Section 65962.5 of the Government Code requires CalEPA to develop and update a list of hazardous waste and substances sites, known as the Cortese List. The Cortese List is used by state and local agencies and developers to comply with CEQA requirements. The Cortese List includes hazardous substance release sites identified by the Department of Toxic Substances Control (DTSC), State Water Resources Control Board (SWRCB), and Contra Costa County.

California Accidental Release Prevention Program

The California Accidental Release Prevention (CalARP) Program aims to prevent accidental releases of regulated hazardous materials that represent a potential hazard beyond the boundaries of a property. Facilities that are required to participate in the CalARP Program use or store specified quantities of toxic and flammable substances (hazardous materials) that can have off-site consequences if accidentally released. The City of Vernon Department of Environmental Control is the Certified Uniform Program Agency (CUPA) with review authority over the CalARP risk management plans.

Asbestos-Containing Materials

Friable asbestos is any asbestos containing material (ACM) that, when dry, can easily be crumbled or pulverized to a powder by hand, allowing the asbestos particles to become airborne. Common examples of products that have been found to contain friable asbestos include acoustical ceilings, plaster, wallboard, and thermal insulation for water heaters and pipes. Common examples of non-friable ACMs are asphalt roofing shingles, vinyl floor tiles, and transite siding made with cement. The EPA phased out use of friable asbestos products between 1973 and 1978. National Emission Standards for Hazardous Air Pollutants guidelines require that potentially friable ACMs be removed prior to building demolition or remodeling that may disturb the ACMs.

CCR Title 8, Section 1532.1

The United States Consumer Product Safety Commission banned the use of lead-based paint in 1978. Removal of older structures with lead-based paint is subject to requirements outlined by Cal/OSHA Lead in Construction Standard, CCR Title 8, Section 1532.1 during demolition activities. Requirements include employee training, employee air monitoring, and dust control. If lead-based paint is peeling, flaking, or blistered, it is required to be removed prior to demolition.

Local

Other regional agencies responsible for programs regulating emissions to the air, surface water, and groundwater include the South Coast Air Quality Management District (SCAQMD), which has oversight over air emissions, and the Regional Water Quality Control Board (RWQCB) which regulates discharges and releases to surface waters and groundwater.

4.9.2.2 Existing Conditions

Historic Uses

According to the available topographic maps, in 1894 the subject property was developed with a structure of unknown use along the western property line. In 1920, a meat processing facility occupied the subject property along the intersection of South Soto Street and East Vernon Avenue. By 1949, Clougherty Packing Company (Clougherty) had acquired the previous facility. The remainder of the subject property was also occupied with meat packing plants and a dwelling with an attached auto repair facility. A fiberboard manufacturer operated on the northern portion of the site from 1928 to at least 1956. Between 1956 and 1964, Clougherty acquired the property. The previous structure

was demolished, and a warehouse was constructed on the portion of the subject property which housed a new structure named ,which was used by Clougherty in their meat processing operations.

From the 1960s, Clougherty, or its successors, expanded operations from the original footprint to the entirety of the subject property. In 1953, Clougherty introduced the Farmer John brand and by 2004, Hormel Food Corporation (Hormel) acquired Clougherty. In 2017, Smithfield acquired Hormel.

By 2023, GIC Vernon acquired the property and by June 2024, all buildings, flooring, and basements on the property were demolished.

Current Uses

By 2023, GIC Vernon acquired the property and by June 2024, all buildings, flooring, and basements on the property were demolished. The Project Site is now vacant and remains unused.

Adjoining Property History

The adjoining properties and surrounding area were developed with sporadic structures according to the 1890s topographic maps. The northern and western properties were developed with commercial and industrial uses by the 1920s. The northern adjoining property included various commercial and manufacturing uses from the 1940s until 2002 when the present commercial buildings were constructed.

The western adjoining property was identified General Petroleum Corporation of California, a gas station, and two packaging companies on the 1940s Sanborn map. According to aerial photographs, the property remained relatively unchanged until the late 1980s when grading began on the southern portion of the property. By the early 1990s, the property was in its general present configuration of warehouses.

By the 1930s, the eastern adjoining property was developed with industrial buildings that were identified in the 1949 Sanborn map as Coast Packaging which remains to present day.

The southern adjoining property consisted of a residential dwelling and vacant land according to the 1920 Sanborn map and 1923 aerial photograph. The property was developed with a gas station (approximately 1948 to 1952) and a paving company (approximately 1933 to 1967). Commercial buildings occupied the southeast corner of the subject property until they were demolished in 2018. In 2024, the property was demolished and has remained a vacant dirt lot.

On the surrounding properties, industrial development was noted in the 1920s. An oil tank farm is noted to the south of the subject property from the early 1920s to the late 1930s.

Additionally, a tank farm is visible to the northeast of the subject property from the early 1920s and remains to present-day.

Potential Sources of Contamination

On-Site

Heavy Metals

The Former Exide Facility (Exide) historically operated as a lead-acid battery recycling and lead smelting facility from 1922 to 2015 and was located 1.27-miles east of the subject property. In addition, there were historical industrial activities in the vicinity of the subject property with heavy metal manufacturing and/or usage.

During the demolition activities on the subject property in December 2023, limited areas of red soil were encountered in the northern portion of the overall property and outside the GEP site boundaries. These identified areas are located beyond the portion of the property studied herein.. Samples were collected from the red soil between January and February 2024 and analyzed for heavy metals, TPH, and VOCs. No TPH or VOCs were detected at levels exceeding applicable screening levels. Nine metals were detected above applicable screening levels. Antimony was detected between 284 milligrams per kilogram (mg/kg) and 1,100 mg/kg; arsenic was detected between 21.9 mg/kg and 84 mg/kg; barium was detected between 3,000 mg/kg and 3,800 mg/kg; lead was detected between 2,400 mg/kg and 54,000 mg/kg; nickel was detected between 86 mg/kg and 190 mg/kg; and mercury was detected between 44 mg/kg and 65.3 mg/kg.

GIC Vernon is currently working with the City of Vernon to collect additional data relative to the delineation of the red soil and to evaluate potential remedial options. The elevated levels of lead and other heavy metals measured in the soil in limited areas at the subject property are considered a Recognized Environmental Condition (REC).

Petroleum Byproducts

Database listings indicate the presence of 24 USTs on the subject property. Five were reportedly removed and one was reportedly abandoned in place. The statuses of the remaining USTs are unknown, and the City of Vernon did not possess documentation for the remaining tanks.

USTs or UST systems (piping/dispensers) were not encountered during demolition activities. Due to the removal of all buildings, flooring, and basements potential exposing UST systems, it is unlikely that the remaining USTs are present at the subject property and were likely removed at an earlier time.

Off-Site

There has been approximately 100 years of industrial activity on the adjacent properties and in the surrounding area of the subject property. Operations included a battery

smelting and recycling facility, oil and gas production, meat packing, and auto repair facilities.

The north adjacent property and east adjoining property are the locations of historical Leaking Underground Storage Tank (LUST) cases. The west adjacent properties historically included gas stations, auto repair facilities, and the use of USTs for industrial purposes. An oil tank farm was present approximately 350-feet south of the subject property and visible on aerial photographs from 1923 to 1938. In 1948, remnant tank scars are visible and by 1952, the area was constructed with warehouses. According to topographic maps and aerial photographs, an oil and gas terminal, located northwest of the subject property, has been in operation since the early 1920s.

Due to the current and historical operations in the vicinity of the subject property, the potential offsite sources of hazardous substances are considered a REC.

Wildland Fire Hazards

The project site is located in an urban area and is not within a Very-High Fire Hazard Severity Zone for wildland fires.

4.9.3 Environmental Impact Discussion

On December 17, 2015, the California Supreme Court issued an opinion in "CBIA vs. BAAQMD" holding that CEQA is primarily concerned with the impacts of a project on the environment and generally does not require agencies to analyze the impact of existing conditions on a project's future users or residents, with certain important exceptions. One of those exceptions is that environmental documents must consider potential noise and safety impacts on projects due to proximity to an airport, pursuant to Public Resources Code 21096.

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

Construction

During the construction phase of the project, the only hazardous materials used would be paints, cleaners, solvents, gasoline, motor oil, welding gases, and lubricants. When not in use, any hazardous material would be stored in designated construction staging areas in compliance with local, state, and federal requirements. Any impacts resulting from spills or other accidental releases of these materials would be limited to the site due to the small quantities involved and their infrequent use, hence reduced chances of release. Temporary containment berms would also be used to help contain any spills during the construction of the project.

Operation Transport

During operation, all 40 diesel generator fuel tanks would have to be filled. The transportation of the diesel fuel to the site would involve tanker truck trips. Diesel fuel has a long history of being routinely transported and used as a common motor fuel. It is appropriate to rely upon the extensive regulatory program that applies to the shipment of hazardous materials on California highways and roads to ensure safe handling in general transportation (see Federal Hazardous Materials Transportation Law 49 USC § 5101 et seq., DOT regulations 49 C.F.R. subpart H, §§ 172–700, and California Department of Motor Vehicles (DMV) regulations on hazardous cargo). Thus, the transportation of diesel fuel would pose a less than significant risk to the surrounding public.

Therefore, the routine transport, use or disposal of hazardous materials during construction and operation would have a less than significant impact to the public or the environment. **(Less Than Significant Impact)**

Operation and Use

During the operational phase of the project, diesel fuel would be stored in the generator tanks on-site. . The diesel fuel would be used by the generators during electrical outage emergencies, generator testing, and generator maintenance. Each generator would run once a month for up to 15 minutes. Each generator would also be required to run for a total of four hours per year, under maximum load, for yearly testing purposes.

VBGF would use industry standard practice for fuel quality and maintenance of stored renewable diesel fuel and CARB diesel fuel. Standard practice includes that each engine would have a dual fuel filter system and that the fuel would be replenished after testing. The fuel water separators (a three bank system) would be the primary fuel filter. The secondary fuel filter, installed just before the fuel would be injected into the engine, would filter the fuel down to particles less than five microns in size. Routine replacement of the engine dual fuel filters would reduce any effects of fuel degradation on engine components and operation. Commercial diesel fuels also contain biocides that prevent microbial growth and additives that help to stabilize the fuel for several months. Additionally, the diesel fuel would be replenished with fresh fuel when needed to maintain 24 hours of emergency electrical capacity for the GEP.

The proposed diesel generators would use selective catalytic reduction (SCR) to meet Tier 4 requirements. The SCR works by injecting a liquid-reductant through a special catalyst into the exhaust stream of the diesel engine to reduce the amount of oxides of nitrogen in the final exhaust stream. The reductant, commonly called diesel exhaust fluid (DEF), is a non-hazardous solution of 67.5 percent water and 32.5 percent automotive grade urea, as is used for SCR on highway-going diesel transport trucks. DEF consumption would vary depending upon the environment, operation, and duty cycle of equipment. On average, DEF consumption would be 3 percent to 5 percent of diesel fuel

consumption. DEF will be stored in tanks located within each generator enclosure and fluid levels will be monitored and refilled as necessary.

With the above listed safety features and precautions, the risk to the off-site public or environment through the routine transport, use or disposal of hazardous materials would have a less than significant impact. **(Less than Significant Impact)**

4.9.3.2 Would 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?

Construction

As described under the discussion for impact criterion a., project construction would require the limited use of hazardous materials, such as fuels, lubricants, and solvents. The storage and use of hazardous materials during construction could result in the accidental release of small quantities of hazardous materials typically associated with minor spills or leaks. However, hazardous materials would be stored, handled, and used in accordance with applicable regulations. Personnel would be required to follow instructions on health and safety precautions and procedures to follow in the event of a release of hazardous materials. All equipment and materials storage would be routinely inspected for leaks. Records would be maintained for documenting compliance with the storage and handling of hazardous materials.

The limited subsurface investigation conducted during the Phase I Site Investigation found low levels of fuel-related VOCs, arsenic and metals, but at levels that are acceptable for the commercial development. Construction workers could be exposed to contaminated soil and or groundwater during excavation, grading, and construction activities.

The Project Owner proposes **PDM HAZ-1** to ensure that contaminated soil and or groundwater exposed during construction would result in less than significant impacts to construction workers and the public. With implementation of **PDM HAZ-1** the proposed project would result in a less than significant soil and groundwater contamination impacts. **(Less than Significant Impact)**

Operations

The project would not create a significant hazard to the public or environment due to an accidental release of a hazardous material. Although a substantial quantity of diesel fuel would be stored on-site, its storage would be split among many separate tanks. Each generator enclosure pair will have a dedicated 12,000-gallon base mounted tank that will feed both generators in the paired configuration. Each of the smaller house generators will have an integrated diesel fuel tank into its enclosure with a capacity of approximately 3,000 gallons.

Each integrated fuel tank would be of a double-walled high integrity design. The interstitial space between the inner and outer walls of each tank would be continuously monitored electronically for the presence of leaks through the inner wall. The monitoring system would be electronically linked to an alarm system in the security office that would alert personnel if a leak were detected in any of the inner tanks.

Deliveries of diesel fuel by tanker truck during the project's operation would be scheduled on an as needed basis. Diesel tanker trucks would use wheel chocks to prevent the truck from moving before complete disconnection of the transfer lines. An emergency pump shut-off would be available in case a pump hose breaks during the fueling. In addition, a temporary spill catch basin would be located at the fill port of each belly tank during refilling. With the incorporation the design and handling features described above the project would not result in significant soil or groundwater impacts during operations. **(Less Than Significant Impact)**

4.9.3.3 Would 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?

There are no existing or proposed schools within ¼ mile of the Project. In additional the Project would not emit hazardous emissions in quantities or concentrations that would cause health impacts offsite (See Section 4.3, Air Quality), nor would it handle hazardous or acutely hazardous materials, substances or waste. In addition, the project would comply with all relevant laws and regulations related to hazardous materials, as discussed in Sections 4.9.3.1 and 4.9.3.2. While the project site may contain contaminated soil, unknown fill, groundwater and soil vapor from previous on- and off-site uses and spills, implementation of **PDM HAZ-1**, which is incorporated into the project, would reduce impacts to less than significant. **(Less than Significant Impact)**

4.9.3.4 Would 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?

The site is listed on hazardous materials sites compiled pursuant to Government Code Section 65962.5 as described in Appendix F. A Phase II ESA was conducted in May 2023. Activities included the installation and sampling of 13 soil boring locations and 20 temporary soil vapor points. The results are shown in Appendix F, Figures 2.1 and 2.2. A Soil Management Plan (SMP) has been prepared and the potentially contaminated areas that may be disturbed during construction will be managed during construction of the Project. To ensure the areas are managed properly, GIC Vernon had incorporated Project Design Measure **PDM HAZ-1**. With its implementation, the construction of the project would not create a significant impact to the public or the environment. **(Less Than Significant Impact)**

4.9.3.5 Would the project be 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, result in a safety hazard or excessive noise for people residing or working in the project area?

Airport Plans

The closest airport is over 9 miles to the west of the Project Site. The Project Site is not within an airport land use plan. **(No Impact)**

4.9.3.6 Would the project impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?

The project would be constructed in accordance with current building and fire codes to ensure structural stability and safety in the event of a seismic or seismic-related hazard. In addition, the Los Angeles County Fire Department would review the site development plans to ensure fire protection design features are incorporated and adequate emergency access is provided. For these reasons, the proposed project would not impair implementation of or physically interfere with the City or Fire Department Emergency Operations Plan. **(Less than Significant Impact)**

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

The project site is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones; therefore, the project would not result in wildfire impacts. **(No Impact)**

4.9.4 Project Design Measures

No mitigation measures are necessary as the project has included the following Project Design Measure into the design of the Project

PDM HAZ-1. A Site Management Plan (SMP) shall be prepared for the Project Site if required and any contaminated soils found in concentrations above established thresholds shall be removed and disposed of according to California Hazardous Waste Regulations or the contaminated portions of the site shall be capped beneath the planned development under the regulatory oversight of the City of Vernon Department of Health and Environmental Control (DEHC) or the California Department of Toxic Substances Control (DTSC). The contaminated soil removed from the site shall be hauled off-site and disposed of at a licensed hazardous materials disposal site.

If there are no contaminants identified in areas of the Project Site to be disturbed that exceed applicable screening levels for the protection of future residential and commercial workers, published by the Regional Water Quality Control Board, Department of Toxic Substances Control, and/or Environmental Protection Agency, the Project applicant shall not be required to prepare or submit a Site Management Plan.

In addition, all contractors and subcontractors shall develop a Health and Safety Plan (HSP) specific to their scope of work and based upon the known environmental conditions. The HSP shall be reviewed and approved by GIC Vernon's Environmental Consultant and Site Safety and Health Officer. Once established, the contractors and subcontractors will keep copies of the approved HSPs onsite for reference.

Components of the SMP (if required) shall include, but shall not be limited to:

- A detailed discussion of the site background;
- Notification procedures if previously undiscovered significantly impacted soil or free fuel product is encountered during construction;
- Onsite soil reuse guidelines based on the California Regional Water Quality Control Board (RWQCB) re-use policy;
- Sampling and laboratory analyses of excess soil requiring disposal at an appropriate off- site waste disposal facility;
- Soil stockpiling protocols; and
- Protocols to manage groundwater that may be encountered during trenching and/or subsurface excavation activities.

Components of the HSP shall include, but shall not be limited to, the following elements, as applicable:

- Provisions for personal protection and monitoring exposure to construction workers;
- Procedures to be undertaken in the event that contamination is identified above action levels or previously unknown contamination is discovered;
- Procedures for the safe storage, stockpiling, and disposal of contaminated soils;
- Provisions for the onsite management and/or treatment of contaminated groundwater during extraction or dewatering activities; and
- Emergency procedures and responsible personnel.

The SMP shall be submitted to DEHC for review and/or approval prior to implementation of any soil remediation activities (if required). Copies of the approved SMP shall be kept on site.

4.9.5 Governmental Agencies

The City of Vernon DEHC is the agency responsible for regulating potential hazards discussed above under its Comprehensive Unified Agency Program (CUPA) status.

4.10 HYDROLOGY AND WATER QUALITY

4.10.1 CEQA Checklist

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Hydrology and Water Quality				
Would the project:				
1) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
2) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
3) 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 which would:	☐	☐	☒	☐
- result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
- substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	☐	☐	☒	☐
- create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
- impede or redirect flood flows?	☐	☐	☒	☐
4) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
5) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

4.10.2 Environmental Setting

4.10.2.1 Regulatory Framework

Water Quality

The federal Clean Water Act and California's Porter-Cologne Water Quality Control Act are the primary laws related to water quality in California. Regulations set forth by the U.S. Environmental Protection Agency (EPA) and the State Water Resources Control Board (SWRCB) have been developed to fulfill the requirements of this legislation. EPA regulations include the National Pollutant Discharge Elimination System (NPDES) permit program, which controls sources that discharge pollutants into the waters of the United States (e.g., streams, lakes, bays, etc.). These regulations are implemented at the regional level by the Regional Water Quality Control Boards (RWQCBs). These regulations are implemented at the regional level by water quality control boards, which for the City of Vernon area is the Los Angeles Regional Water Quality Control Board (RWQCB).

Federal

National Flood Insurance Program

The Federal Emergency Management Agency (FEMA) established the National Flood Insurance Program (NFIP) in order to reduce impacts of flooding on private and public properties. The program provides subsidized flood insurance to communities that comply with FEMA regulations protecting development in floodplains. As part of the program, FEMA publishes Flood Insurance Rate Maps (FIRM) that identify Special Flood Hazard Areas (SFHA). An SFHA is an area that would be inundated by the one-percent annual chance flood, which is also referred to as the base flood or 100-year flood.

State

Statewide Construction General Permit

The SWRCB has implemented an NPDES General Construction Permit for the State of California (Construction General Permit). For projects disturbing one acre or more of soil, a Notice of Intent (NOI) and Storm Water Pollution Prevention Plan (SWPPP) must be prepared by a qualified professional prior to commencement of construction. The Construction General Permit includes requirements for training, inspections, record keeping, and for projects of certain risk levels, monitoring. The general purpose of the requirements is to minimize the discharge of pollutants and to protect beneficial uses and receiving waters from the adverse effects of construction-related storm water discharges.

Regional

Southeast Water Coalition Joint Powers (SEWC)

The City of Vernon is a member of the Southeast Water Coalition Joint Powers (SEWC). SEWC mission is to prevent the contamination of the Central Groundwater Basin from migrating contaminated groundwater and to encourage good governance of water policies to ensure the availability of reliable, quality, and affordable water.[21] The coalition was created in July 1991 and is comprised of eleven cities.

These agencies formed a joint power authority to improve and protect the quantity and quality of the regional water supply. SEWC's water purveyors service a population of 670,000 in a service area of 93+ square miles. The SEWC Board of Directors consists of one representative (normally a Councilmember) from each member city. The Administrative Entity acts as a steering committee consisting of one Public Works type staff member from each member city plus three non-voting (advisory) members from the Central Basin Watermaster, Golden State Water Company, and California Water Service (two private utilities serving several member cities).

Regional Water Quality Control Plan

The Los Angeles RWQCB has prepared a Water Quality Control Plan for the Los Angeles Region. This basin plan encompasses all coastal drainages flowing to the Pacific Ocean between Rincon Point (on the coast of western Ventura County) and the eastern Los Angeles County line, as well as the drainages of five coastal islands (Anacapa, San Nicolas, Santa Barbara, Santa Catalina, and San Clemente). In addition, the Los Angeles region includes all coastal waters within three miles of the continental and island coastlines. As the eastern boundary, formed by the Los Angeles County line, departs somewhat from the hydrologic divide, the Los Angeles and Santa Ana regions share jurisdiction over watersheds along their common border.

Municipal Regional Stormwater Permit

On November 8, 2012, the Los Angeles RWQCB adopted Order No. R4-2012-0175 (Municipal NPDES Permit). The Municipal NPDES Permit requires the Permittees to implement Low Impact Development under the Planning and Land Development Program provision.

[21]

Local

City of Vernon Municipal Code. Chapter 21, Article V

In November 2013, the City of Vernon amended Chapter 21, Article V Storm Sewer System of the Municipal Code to include stormwater pollution controls for specific new development and redevelopment projects termed Planning Priority Projects (Ordinance No. 1216). The purpose of the provisions in Chapter 21 is to enhance and protect the water quality of the receiving waters of the United States in a manner that is consistent with the Clean Water Act and the Municipal NPDES Permit. The intent of Chapter 21 is to protect and control the City's sanitary sewer system; and to reduce Stormwater and urban runoff pollutants by improving the quality of Stormwater that are discharged into the regional Stormwater system within Los Angeles County known as the municipal separate storm sewer system (MS4).

The project disturbs approximately 10.4 acres, which falls in the category of "planning priority projects" as "All development projects equal to 1 acre or greater of disturbed area that adds more than 10,000 square feet of impervious surface area". The project is subject to comply with the following measures of the City of Vernon Municipal Code Chapter 21:

- Retain stormwater runoff onsite for the Stormwater Quality Design Volume (SWQDv) defined as the runoff from:
- The 85th percentile 24-hour runoff event as determined from the Los Angeles County 85th percentile precipitation isohyetal map; or
- The volume of runoff produced from a 0.75 inch, 24-hour rain event, whichever is greater.
- If partial or complete onsite retention is technically infeasible, the project Site may biofiltrate 1.5 times the portion of the remaining SWQDv that is not reliably retained onsite. Biofiltration BMPs must adhere to the design specifications provided in the MS4 Permit.
- The remaining SWQDv that cannot be retained or biofiltered onsite must be treated onsite to reduce pollutant loading. BMPs must be selected and designed to meet pollutant-specific benchmarks as required per the MS4 Permit.

4.10.2.2 Existing Conditions

Flooding

The main sources of potential flooding in the City of Vernon are the Los Angeles River, and unusual rainfall amounts resulting in a high volume of runoff. Although the Los Angeles River is adjacent to the Project Site and flows through Vernon for a distance longer than three miles and would frequently overflow its banks under historic natural

conditions, the river was contained within a concrete-lined flood control channel early in the twentieth century, substantially reducing the potential for overflowing of the river banks or overtopping of the dams that could cause flooding of adjacent areas.[22]

Flooding in the event of a major 100-year storm, a major storm event that has a one percent chance of occurring any year in a 100-year period, is not a concern in the City of Vernon. The closest FEMA zone with 100 year base flood level is approximately 1.6 miles from the project site which is not representative. FEMA maps do not identify any 100-year flood hazard areas within the City.[23] The Project is located in Zone X area of minimal flood hazard in the flood insurance rate map, per FEMA panel No. 06037C1639F dated 9/26/2008 and FEMA panel No. 06037C1638G dated 12/21/2018.

Inundation Hazards

Based on information and maps available from the California Geological Survey, the site is not located within a Tsunami Inundation Area. Based on review of adjacent water bodies, the site is not subject to inundation from seiche. Based on review of the City of Vernon General Plan, the site is located within inundation areas from the Sepulveda and Hansen Dams. Inundation scenarios from either of these dams are not available from the Dam Breach Inundation Map Web Publisher hosted by the California Division of Safety of Dams (DSOD). However according to the City of Vernon General Plan, Safety Element, the inundation at the site in the event of a dam failure from dams located more than 20 miles northwest of the City would probably peak at a depth of 2 feet in the City and only after more than eight hours after dam breach giving ample time for emergency services to respond.[24]

Groundwater

The Project is in the Central Subbasin of the Coastal Plain of the Los Angeles Groundwater Basin. This subbasin is commonly referred to as the “Central Basin.” This area is bounded on the north by a surface divide called the La Brea high, and on the northeast and east by the Elysian, Repetto, Merced, and Puente Hills. The southeast boundary between Central Basin and the nearby Orange County Groundwater Basin roughly follows Coyote Creek, a regional drainage province boundary.

[22] City of Vernon General Plan, 2015, Safety Element, page 6

[23] FEMA National Flood Hazard Layer (NFHL) Viewer https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd

[24] City of Vernon General Plan, 2015, Safety Element, page 7

Groundwater was not encountered in the current or prior borings to a maximum drilled depth of approximately 66 feet bgs. Based on a review of the *Seismic Hazard Evaluation of the Los Angeles and South Gate 7.5-Minute Quadrangles, Los Angeles County, California, Seismic Hazard Zone Reports 029 & 34*, the historical high groundwater level (HHGWL) at the site is greater than approximately 60 feet bgs as shown on Figure 4 in Appendix E.

4.10.3 Environmental Impact Discussion

For purposes of analyzing potential Hydrology and Water Quality-related impacts, it is not necessary or prudent to separate the potential impacts of the VBGF and the GEP. Therefore, the following analysis uses the term "Project" which encompasses both construction and operation of the VBGF, the GEP and all related ancillary facilities.

4.10.3.1 Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Construction

In addition, construction activities could generate dust, sediment, litter, oil, and other pollutants that could temporarily contaminate water runoff from the site. The GEP would include Project Design Measure **PDM HYD-1** to avoid or reduce construction-related water quality impacts to less than significant level. **(Less Than Significant Impact)**

Operation

Because the Project will disturb approximately 11.4 acres it is subject to the City's Code Provisions described above to satisfy the regional MRP. To comply with those standards, the GEP proposes to use underground stormwater biofiltration system called MWS as Best Management Practice (BMP) to treat all onsite stormwater runoff. The MWS is a biofiltration system that utilizes horizontal flow within a small footprint to reach high treatment capacity and design versatility that helps with the project's restraints on infiltration due to soil characteristics. The MWS is comprised of a prefabricated concrete unit that contains pretreatment chamber, biofiltration chamber, overflow weir and overflow chamber. Roof runoff will be routed through scuppers and connect to underground storm drain system. Surface runoff of hardscape such as concrete sidewalk and asphalt driveway and parking stalls will sheet flow and be collected in various catch basins at low spots and then routed to the underground storm drain system. Multiple MWSs are located at the downstream side of the storm drain system before discharging offsite to treat all onsite runoff. The MWS is sized to treat 1.5 times the SWQDv. During larger storm events, overflow will discharge to the City owned 15~18-in storm drain along East Vernon Ave at four outlets. Please See Figure C05-01 Utility Plan and C06-01 LID plan contained in Appendix A for the detailed design.

The incorporation of these measures will ensure that the operation of the Project will not result in significant water quality impacts. **(Less Than Significant Impact)**

4.10.3.2 Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

The project does not propose to pump groundwater or install groundwater extraction wells. In addition, the project site is not within an area used for groundwater recharge. For these reasons, the project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge. **(Less Than Significant Impact)**

4.10.3.3 Would 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 which would result in substantial erosion or siltation on- or off-site; substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or impede or redirect flood flows?

The project would not alter the course of a stream, river, or other waterway. Although the Project will result in an increase of impervious surfaces over the current conditions, the compliance with the City Code as described in Section 4.10.3.1 above will appropriately treat stormwater flows to ensure that the post-project flows will not exceed pre-project flows. **(Less than Significant Impact)**

4.10.3.4 Would the project risk release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones?

Flooding, Tsunami and Seiche

The project site is located within Flood Zone X. Hazardous materials on-site would be stored and contained in accordance with regulations to prevent accidental release (refer to Section 4.9 for additional details). For this reason, the project would not risk release of pollutants due to project flooding. Additionally, as discussed in Section 4.7.1.2, the project area is not subject to inundation from a seiche, tsunami, or mudflow. For the reasons described above, the project would have a less than significant impact. **(Less than Significant Impact)**

4.10.3.5 Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

As discussed above, the Project would comply with applicable water quality control regulations and would not substantially decrease groundwater supplies or interfere with groundwater recharge. **(Less than Significant Impact)**

4.10.4 Project Design Measures

No mitigation measures are necessary as the project applicant has incorporated the following Project Design Measure into the Project.

PDM HYD-1: The project will incorporate the following into the design and these measures should be treated as mitigation incorporated into the project. The following will reduce construction-related water quality impacts:

- Burlap bags filled with drain rock shall be installed around storm drains to route sediment and other debris away from the drains.
- Earthmoving or other dust-producing activities shall be suspended during periods of high winds.
- All exposed or disturbed soil surfaces shall be watered daily to control dust as necessary.
- Stockpiles of soil or other materials that can be blown by the wind shall be watered or covered.
- All trucks hauling soil, sand, and other loose materials shall be required to cover all trucks or maintain at least two feet of freeboard.
- All paved access roads, parking areas, and staging areas adjacent to the construction sites shall be swept daily (with water sweepers).
- Vegetation in disturbed areas shall be replanted as quickly as possible.
- All unpaved entrances to the site shall be filled with rock to knock mud from truck tires prior to entering City streets. A tire wash system may also be employed at the request of the City.

4.10.5 Government Agencies

The City of Vernon is the only agency with regulatory authority over the hydrology and water quality related effects of the project. The City will ensure compliance with its requirements during its permit review and implementation process.

4.11 LAND USE AND PLANNING

4.11.1 CEQA Checklist

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Land Use and Planning				
Would the project:				
1) Physically divide an established community?	☐	☐	☐	☒
2) 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?	☐	☐	☐	☒

4.11.2 Environmental Setting

4.11.2.1 Regulatory Framework

City of Vernon General Plan

State Law (Government Code Section 65300) requires that each city and county, including charter cities and counties, adopt a comprehensive, integrated, long-term *General Plan* to direct future growth and development and accommodate potential changes or increases to population and employment. The General Plan is a fundamental policy document that defines how a city should use and manage its resources into the future. State law requires seven General Plan Elements: land use, circulation, housing, conservation, open space, noise, and safety. Additionally, consideration of environmental justice is also required either as a standalone element or incorporated into an existing element.

The City's current *General Plan* was adopted in December 2007 and updated in 2015. The *General Plan* serves as a blueprint for the City's planning efforts and vision for the future. The *General Plan* has six citywide elements: Land Use, Circulation and Infrastructure, Housing, Safety, Resources, and Noise. These elements contain goals, policies, and actions that apply to all incorporated areas in the City of Vernon.

The Land Use Element and the Land Use Policy Map establishes the broad, general policies for how properties are used in Vernon, including location, distribution, type, and intensity of development, with the overarching goal of maintaining Vernon as an industrial city. The Land Use Policy Map graphically illustrates the planned pattern of land use in

Vernon. The Land Use Element describes a limited range of land use categories, establishes standards of use and intensity, and sets forth policies relating to use of properties.

Applicable goals and policies include:

Land Use Goal LU-2. Phase out aging industrial building and sites through modernization and replacement.

> **Policy LU-2.3**: Continue to enforce all applicable building and health and safety codes.
>
> **Policy LU-2.4**: Provide incentives to property owners to revitalize industrial structures or recycle/demolish obsolete or vacant structures.
>
> **Policy LU-2.5**: Assist in the reuse of properties from one industrial use to another.

Land Use Goal LU-3. Maintain Vernon as a highly desirable location for industry and continue to attract the types of industry the City is well positioned to serve.

> **Policy LU-3.2**: Foster a City government and governmental structure that is responsive to the needs of industry located in a metropolitan area.
>
> **Policy LU-3.5**: Use development proposals as opportunities to encourage modernization and broaden property improvements goals.

Zoning Ordinance

Title 17 of the Charter and City Code, known as the Comprehensive Zoning Ordinance of the City of Vernon (Zoning Ordinance), implements the land use policies of the *General Plan*. The Zoning Ordinance is detailed with respect to specific development standards and land use requirements. The City's Zoning Ordinance includes specific standards and development regulations regarding permitted uses, building heights, parking requirements, setbacks, and other requirements. Zoning is used to implement long-term land use policy. In accordance with State requirements, the City's zoning patterns are consistent with Vernon's Land Use Policy Map.

4.11.2.2 Existing Conditions

The Project Site formerly included of a portion of the Smithfield Packaged Meats Corporation warehouses and packaging facilities. All of these facilities have been demolished and removed from the site leaving the site vacant.

The proposed GEP site will consist of one parcel created by a proposed Lot Line Adjustment. The new parcel will total approximately 11.55 acres in size and is located north and east of the intersection of Vernon Avenue and Soto Street in the City of Vernon,

California (City). The current APNs are 6303-005-035 and 6303-005-036, which are subject to change after the recordation of the Lot Line Adjustment .

The Project Site has a General Plan Designation of Industrial with a Overlay District of Slaughtering. The property is currently zoned Industrial with Slaughtering and Commercial 1 overlays. According to the local Zoning Code, the uses allowed in these Zoning Areas are Industrial in nature, of which Data Center is allowed and a conditional use permit from the City of Vernon is not required.

4.11.3 Environmental Impact Discussion

For purposes of analyzing potential land use impacts, it is not necessary or prudent to separate the potential impacts of the VBGF and the GEP. Therefore, the following analysis uses the term “Project” which encompasses construction and operation of the VBGF, the GEP and all related ancillary facilities.

4.11.3.1 Would the project physically divide an established community?

The Project Site was formerly a Slaughtering House and is surround by other Industrial Uses. The development of a data center will not divide an established community. **(No Impact)**

4.11.3.2 Would 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?

Consistency with Applicable Local Plans, Policies, and Regulations

Both the City of Vernon General Plan and Zoning Designations explicitly allow the Project Site to be used for data center uses. Further, the Project is consistent with the Land Use Goals and Policies outlined in Section 4.11.2.1 above.

Therefore, the Project would not conflict with any land use plans, policies, or regulations; and would have a less than significant impact. **(Less Than Significant Impact)**

4.11.4 Project Design Measures

No Project Design Measures are required.

4.11.5 Governmental Agencies

The City of Vernon is the land use and planning authority and will implement its requirements as part of its permit process.

4.12 MINERAL RESOURCES

4.12.1 CEQA Checklist

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Mineral Resources				
Would the project:				
1) 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?	☐	☐	☐	☒
2) 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?	☐	☐	☐	☒

4.12.2 Environmental Setting

4.12.2.1 Regulatory Framework

Surface Mining and Reclamation Act

The Surface Mining and Reclamation Act (SMARA) was enacted by the California Legislature in 1975 to address the need for a continuing supply of mineral resources, and to prevent or minimize the negative impacts of surface mining to public health, property and the environment. As mandated under SMARA, the State Geologist has designated mineral land classifications in order to help identify and protect mineral resources in areas within the state subject to urban expansion or other irreversible land uses which would preclude mineral extraction. SMARA also allowed the State Mining and Geology Board, after receiving classification information from the State Geologist, to designate lands containing mineral deposits of regional or statewide significance.

4.12.2.2 Existing Conditions

The City of Vernon does not identify any significant mineral deposits or active mining operations in the City. The Project Site is not designated as having the presence of mineral deposits. The area is not known to support significant mineral resources of any type. The State Office of Mine Reclamation's list of mines (AB 3098 list) regulated under the Surface Mining and Reclamation Act does not include any mines within the City.

4.12.3 Environmental Impact Discussion

For purposes of analyzing potential mineral resource impacts, it is not necessary or prudent to separate the potential impacts of the VBGF and the GEP. Therefore, the

following analysis uses the term “Project” which encompasses construction and operation of the VBGF, the GEP and all related ancillary facilities.

4.12.3.1 Would 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?

The project site does not contain any known or designated mineral resources. The Project, therefore, would not result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state. **(No Impact)**

4.12.3.2 Would 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?

The project site is not delineated in the General Plan or other land use plan as a locally important mineral resource recovery site. For this reason, the Project would not result in the loss of availability of locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. **(No Impact)**

4.12.4 Project Design Measures

No Project Design Measures are necessary.

4.12.5 Governmental Agencies

No governmental agencies with regulatory authority over mineral resources are affected by the project.

4.13 NOISE AND VIBRATION

The following discussion is based, in part, on the Environmental Noise and Vibration Assessment Technical Background Report, prepared by Salter dated February 10, 2025, which is included as Appendix G to this application.

4.13.1 CEQA Checklist

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Noise and Vibration				
Would the project:				
1) 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?	☐	☐	☒	☐
2) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
3) 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, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

4.13.2 Environmental Setting

4.13.2.1 Regulatory Framework

Local

City of Vernon General Plan

Vernon General Plan

The Noise Element of the City of Vernon General Plan sets forth noise and land use compatibility standards for proposed land uses (Noise Element Figure N-3 included below). In summary, the City establishes the following outdoor noise levels as the upper end of the range considered “Clearly Compatible” for each land-use near the Project.

- Residential: CNEL 60 dB1
- Office/Professional: CNEL 65 dB

- Commercial Retail: CNEL 70 dB
- Manufacturing/Utilities: CNEL 70 dB

Applicable noise goals and policies contained in the Noise Element are as follows:

GOAL N-2: Incorporate noise and vibration considerations into land use planning decisions.

POLICY N-2.1: Consider the noise levels likely to be produced by any new businesses or substantially expanded business activities locating near existing noise-sensitive uses such as schools, community facilities, and residences, as well as adjacent to established businesses involving vibration-sensitive activities.

POLICY N-2.2: Encourage acoustical design in all new construction.

GOAL N-3: Develop measures to control non-transportation noise and similar impacts.

POLICY N-3.1: Continue to enforce the noise and vibration performance standards in the City Code to mitigate conflicts among neighboring uses.

Applicable action items contained in the General Plan Implementation Plan are as follows:

Action N-1: Noise Regulations. Continue to enforce City noise regulations contained in the Zoning Ordinance to protect residents and school children from excessive noise levels associated with stationary noise sources. Periodically evaluate regulations for adequacy and revise, as needed, to address community needs and changes in legislation and technology.

Action N-2: Siting of New Businesses near Noise-sensitive Land Uses. Review development proposals at properties to determine whether the proposed use has the potential to exceed City one-hour noise standards. As appropriate, require acoustical analyses for all proposed activities that have the potential to exceed the standards, and require mitigation measures if noise analyses show an increase in noise levels beyond the City standards.

City of Vernon Municipal Code - Noise

The City's Zoning Code states the following for sites within the General Industry Zone:

17.22.070 Part B.2

Noise. Upon a change of use or the occurrence of an event described in Table 7.64.030, Right to Continue Nonconforming Uses and Buildings, that requires compliance with the development standards, all of the businesses located on the lot shall be operated in compliance with the following noise standards:

a. The following noise standards, unless otherwise specifically indicated, shall apply to all lots within the designated noise zones, measured cumulatively with existing noise from all businesses on the lot:

Table 17.22.070 Noise Standards		
Noise Zone	Time Interval	Allowable Exterior Noise
Lots located within 1/10 of a mile of any residence or school located in Vernon or abutting communities	10:00 p.m. to 7:00 a.m. 7:00 a.m. to 10:00 p.m.	60 dBA 65 dBA
All other lots	Any time	75 dBA

b. No person, in any location within the City, shall create any noise, or allow the creation of noise, on any lot owned, leased, occupied or otherwise controlled by such person which causes the cumulative noise level when measured at any point along the lot line of the lot on which the source of the noise is located to exceed:

i. The applicable noise standard for a cumulative period of more than 30 minutes in any hour; or

ii. The applicable noise standard plus five dBA for a cumulative period of more than 15 minutes in any one hour; or

iii. The applicable noise standard plus 10 dBA for a cumulative period of more than five minutes in any hour; or

iv. The applicable noise standard plus 15 dBA for a cumulative period of more than one minute in any hour.

c. *In the event the ambient noise level exceeds any of the noise limit categories set forth in subsection (B)(2)(b) of this section, the cumulative period applicable to such category shall be increased to reflect the ambient noise level, plus five dBA.*

d. If a lot is located on a boundary between two different noise zones, the noise level standard applicable to the quieter noise zone shall apply.

e. If the noise source is continuous and cannot reasonably be discontinued or stopped for a time period whereby the ambient noise level can be determined, the measured noise level obtained while the source is in operation shall be compared directly to the lot's designated noise zone for the time of day the noise level is measured.

f. *Any noise source in excess of the standards set forth herein shall be permitted only with a Conditional Use Permit*

City of Vernon - Vibration

Section 17.22.070 Part B.1 of the City Code states the following.

Vibration. Upon a change of use or the occurrence of an event described in Table 17.64.030, Right to Continue Nonconforming Uses and Buildings, that requires compliance with the development standards, all of the businesses located on the lot shall be operated so that, cumulatively with existing vibrations of all new and existing equipment of all businesses on the lot, the steady ground vibration inherently and recurrently generated shall not exceed four hundredths of one inch per second particle velocity when measured at any point along the lot line of the lot on which the source of the vibration is located. The cumulative effect of vibrations in excess of four hundredths of one inch measured at any point along the lot line on which the source of the vibration is located shall be permitted only with a Conditional Use Permit.

4.13.2.2 Existing Conditions

The properties surrounding the site are zoned as General Industry (I). Areas along South Soto Street are also within the Commercial-1 and Commercial-2 zoning overlays. In summary, the GEP project equipment noise cannot generate a noise level above 75 dBA at the boundary of the GEP property (unless ambient noise levels exceed this standard).

To quantify the ambient noise levels around the site, we focused on the L502 metric which is consistent with the City Code for noise that could occur for a "cumulative period of more than 30 minutes in any hour." Noise levels were measured from 31 January to 3 February 2025 at the site. Tables 14.3-1 and 14.3-2 below summarize the measured noise levels at measurement locations. Figure 1 in Appendix G identifies the locations where noise was measured. The ambient noise levels at the neighboring properties are below the limits set in the City Code and therefore the City Code noise standards cannot be adjusted higher.

Table 14.3-1: Comparison of City Code Limits to Measured Ambient Noise Levels

Location	Measured Ambient Noise Levels (Hourly, L50)	City Code Noise Limit	Comment
LT-1: West S Soto Street	60 to 74 dB	75 dB	City Code noise standard cannot be adjusted higher
LT-2: South E Vernon Avenue	55 to 69 dB	75 dB	
ST-1: North Bandini Blvd	59 to 73 dB*	75 dB	

Table 14.3-2: Measured Ambient Noise Levels, Re. City Community Noise Standards

Location	Measured Ambient Noise Levels
LT-1: West S Soto Street	CNEL 77 dB to CNEL 82 dB
LT-2: South E Vernon Avenue	CNEL 70 dB to CNEL 74 dB
ST-1: North Bandini Blvd	CNEL 76 dB to CNEL 81 dB*

*Note: Range of noise levels at an "ST" location is estimated based on a simultaneous short-term measurement at the "ST" location and other nearby long-term measurements.

4.13.3 Environmental Impact Discussion

For purposes of analyzing potential Noise impacts, it is necessary to separate the discussion of potential impacts of the VBGF and the GEP because they represent two distinct sources of sound generation. .

4.13.3.1 Would the project generate 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?

Construction

Table 14.3-3 summarizes the equipment expected to be used in each phase of construction.

Table 14.3-3: Expected Construction Equipment per Phase

	Concrete	Auger Cast Piles	Paving	Grading	Utilities	Steel Erection	Bldg. Envelope	Finishes
Rubber Tired Dozers	X	X		X	X		X	
Excavators				X	X			
Loaders/Backhoes	X	X		X	X		X	X
Cranes	X	X				X	X	
Drill Rig		X						
Forklifts	X	X		X		X	X	X
Generator Sets						X		
Welders						X		
Pavers			X	X				
Vibratory Compactor			X	X				
Concrete Pump	X	X						
Air Compressors		X						

Tables 14.3-4 and 14.3-5 summarize the typical construction noise levels expected per construction phase at nearby receptors (based on the types of equipment to be used). Table 14.3-4 lists the range of maximum noise levels to be expected from each of a variety of planned equipment. Table 14.3-5 lists the typical aggregate noise levels expected per phase based on concurrent operation of all equipment and "usage factors" published by FHWA and Caltrans (i.e., between 20% and 50% operation per hour) for each activity. The levels listed are thus the highest hourly average noise levels expected during each phase. The calculation distances are increased to account for the spatial spreading of equipment around the project site. Noise levels might be further reduced by any temporary fencing or structures that are not included in our analysis (to be conservative).

Table 14.3-4: Range of Maximum Construction Equipment Noise Levels

Location:		Nearest Receptors	Other Receptors
Construction Phase	Equipment	Noise at 50 ft (dBA)	Noise at 200 ft (dBA)
Grading, Site Work, Utilities	Pavers, compactors, forklifts, loaders, backhoes, excavators, dozers	74 to 89	62 to 77
Foundations & Concrete	Concrete pump, air compressor, drill rig, forklifts, loaders, backhoes, excavators, dozers	79 to 85	67 to 73
Building Construction	Cranes, Forklifts, Generator, Tractors, Loaders, Backhoes, Welders	73 to 85	61 to 73

Table 14.3-5: Typical Average Construction Equipment Noise Levels*

Location:	Nearest Receptors	Other Receptors
Construction Phase	Noise at 100 ft (dBA)	Noise at 400 ft (dBA)
Demolition	83	71
Site Work	82	70
Building Construction	80	68

*aggregate of all equipment per construction phase

The City of Vernon does not expressly limit construction noise. As identified in Table 14.3-5 above, the conservative estimate of aggregate construction noise is largely confined to areas near the site. There are no sensitive receptors (e.g. schools or residences) near the site. The Environmental Noise and Vibration Assessment Technical Background Report recommended several measures that, if feasible, could be incorporated into the project to reduce noise. Although it is not necessary to ensure construction of the Project would not result in significant noise impacts to any sensitive receptor, GIC Vernon, LLC has reviewed the suggested measures and has incorporated those deemed to be feasible into **PDM NOISE-1** below.

Operation

Operational – Vehicular Traffic Noise

Existing noise levels at the site are in-line with the City standards for "Normally Compatible" noise levels. The project is not expected to substantially increase traffic on neighboring roadways compared to previous conditions. The project is projected to result in 110 staff vehicular trips and 50 visitor trips per day. This is far below the existing traffic volumes on nearby roadways. For reference, the project would need to roughly double the traffic volume on nearby roadways in order to cause a significant increase in ambient noise levels of 3 dB or greater.

Vehicular activity on-site at drive paths and parking lots is not expected to be significantly different than previous activities at portions of the site and neighboring land-uses. This activity is also not expected to exceed the land-use compatibility standards of neighboring receptors.

Operational – Building HVAC Equipment

Mechanical equipment associated with data center includes rooftop chillers and packaged AC units. Based on equipment sound data provided for the equipment, normalized sound levels at a distance of 50 feet are provided below to characterize the source equipment. The GEP (both buildings) includes 70 chillers and 4 DOAS RTU (dedicated outside air supply rooftop unit), 2 MAU RTU (make-up air) and 8 split-system condensing units (CU).

- Air Cooled Chiller: 75 dB
- Rooftop RTU (DOAS): 67 dB
- Rooftop RTU (MAU): 58 dB
- Split-System CU: 20 dB

Based on these sound levels and the current plans, noise levels were modeled at each nearest neighboring property in each direction. The analysis accounts for the acoustical shielding expected from the parapet wall for a receiver at grade (height of 5 feet). Projected noise levels account for receiver locations at the property line and at a neighboring property that is across the street from the project (whichever location would be louder, to be conservative).

The results of our analysis are summarized in Table 4.13-6 below, which shows that noise predicted from the building HVAC systems will be less than the City requirements.

Table 14.3-6: Rooftop HVAC Equipment Analysis Results Summary

Direction	Calculated HVAC Equipment Noise Level	City Noise Limit
South (along E Vernon)	67 to 71 dB	75 dB
West (along S Soto)	64 dB	
North (adjacent property)	64 to 67 dB	
East (adjacent property)	70 dB	

Operational - Backup Generators

Backup generators are used in emergency scenarios and must also be operated routinely for maintenance and testing. The analysis of generator noise used the currently selected generator and enclosure system that is rated to generate a sound level of 70 dB at a distance of 23 feet (7 meters). To be conservative, the analysis modeled the noise generated from up to 19 units simultaneously even though testing and maintenance of the generators would be conducted one generator at a time. Table 14.3-7

Table 14.3-7: GENERATOR Equipment Analysis Results Summary

Direction	Calculated Generator Equipment Noise Level	City Noise Limit
South (along E Vernon)	69 dB	75 dB
West (along S Soto)	67 dB	
North (adjacent property)	74 dB	
East (adjacent property)	50 dB	

The noise predicted for this scenario was less than the City limit of 75dB.

As outlined above the predicted noise levels from construction of the Project would be temporary and would not result in significant impact. Additionally operation of the generators for the VBGF and operation of the HVAC equipment of the GEP does not exceed the significance threshold at any adjacent property. **(Less Than Significant Impact)**

4.13.3.2 Would the project generate excessive groundborne vibration or groundborne noise levels?

Construction Vibration

Table 4.13-8 presents typical vibration levels that could be expected from construction equipment at the setbacks of nearby sensitive receptors (75 and 100 feet). Note that exact

vibration levels will vary depending on soil conditions, construction methods, and equipment used at the site.

Table 14.3-8: Expected Construction Vibration Levels Compared to Recommended Thresholds

Location	Nearest Receptors	Other Receptors	Human Perception Thresholds	Building Damage Thresholds
Equipment	PPV at 50 ft. (in/sec)	PPV at 100 ft. (in/sec)	PPV (in/sec)	PPV (in/sec)
Rubber Tired Dozers	0.05	0.01	0.04 for continuous sources 0.25 for	0.5 for continuous sources 2.0 for
Excavators	0.05	0.01		
Impactor	0.05	0.01		
Tractors/Loaders/Backhoes	0.05	0.01		
Concrete/Industrial Saws	0.05	0.01		
Bore/Drill Rigs	0.05	0.01		
Graders	0.05	0.01		
Cranes	0.03	0.01		
Forklifts	0.00	0.00		
Generator Sets	N/A	N/A		
Welders	N/A	N/A		
Pavers	0.05	0.01		
Cement and Mortar Mixers	0.03	0.01		
Vibratory Rollers	0.10	0.02		

Most construction activities are expected to generate maximum vibration levels that are below standard thresholds building damage and in the acceptable range for human perception at nearby sensitive receptors, with the exception of vibratory rollers. Vibration from vibratory rollers would exceed the threshold of 0.04 PPV (in/sec) up to a distance of approximately 120 feet. However, there are no residential receptors at such a close distance. Therefore, we find that no additional vibration reduction methods are needed.

Vibration impacts from construction would therefore not be significant. **(Less Than Significant Impact)**

Operation

Vibrating equipment has the potential to generate vibration at neighboring properties. The backup- generators are located at grade foundations and as close as 55 feet from the property line. Assuming that the regular monthly testing of the generators must meet the 0.04 PPV inch/second City Code limit at adjacent properties, vibration isolation of the generators is expected to be necessary. The Environmental Noise and Vibration Assessment Technical Background Report in Appendix G recommended that in order to meet the City Code vibration limit, the generators should be vibration isolated with spring mounts selected to have a minimum 1-inch static deflection. The Project has incorporated

this recommendation into its generator selection, which include spring mounts into the design. See the generator specification sheet in Appendix G.

HVAC equipment inside the building and on the roof is expected to be vibration isolated per industry standard measures (e.g., per ASHRAE guidelines). Therefore, the equipment is not expected generate significant vibration levels beyond the immediate vicinity of the equipment.

Vibration impacts from operation would therefore not be significant. **(Less Than Significant Impact)**

4.13.3.3 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, would the project expose people residing or working in the project area to excessive noise levels?

The project is not within the vicinity of a private airstrip or an airport land use plan. **(No Impact)**

4.13.4 Project Design Measures

No mitigation measures are necessary because the Project has incorporated measures into the design and operation of the project to ensure noise-related impacts minimized to less than significant levels. However, in order to further minimize potential noise effects PDM NOISE-1 below has been incorporated into the design of the Project.

PDM NOISE-1: The Project will incorporate the following measures into its construction activities:

11. Require posted signs at the construction site that include permitted construction days and hours, a day and evening contact number for the job site and a day and evening contact number for the City in the event of problems.
12. Notify the City and neighbors within 300 feet in advance of the schedule for each major phase of construction and expected loud activities.
13. When feasible, locate noisy stationary equipment (e.g., generators, pumps, compressors) and material unloading and staging areas away from the sensitive adjacent uses (school and residences).
14. Require that all construction equipment be in good working order and that mufflers are inspected to be functioning properly. If feasible, impact tools shall

be shrouded or shielded with intake and exhaust port mufflers when used near noise-sensitive receptors.

15. Avoid unnecessary idling of equipment and engines and to a maximum of 15 minutes near noise- sensitive receptors.
16. Consider means to reduce the use of heavy impact tools and locate these activities away from the property line as feasible.
17. Use hydraulic or electric-powered tools wherever possible to avoid noise associated with compressed air exhaust from pneumatically-powered tools
18. Minimize drop height when loading excavated materials onto trucks.
19. Minimize drop height when unloading or moving materials on-site.
20. House air compressors, generators, and other loud stationary equipment in a sound-attenuating enclosure, located near sensitive receptors.

4.13.5 Government Agencies

The City of Vernon has sole regulatory authority over noise and will review and enforce noise-related requirements as part of its permit review and implementation process.

4.14 POPULATION AND HOUSING

4.14.1 CEQA Checklist

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Population and Housing				
Would the project:				
1) 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)?	☐	☐	☒	☐
2) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

4.14.2 Environmental Setting

4.14.2.1 Regulatory Framework

State

Housing-Element Law

State requirements mandating that housing be included as an element of each jurisdiction's general plan is known as housing-element law. The Regional Housing Need Allocation (RHNA) is the state-mandated process to identify the total number of housing units (by affordability level) that each jurisdiction must accommodate in its housing element. California housing-element law requires cities to 1) zone adequate lands to accommodate its RHNA; 2) produce an inventory of sites that can accommodate its share of the RHNA; 3) identify governmental and non-governmental constraints to residential development; 4) develop strategies and a work plan to mitigate or eliminate those constraints; and 5) adopt a housing element and update it on a regular basis. The City of Vernon Housing Element was adopted in 2015.

Regional and Local

Southern California Association of Governments (SCAG) Connect SoCal 2024

Connect SoCal 2024 is a long-range transportation, land-use, and housing plan intended to support a growing economy, provide more housing and transportation choices, and reduce transportation-related pollution and GHG emissions in Southern California.[25]

4.14.2.2 Existing Conditions

The project is proposed in the City of Vernon in Los Angeles County. As discussed further below GIC Vernon estimates that local workers will be drawn from the greater Los Angeles County region and therefore not likely to temporarily (during construction) or permanently (during operations) move closer to the project. The City of Vernon and the Los Angeles County Region comprise the primary study area for population and housing-related impacts.

Population Growth

Population, housing, and employment numbers for cities and counties are provided by three standard sources: the U.S. Census Bureau, the California DOF, and SCAG. Since these three organizations use different methods of data collection and calculation, they do not always arrive at the exact same results.

For purposes of this section, the term “households” refers to occupied dwelling units, as defined in the U.S. Census. Therefore, household counts do not include all inhabitable dwelling units existing within the City. The U.S. Census Bureau decennial census occurs every 10 years in the years ending in zero to count the population and housing units in the entire United States. While its primary purpose is to provide the population counts that determine how seats in the U.S. House of Representatives are apportioned, the census data forms the basis for which most demographic projections are calculated.

The most recent census for which data is available was collected in 2020. The 2020 national census data, which was compiled using answers to surveys sent to all households within the United States, are provided for the nation, all states, and all counties, as well as each individual city. Additionally, the U.S. Census conducts the American Community Survey annually, to provide updated data estimates between its decennial censuses

[25] Southern California Association of Governments, Connect SoCal 2024, https://scag.ca.gov/about-us-governing-structure

The State of California DOF publishes population and housing estimates, updated yearly, for the state's counties and cities. The DOF estimates population growth based on census data and growth calculations.

SCAG has adopted population, dwelling unit, household, and employment forecasts for the Los Angeles region. The Los Angeles region includes all the cities and unincorporated areas in Los Angeles County.

These growth forecasts, which are based on U.S. Census data, were developed by SCAG staff with input from the planning staffs of the County and each pertinent city and are used for regional planning efforts such as the Regional Transportation Plan (RTP). Growth forecasts are provided for the total region, each growth and non-growth area within the County, and each city within the region. Growth areas within Los Angeles County are defined as geographic subareas where urban development has already taken place or is expected to take place, while nongrowth areas are defined as where urban development is not expected to occur.

In 2008, SCAG initiated the Local Profiles project as a part of a larger initiative to provide a variety of new services to its member cities and counties. Through extensive input from member jurisdictions, the inaugural Local Profiles Reports were released at the SCAG General Assembly in May 2009. The Local Profiles have since been updated every two years.

The 2019 Local Profiles reports provide a variety of demographic, economic, education, housing, and transportation information about each member jurisdiction including, but not limited to, the following:

- Population growth since 2000
- Population growth relative to Los Angeles County
- Homeownership rates
- Employment information

According to the U.S. Census, the County of Los Angeles' population increased from 9,818,605 persons in 2010 to 10,014,009 persons in 2020.[26] This represents a 1.99 percent increase in County population from 2010 to 2020. The City of Vernon's population increased from 112 persons in 2010 to 222 persons in 2020.[27] This represents a 98.2

[26] *US Census Bureau. Los Angeles County Population Data. Available online at: https://data.census.gov/cedsci/table?q=Los%20Angeles%20County,%20California&tid=DECENNIALPL2020.P1*

[27] *US Census Bureau. City of Vernon Population Data. Available online at: https://data.census.gov/cedsci/table?q=Vernon%20city,%20California&tid=DECENNIALPL2020.P1*

percent increase in City population from 2010 to 2020. According to the City of Vernon's Housing Element, the doubling of the population was a result from the construction of a 45-unit affordable housing building in 2015 on the eastern side of the City outside the Project Area.

Housing

There is a total of 74 housing units in the City of Vernon.[28] According to the City of Vernon's 2021-2029 Housing Element the City's housing stock was built slowly from 1939 to today. Of the 74 units, the City owns 26 units. In 2015, 45 affordable units were added to the housing stock with the construction of the Vernon Village Park Apartments, which is owned and operated by a private housing corporation. This housing development encompasses the majority of the privately-owned housing stock within the City. The majority of the units in the City are in good condition. The City recently updated all but two of these City-owned units, and the 50 privately-owned units in the City are also in good condition.[29] Seventy percent of the housing stock in the City of Vernon is made up of multi-family residential, and 30 percent is single-family detached housing (23 units).[30]

Labor Supply

Table 4.14-3 presents the California Employment Development Department Current (2024) and Projected (2030) Occupational Employment Projections for the construction and data processing, hosting and related services occupations in the region.

Table 4.14-1
CURRENT AND PROJECTED EMPLOYMENT GROWTH[31][32]

Los Angeles County	Year 2024	Year 2030	Percent Change
Construction	149,100	165,300	10.9
Data Processing, Hosting and Related Services	11,800	13,200	11.9

[28] City of Vernon Housing Element 2021-2029
https://www.cityofvernon.org/home/showpublisheddocument/2064/637788133673870000

[29] Ibid.

[30] Ibid.

[31] Employment Development Department, State of California (CA EDD). Labor Market Information Division, 2024 Employment by Industry, Los Angeles County https://data.ca.gov/dataset/current-employment-statistics-ces-2/resource/98b69522-557e-464a-a2be-4226df433da1?filters=Area%20Name%3ALos%20Angeles%20County%7CDate%3A03%2F1%2F2024

[32] Employment Development Department, State of California (CA EDD). Labor Market Information Division, Projected Employment by Industry, Los Angeles County https://data.ca.gov/dataset/b1ac39b1-33cc-4577-b584-6259406ce835/resource/5642307f-30c2-4ddb-b811-507b338e0b4d/download/ca-lt-ind-emp-2022-2032.csv

4.14.3 Environmental Impact Discussion

For purposes of analyzing potential population and housing impacts, it is not necessary or prudent to separate the potential impacts of the VBGF and the GEP. Therefore, the following analysis uses the term "Project" which encompasses both construction and operation of the VBGF, the GEP and all related ancillary facilities.

4.14.3.1 Would 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)?

Construction

The project would not directly or indirectly induce substantial unplanned growth in City of Vernon. The project does not propose new housing, and it would not facilitate growth through the extension of roads, water supply pipelines, or other growth-inducing infrastructure. Therefore, there would be no indirect population growth.

The only construction activities for the VBGF would involve construction of the generation yards, which includes the construction of concrete slabs and curbs, installation of underground and above ground conduit and electrical cabling to interconnect to the GEP switchgear, and placement and securing of the generators. Construction of the generation yards is expected to take six months. Placement of the generators will be driven by leasing. All of generators could be placed as early as immediately after construction of the generator yards or phased over time in groups as portions of the buildings are leased and ending when the buildings are fully leased.. Project construction workforce for the VBGF is estimated to be between 10 and 15 workers.

Construction activities for the GEP include grading, excavation, and construction and would take approximately 16 months. The estimated construction workforce for the GEP and the VBGF would average 100 workers per month and have an estimated peak of 150 per month.

As shown in Table 4.14-3, there is a sufficient local construction workforce, with an estimated 149,100 construction trades workers currently in the project's employment region that would accommodate the projected labor needs for construction of the project. The peak workforce of 150 workers per month for the GEP would account for 0.1 percent or less of the available projected construction trades workers in the project's employment region. With a local workforce available to serve the project during the expected construction period, it is not expected that workers would come from outside of the greater Los Angeles region. Therefore, the project's construction workforce would not directly or indirectly induce substantial population growth in the project area. The impact from project construction would be less than significant. **(Less Than Significant Impact)**

Operations

The GEP is expected to require a total of up to 35 employees, with up to 50 visitors (including deliveries) visiting the GEP site daily. The VBGF would not have any dedicated employees. Therefore, approval of the project would not substantially increase operation jobs in the City to a level that would exceed planned population growth in the greater Los Angeles County Region. With access to a large labor supply in the Los Angeles County region, operation workers are not likely to permanently relocate closer to the project site. However, if some workers were to permanently relocate closer to the project, it is unlikely that few workers would directly or indirectly induce a substantial population growth in the project area. The proposed project would not induce substantial population growth in the City or substantially alter the City's job/housing ratio. Therefore, the Project would result in a less than significant impact. **(Less than Significant Impact)**

4.14.3.2 Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

The existing project site does not include residents or housing units and, therefore, the project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. **(No Impact)**

4.14.4 Project Design Measures

No project design measures are necessary to ensure that population and housing impacts are less than significant.

4.14.5 Government Agencies

The only agency with regulatory authority related to growth and housing is the City of Vernon.

4.15 PUBLIC SERVICES

4.15.1 CEQA Checklist

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Public Services				
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically 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:				
1) Fire Protection?	☐	☐	☒	☐
2) Police Protection?	☐	☐	☒	☐
3) Schools	☐	☐	☒	☐
4) Parks	☐	☐	☒	☐
5) Other Public Facilities	☐	☐	☐	☒

4.15.2 Environmental Setting

4.15.2.1 Regulatory Framework

State

Government Code Section 66477

The Quimby Act (included within Government Code Section 66477) requires local governments to set aside parkland and open space for recreational purposes. It provides provisions for the dedication of parkland and/or payment of fees in lieu of parkland dedication to help mitigate the impacts from new residential developments. The Quimby Act authorizes local governments to establish ordinances requiring developers of new residential subdivisions to dedicate parks, pay a fee in lieu of parkland dedication, or perform a combination of the two.

Government Code Section 65995 through 65998

California Government Code Section 65996 specifies that an acceptable method of offsetting a project's effect on the adequacy of school facilities is the payment of a school impact fee prior to the issuance of a building permit. Government Code Sections 65995

through 65998 set forth provisions for the payment of school impact fees by new development by “mitigating impacts on school facilities that occur (as a result of the planning, use, or development of real property” (Section 65996[a]). The legislation states that the payment of school impact fees “are hereby deemed to provide full and complete school facilities mitigation” under CEQA (Section 65996[b]).

Developers are required to pay a school impact fee to the school district to offset the increased demands on school facilities caused by the proposed residential development project. The school district is responsible for implementing the specific methods for mitigating school impacts under the Government Code.

4.15.2.2 Existing Conditions

Fire Service

In 2021, the Vernon Fire Department was disbanded and merged with the Los Angeles Fire Department (LACoFD). Fire protection and other related services in the City are now provided by LACoFD. Vernon is located within Division VI, which encompasses Battalions 13 and 20, and serves seven cities. There are several fire stations that serve the region. Station 52 is the closest station and is located approximately ¾ of a mile west of the Project at 4301 S. Santa Fe Avenue in the City of Vernon. Station 13 is located approximately 1 mile to the east of the Project at 3375 Fruitland Avenue in the City of Vernon. Station 164 is located approximately 1-3/4 miles south of the Project at 6301 Santa Fe Avenue in the City of Huntington Park.

LACoFD is responsible for providing fire protection and life safety services to residents in 59 cities and all unincorporated areas of Los Angeles County, including the City of Vernon. LACoFD services include firefighting, emergency medical services, fire prevention, hazardous materials, urban search and rescue, air and wildland, lifeguarding, emergency preparedness, and public education. It serves over four million residents. LACoFD has 177 fire stations, 288 engine companies, 112 paramedic units, 10 helicopters. It also has specialized resources, including four hazardous material squads, six swift water rescue units, two urban search and rescue squads, and two fire boats.3 In 2021, LACoFD had 5,028 personnel, and they responded to 11,373 fire incidents, 312,550 emergency medical responses, and 80,001 other incidents

Police Service

Law enforcement protection services for the City of Vernon are provided by the Vernon Police Department (VPD). The VPD includes a Patrol Division, Professional Standards Division, Communications Center, Record Division, and Detective Bureau. The Patrol Division handles all calls from the public and includes a Bicycle Patrol Team, a Motor Unit, a Canine Team, and a D.A.R.E Program for the local Vernon Elementary School.

The Professional Standards Division is responsible for the Business Labor Relations, Crime Prevention, citizen personnel complaints, training, recruitment, and for the coordination and release of information to the public and news media.

Parks, Schools, and Libraries

The nearest public recreation center to the Project is the located at 5350 Alba Street approximately 1-1/2 miles to the southwest of the Project Site boundary. The nearest public park to the Project is the Raule Perez Memorial Park located at 6208 Alameda Street in Huntington Park approximately 1-3/4 miles the southwest of the Project Site boundary.

The nearest public school to the Project site is the Vernon City Elementary School, which is located within approximately 0.7 of a mile west of the project site.

There are no libraries within the City of Vernon. The nearest library to the Project is the Huntington Park Library branch of the Los Angeles County Public Library System located approximately 1-3/4 mile south of the Project site.

4.15.3 Environmental Impact Discussion

For purposes of analyzing potential Public Service-related impacts, it is not necessary or prudent to separate the potential impacts of the VBGF and the GEP. Therefore, the following analysis uses the term “Project” which encompasses both construction and operation of the VBGF, the GEP and all related ancillary facilities.

4.15.3.1 Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically 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 fire protection services?

The project site is currently served by the LACoFD. The proposed project may result in an incremental increase in the need for fire services associated with increased building area but would not require the construction of new facilities or stations.

The project would be constructed in conformance with current building and fire codes, and the LACoFD would review project plans to ensure appropriate safety features are incorporated to reduce fire hazards. The potential incremental increase in fire protection services would not require new or expanded fire protection facilities, the construction of which could cause significant environmental impact, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection services. **(Less than Significant Impact)**

4.15.3.2 Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically 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 police protection services?

The project site is currently served by the VPD. The Project may result in an incremental increase in the need for police services associated with increased building area and employees but would not require the construction of new facilities or stations.

The VPD would review the final site design, including proposed landscaping, access, and lighting, to ensure that the project provides adequate safety and security measures. The potential incremental increase in police protection services would not require new or expanded police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service rations, response times or other performance objectives for police protection services. **(Less than Significant Impact)**

4.15.3.3 Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically 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 schools?

The proposed project would not generate substantial population growth in the project area or result in the use of public facilities in the area by new residents. The Project proposes a data center facility, not a residential use, and would therefore not generate students. The Project, therefore, would not require new or expanded school facilities, the construction of which could cause environmental impacts. **(No Impact)**

4.15.3.4 Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically 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 parks?

The proposed project would not generate substantial population growth in the project area or result in the use of public facilities in the area by new residents. Some employees at the project site may visit local parks; however, this use would not create the need for any new facilities or adversely impact the physical condition of existing facilities. **(Less than Significant Impact)**

4.15.3.5 Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically 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 other public facilities?

The proposed Project would not generate substantial population growth in the project area or result in the use of public facilities in the area by new residents. Some Project employees may visit nearby libraries; however, this would not create the need for any new facilities or adversely impact the physical condition of existing facilities. **(No Impact)**

4.15.4 Project Design Measures

No project design measures are necessary since the project does not adversely affect public services.

4.15.5 Government Agencies

The City of Vernon and its divisions have regulatory authority over public services within the project area and will ensure compliance with any of its requirements through its permit review process.

4.16 RECREATION

4.16.1 CEQA Checklist

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Recreation				
1) Would 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?	☐	☐	☒	☐
2) 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?	☐	☐	☒	☐

4.16.2 Environmental Setting

4.16.2.1 Regulatory Framework

State

Government Code Section 66477

The Quimby Act (included within Government Code Section 66477) requires local governments to set aside parkland and open space for recreational purposes. It provides provisions for the dedication of parkland and/or payment of fees in lieu of parkland dedication to help mitigate the impacts from new residential developments. The Quimby Act authorizes local governments to establish ordinances requiring developers of new residential subdivisions to dedicate parks, pay a fee in lieu of parkland dedication, or perform a combination of the two.

Local and Regional

The major open space resources in City of Vernon consist of the Los Angeles River Channel and utility easements. Given the City's industrial character, it has not needed residential services such as parks. Most buildings are built to the sidewalk line, leaving limited room for landscaping. There are several parks in the surrounding communities. Fred Roberts Recreation Center and Pueblo Del Rio Recreation Center are located approximately to the west of the Project on Long Beach Avenue. Augustus F. Hawkins Nature Park, which includes a nature museum and 8.5 acres of native plants and wetlands, is located to the west of the Project, and the Raul R. Perez Memorial Park is

located south of the Project. One of the closest regional parks is Elysian Park in Los Angeles, located approximately north of the Project. It is an expansive park totaling 600 acres that offers a variety of recreational amenities. Hollydale Regional Park is located approximately several miles to the southeast of the Project in South Gate and serves as a local recreation spot with athletic fields, basketball and tennis courts.

The National Recreation and Parks Association recommends five acres of parkland for every 1,000 residents. However, the Quimby Ordinance enable cities in California with standards of three acres per 1,000 residents to assess new developments an impact fee for park development.

4.16.3 Environmental Impact Discussion

For purposes of analyzing potential recreation related impacts, it is not necessary or prudent to separate the potential impacts of the VBGF and the GEP. Therefore, the following analysis uses the term "Project" which encompasses both construction and operation of the VBGF, the GEP and all related ancillary facilities.

4.16.3.1 Would 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?

The proposed Project would not increase employment substantially. Some Project employees may use nearby parks and recreational facilities; however, this would not have an impact on these facilities such that adverse physical effects would result. **(Less than Significant Impact)**

4.16.3.2 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?

The proposed project would not include recreational facilities. Some Project employees may use nearby parks and recreational facilities; however, this would not require the construction or expansion of recreational facilities. **(Less than Significant Impact)**

4.16.4 Project Design Measures

No project design measures are necessary to ensure that recreation impacts are less than significant.

4.16.5 Government Agencies

The only agency with regulatory authority related to recreation is the City of Vernon.

4.17 TRANSPORTATION

This section is based on the Transportation Impact Assessment Technical Memorandum by Kimley Horn dated February 10, 2025 to analyze the project's potential impacts to traffic and contained in Appendix H.

4.17.1 CEQA Checklist

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Transportation				
Would the project:				
1) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☐	☒
2) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b) regarding vehicle miles travelled?	☐	☐	☒	☐
3) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
4) Result in inadequate emergency access?	☐	☐	☐	☒

4.17.2 Environmental Setting

4.17.2.1 Regulatory Framework

State and Local

In 2018, the California state legislature, in approving SB 743, directed the Office of Planning and Research to develop guidelines for assessing transportation impacts based on VMT. In response to SB 743, CEQA guidelines were significantly amended regarding the methods by which lead agencies are to evaluate a project's transportation impacts.

4.17.2.2 Existing Conditions

The Project is located in City of Vernon on parcels that were previously used for a large scale slaughtering facility. The slaughtering facility has been demolished and the site is currently vacant.

Regional access to the site is provided by Interstate 10. Local access to the site is provided by South Soto Street, East 37th Street/Bandini Boulevard, and East Vernon Avenue.

Pedestrian facilities in the study area include sidewalks, crosswalks, and pedestrian signals. Five to eight-foot sidewalks are provided along both sides of South Soto Street and East Vernon Avenue. Crosswalks are provided at signalized intersections. Pedestrian push-button actuated signals are provided at signalized intersections.

The City of Vernon Master Bicycle Plan identifies development of a future shared use Class I path planned along the former railroad bed along the southern side of the LA River.

Similar to other data centers sites, the GEP will be operational 24 hours, 7-days a week. On a typical weekday, approximately 30-35 employees and 50 visitors would be expected to visit the site based on use patterns at other similar facilities.

4.17.3 Environmental Impact Discussion

For purposes of analyzing potential transportation related impacts, it is not necessary or prudent to separate the potential impacts of the VBGF and the GEP. Therefore, the following analysis uses the term “Project” which encompasses both construction and operation of the VBGF, the GEP and all related ancillary facilities.

4.17.3.1 Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

The GEP would not conflict with any plan ordinance or policy addressing the circulations system. Even though the Vernon Master Bicycle Plan identifies development of a future shared use Class I path planned along the former railroad bed along the southern side of the LA River, the plans are outside the Project Site and property boundary. The GEP will not affect the development of the future Class I path.

Vehicles may access the site either South Soto Street or East Vernon Avenue. Each building has separate entrances and exits. In addition the site has an emergency fire access on South Soto Street. For pedestrian traffic, the site will be accessible through city standard sidewalks along both South Soto Street and East Vernon Avenue.

The project proposes no features which conflict with existing or planned transit services. The project is not expected to result in increases in ridership on local or regional transit facilities that would exceed their capacity.

Transit, roadway, bicycle, and pedestrian facilities are not expected to change and therefore will not be impacted due to the project. For all these reasons, the project will not cause transportation-related impacts **(No Impact)**.

4.17.3.2 Would the project conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b) regarding vehicle miles travelled?

Construction Traffic

While CEQA does not require a VMT analysis to determine impacts, it does require a description of the potential construction traffic and a qualitative discussion. A description of the anticipated construction traffic and a qualitative discussion is provided below.

Project construction is anticipated to last approximately 16 months. All construction laydown and staging are anticipated to be completed within the project site. All construction vehicle access to the site, for both trucks and worker vehicles, would occur via either South Soto Street or East Vernon Avenue.

To minimize the potential adverse effects of construction traffic, the Project Owner has incorporated **PDM TRANS-1** into the design of the Project. With the implementation of the measures incorporated into **PDM TRANS-1**, the project will not result in significant transportation impacts during construction **(Less Than Significant Impact)**

Operation Traffic

The City of Vernon does not have a specific VMT policy. However Los Angeles County's *Transportation Impact Analysis Guidelines* provides guidance on when a project may be exempt from performing CEQA VMT analysis if the project meets at least one screening criteria based on:

- Non-Retail Trip Generation
- Retail Project Site Plan
- Proximity to Transit
- Residential Land Use

As discussed in the Transportation Impact Assessment Technical Memorandum contained in Appendix H, according to the County guidelines, a project that generates less than 110 daily vehicle trips is exempted from the requirement to perform a VMT analysis. As shown in Table 3 of Appendix H, the project operation generated trips are less than 110 non-residential trips. Since the Project satisfies non-residential trip generation screening criterion, a presumption of less than significant impact can be made and no additional VMT analysis is required. **(Less Than Significant Impact)**

4.17.3.3 Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The project is repurposing a site with a historic industrial use as a slaughtering house. The site is not modifying the existing roadways and has designated entrance and exit accessways from South Soto Street and East Vernon Avenue. These access points will meet City and Fire District standards and therefore will not substantially increase hazards or incompatible uses. **(Less Than Significant Impact)**

4.17.3.4 Would the project result in inadequate emergency access?

Several factors determine whether a project has sufficient access for emergency vehicles, including the following:

- Number of access points (both public and emergency access only)
- Width of access points
- Width of internal roadways

The project's primary emergency access point will be from East Soto Street. However, each of the other four access points from East Soto Street and East Vernon Avenue could be used as second emergency vehicle access to the site if required during an emergency response. The internal roadway widths and intersection configurations/sizing have been designed in accordance with City Fire requirements and design standards. As part of the project's final design and permitting process, the Project Owner will seek and obtain approval of the Los Angeles County Fire District. All internal roadways and intersections have been designed to be adequate width to meet Fire District standards and accommodate the design fire vehicle's turning radius. **(No impact)**

4.17.4 Project Design Measures

To ensure that potential adverse construction traffic related effects are minimized, the Project Owner has incorporated the following PDM into the design of the Project

PDM TRANS-1: A Construction Traffic Management Plan shall be developed and implemented to minimize impacts to the transportation system. The Construction Traffic Management Plan shall detail the project's construction schedule, vehicle type time-of-day plans, route planning, advanced public notices of partial or full street closures or traffic diversion, and other strategies to reduce potential conflicts during construction. The plan shall include, but not be limited to, the following:

- Identification of the traffic controls and methods proposed during each phase of project construction. Provision of safe and adequate access for vehicles, transit,

bicycles, and pedestrians. Traffic controls and methods employed during construction shall be in accordance with City of Vernon standards and the requirements of the Manual of Uniform Traffic Control Devices (FHWA, 2009 MUTCD with Revisions 1, 2 and 3, July 2022).

- Provision of notice to relevant emergency services, thereby avoiding interference with adopted emergency plans, emergency vehicle access, or emergency evacuation plans.
- Preservation of emergency vehicle access.
- Identification of approved truck routes in communication with City of Vernon.
- Location of staging areas and the location of construction worker parking.
- Identification of the means and locations of the separation (i.e., fencing) of construction areas and adjacent active uses.

4.17.5 Government Agencies

The City of Vernon has regulatory authority over the transportation infrastructure that could be affected by the project and will ensure compliance with any requirements including emergency access requirements by the fire department during its permit review and implementation process.

4.18 UTILITIES AND SERVICE SYSTEMS

4.18.1 CEQA Checklist

ENVIRONMENTAL ISSUES	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Utilities and Service Systems				
Would the project:				
1) 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?	☐	☐	☒	☐
2) Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
3) Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
4) 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?	☐	☐	☒	☐
5) Be noncompliant with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

4.18.2 Environmental Setting

4.18.2.1 Regulatory Framework

Federal

Clean Water Act (CWA) / National Pollutant Discharge Elimination System (NPDES) Permits

The CWA is the cornerstone of water quality protection in the United States. The statute employs a variety of regulatory and non-regulatory tools to sharply reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. These tools are employed to achieve the broader goal of

restoring and maintaining the chemical, physical, and biological integrity of the nation's waters so that they can support "the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water."

The CWA regulates discharges from "non-point source" and traditional "point source" facilities, such as municipal sewage plants and industrial facilities. Section 402 of the Act creates the NPDES regulatory program which makes it illegal to discharge pollutants from a point source to the waters of the United States without a permit. Point sources must obtain a discharge permit from the proper authority (usually a state, sometimes EPA, a tribe, or a territory). NPDES permits cover industrial and municipal discharges, discharges from storm sewer systems in larger cities, storm water associated with numerous kinds of industrial activity, runoff from construction sites disturbing more than one acre, mining operations, and animal feedlots and aquaculture facilities above certain thresholds.

Permit requirements for treatment are expressed as end-of-pipe conditions. This set of numbers reflects levels of three key parameters: (1) biochemical oxygen demand (BOD), (2) total suspended solids (TSS), and (3) pH acid/base balance. These levels can be achieved by well-operated sewage plants employing "secondary" treatment. Primary treatment involves screening and settling, while secondary treatment uses biological treatment in the form of "activated sludge."

All so-called "indirect" dischargers are not required to obtain NPDES permits. An indirect discharger is one that sends its wastewater into a city sewer system, so it eventually goes to a sewage treatment plant. Although not regulated under NPDES, "indirect" discharges are covered by another CWA program called pretreatment. "Indirect" dischargers send their wastewater into a city sewer system, which carries it to the municipal sewage treatment plant, through which it passes before entering surface water.

Clean Water Act (CWA)

The Clean Water Act (CWA) regulates the water quality of all discharges into waters of the United States including wetlands, perennial and intermittent stream channels. Section 401, Title 33, Section 1341 of the CWA sets forth water quality certification requirements for "any applicant applying for a federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters."

The California SWRCB and RWQCBs enforce State of California statutes that are equivalent to or more stringent than the Federal statutes. RWQCBs are responsible for establishing water quality standards and objectives that protect the beneficial uses of various waters. (NPDES) Permit No. CAS612008, issued by Order No. R2-2009-0074 on October 14, 2009, which pertains to stormwater runoff discharge from storm drains and watercourses within their jurisdictions.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) was enacted in 1976 to address the huge volumes of municipal and industrial solid waste generated nationwide. After several amendments, the current Act governs the management of solid and hazardous waste and underground storage tanks (USTs). RCRA was an amendment to the Solid Waste Disposal Act of 1965. RCRA has been amended several times, most significantly by the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA is a combination of the first solid waste statutes and all subsequent amendments. RCRA authorizes the Environmental Protection Agency (EPA) to regulate waste management activities. RCRA authorizes states to develop and enforce their own waste management programs, in lieu of the Federal program, if a state's waste management program is substantially equivalent to, consistent with, and no less stringent than the Federal program.

State

California Department of Health Services

The Department of Health Services, Division of Drinking Water and Environmental Management, oversees the Drinking Water Program. The Drinking Water Program regulates public water systems and certifies drinking water treatment and distribution operators. It provides support for small water systems and for improving their technical, managerial, and financial capacity. It provides subsidized funding for water system improvements under the State Revolving Fund (SRF) and Proposition 50 programs. The Drinking Water Program also oversees water recycling projects, permits water treatment devices, supports and promotes water system security, and oversees the Drinking Water Treatment and Research Fund for methyl tertiary butyl ether (MTBE) and other oxygenates.

State Water Resources Control Board

The State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (Regional Water Boards), collectively known as the California Water Boards (Water Boards), are dedicated to a single vision: abundant clean water for human uses and environmental protection to sustain California's future. Under the federal Clean Water Act (CWA) and the state's pioneering Porter-Cologne Water Quality Control Act, the State and Regional Water Boards have regulatory responsibility for protecting the water quality of nearly 1.6 million acres of lakes, 1.3 million acres of bays and estuaries, 211,000 miles of rivers and streams, and about 1,100 miles of exquisite California coastline.

Consumer Confidence Report Requirements

CCR Title 22, Chapter 15, Article 20 requires all public water systems to prepare a Consumer Confidence Report for distribution to its customers and to the SWRCB. The Consumer Confidence Report provides information regarding the quality of potable water

provided by the water system. It includes information on the sources of the water, any detected contaminants in the water, the maximum contaminant levels set by regulation, violations and actions taken to correct them, and opportunities for public participation in decisions that may affect the quality of the water provided.

Urban Water Management Planning Act

The Urban Water Management Planning Act has as its objectives the management of urban water demands and the efficient use of urban water. Under its provisions, every urban water supplier is required to prepare and adopt a UWMP. An "urban water supplier" is a public or private water supplier that provides water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually. The UWMP must identify and quantify the existing and planned sources of water available to the supplier, quantify the projected water use for a period of 20 years, and describe the supplier's water demand management measures. The urban water supplier should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry years. The California Department of Water Resources must receive a copy of an adopted UWMP.

California Water Code

California's primary statute governing water quality and water pollution issues with respect to both surface waters and groundwater is the Porter-Cologne Water Quality Control Act of 1970 (Division 7 of the California Water Code) (Porter-Cologne Act). The Porter-Cologne Act grants the SWRCB and each of the RWQCBs power to protect water quality, and is the primary vehicle for implementation of California's responsibilities under the Federal Clean Water Act. The Porter-Cologne Act grants the SWRCB and the RWQCBs authority and responsibility to adopt plans and policies, to regulate discharges to surface and groundwater, to regulate waste disposal sites and to require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substance, sewage, or oil or petroleum product.

Each RWQCB must formulate and adopt a water quality control plan (Basin Plan) for its region. The regional plans are to conform to the policies set forth in the Porter-Cologne Act and established by the SWRCB in its State water policy. The Porter-Cologne Act also provides that a RWQCB may include within its regional plan water discharge prohibitions applicable to particular conditions, areas, or types of waste.

The Water Code Section 13260 requires all dischargers of waste that may affect water quality in waters of the state to prepare and provide a water quality discharge report to the RWQCB. Section 13260a-c is as follows:

(a) Each of the following persons shall file with the appropriate regional board a report of the discharge, containing the information that may be required by the regional board:

(1) person discharging waste, or proposing to discharge waste, within any region that could affect the quality of the waters of the state, other than into a community sewer system.

(2) A person who is a citizen, domiciliary, or political agency or entity of this state discharging waste, or proposing to discharge waste, outside the boundaries of the state in a manner that could affect the quality of the waters of the state within any region.

(3) A person operating, or proposing to construct, an injection well.

(b) No report of waste discharge need be filed pursuant to subdivision (a) if the requirement is waived pursuant to Section 13269.

(c) Each person subject to subdivision (a) shall file with the appropriate regional board a report of waste discharge relative to any material change or proposed change in the character, location, or volume of the discharge.

A Water Supply Assessment (WSA) is required pursuant to State Water Code Section 10910 if the project meets certain requirements outlined in Section 10912. A WSA is required for:

- A residential development of more than 500 units;
- A hotel or motel having more than 500 rooms;
- A commercial office building employing 1,000 people or having more than 250,000 sq. feet of floor space;
- An industrial, manufacturing or industrial park planned to house more than 1,000 employees or having more than 650,000 sq. feet of floor space;
- A mixed use project that contains one or more of the criteria above; or
- Any project that has a water demand equal to or greater than the amount of water required by a 500 dwelling unit development.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act is California's statutory authority for the protection of water quality. Under the Porter-Cologne Act, the State is required to adopt policies, plans, and objectives that will protect the State's waters for the use by and enjoyment of Californians. In California, the SWRCB has the authority and responsibility for establishing policy related to the State's water quality. Regional authority is delegated by the SWRCB to a RWQCB. The Porter-Cologne Act authorizes the SWRCB and RWQCB to issue NPDES permits.

Under the RWQCB NPDES permit system, all existing and future municipal and industrial discharges to surface water within the city would be subject to regulation. NPDES permits are required for operators of municipal separate storm sewer systems, construction projects, and industrial facilities. These permits contain limits on the amount of pollutants that can be contained in each facility's discharge.

State Water Resource Control Board Storm Water Strategy

The Storm Water Strategy is founded on the results of the Storm Water Strategic Initiative, which served to direct the SWRCB's role in storm water resources management. The Storm Water Strategy developed guiding principles to serve as the foundation of the storm water program; identified issues that support or inhibit the program from aligning with the guiding principles; and proposed and prioritized projects that the Water Boards could implement to address those issues. The SWRCB staff created a strategy-based document called the Strategy to Optimize Management of Storm Water (STORMS). STORMS includes a program vision, missions, goals, objectives, projects, timelines, and consideration of the most effective integration of project outcomes into the SWRCB's Storm Water Program.

California Integrated Waste Management Act (AB 939 and SB 1322)

The California Integrated Waste Management Act of 1989 (AB 939 and SB 1322) requires every city and county in the state to prepare a Source Reduction and Recycling Element to its Solid Waste Management Plan that identifies how each jurisdiction will meet the mandatory state waste diversion goals of 25% by 1995 and 50% by 2000. The purpose of AB 939 and SB 1322 is to "reduce, recycle, and re-use solid waste generated in the state to the maximum extent feasible." The term "integrated waste management" refers to the use of a variety of waste management practices to safely and effectively handle the municipal solid waste stream with the least adverse impact on human health and the environment. The Act has established a waste management hierarchy, as follows: Source Reduction; Recycling; Composting; Transformation; and Disposal.

SB 1374 (Construction and Demolition Waste Materials Diversion)

Senate Bill 1374 (SB 1374), Construction and Demolition Waste Materials Diversion Requirements, requires that jurisdictions summarize their progress realized in diverting construction and demolition waste from the waste stream in their annual AB 939 reports. SB 1374 required the CIWMB to adopt a model construction and demolition ordinance for voluntary implementation by local jurisdictions.

California Green Building Standards Code (CALGreen)

CALGreen requires the diversion of at least 50 percent of the construction waste generated during most new construction projects (CALGreen Sections 4.408 and 5.408) and some additions and alterations to nonresidential building projects.

CALGreen became mandatory on January 1, 2011. The 2012 Supplement became effective on July 1, 2012, the 2013 CALGreen became effective on January 1, 2014, and the 2016 CALGreen became effective on January 1, 2017.

As of January 1, 2017, in all jurisdictions including those without a construction and debris ordinance requiring the diversion of 65 percent of construction waste, the owners/builder of construction projects within the covered occupancies are required to divert 65 percent of the construction waste materials generated during the project. Additionally, CALGreen allows a disposal reduction option that can be met when the project's disposal rate is less than 2.0 pounds per square foot for non-residential and high rise residential, or less than 3.4 pounds per square foot for low-rise residential.

Local

4.18.2.2 Existing Conditions

Water Service

Potable Water

The City of Vernon is served by three water agencies. The majority of the City's water is provided by the City of Vernon's Water Department. The area north of the Los Angeles River and just west of Indiana Street is supplied by the California Water Service Company (Cal Water), East Los Angeles District. The small portion of Vernon south of the Los Angeles River and east of Atlantic Boulevard is serviced by Maywood Mutual Water Company Number 3. The Project would be served by the City of Vernon's Water Department.

The City's water distribution system consists of 250,000 linear feet of pipe, nine wells, seven ground-level reservoirs, one elevated tank, and a belowground reservoir. The total storage capacity is 16 million gallons. In addition, Vernon has a direct connection to the Metropolitan Water District (MWD). The MWD connection provides both a supplemental water source and an emergency supply in the event of a major power outage.

The Water Service Division serves more than 800 customers and distributes approximately 2.2 billion gallons of water annually. The majority of the water used in the City is supplied from the Water Service Division and is used by industrial businesses. There is currently very little residential or landscaping demand for water. The City of Vernon's water rates are amongst the lowest in the Los Angeles region, which provides the City a competitive advantage for industrial uses.

The water in Vernon is imported from the Central Basin Municipal Water District (CBMWD), and includes groundwater from the Central Basin, and recycled water for power generation from CBMWD. CBMWD provides recycled water from Los Angeles County Sanitation District's (LACSD) wastewater.

Wastewater

The City of Vernon owns its own sewage collection system, which discharges into system managed by LACSD. LACSD is a public agency created under State law to manage wastewater and solid waste on a regional scale. LACSD consists of 24 independent special districts across the County of Los Angeles. Vernon is located primarily in LACSD Districts No. 23, with small portions in Districts No. 1 and No. 2. These Districts are participants of a Joint Outfall Agreement, which provides for the operations and maintenance of an interconnected Joint Outfall System (JOS). The JOS utilizes seven treatment plants and over 1,200 miles of trunk sewers that provides regional wastewater treatment for Los Angeles County, covering an extensive area that includes 73 cities and unincorporated county territory. The City of Vernon is served by Joint Water Pollution Control Plant (JWPCP) in Carson, CA. The JWPCP is the hub of the JOS. It is the largest facility on the system. It provides centralized processing of solids removed during wastewater treatment for all of the JOS plants, producing electricity and reusable biosolids in the process.

Storm Drainage

The City's existing drainage system is comprised primarily of channelized creeks fed by surface runoff and underground storm drains. The City maintains the system within incorporated areas.

Storm drains throughout the city are used to collect rainwater and divert it, untreated, into the Delta. The City's storm drains do not connect to the sewer system, and all stormwater that flows into a storm drain system flows directly into the Delta. As discussed previously, The SFBRWQCB requires all municipalities within Contra Costa County (and the County itself) to develop restrictive surface water control standards for new development projects as part of the municipal regional NPDES Permit. Known as "Provision C.3," new development or redevelopment projects that disturb one or more acres of land area must contain and treat stormwater runoff from the site.

In the existing condition, stormwater discharges the site at two locations, one storm drain lateral located at the north end of the site, and secondly by overland flow from the low point of the site to the parcel to the east. The existing lateral located at the north end of the site will be reused. Given the extension of Golf Club Road, overland discharge from the site cannot be maintained and will be improved with a culvert undercrossing the proposed roadway to transmit flows to the east and match existing hydrology.

Solid Waste

The City and its businesses have contracts with various different waste haulers. These haulers utilize several different waste transfer stations within the region, which transport

the waste to two different landfills. The total daily capacity for the transfer stations serving the City of Vernon is 41,963 tons per day. Additionally, green waste, wood waste, compost, and mulch within the City are processed at Green Wise Soil Technologies. After solid waste and recycling are processed at the various waste transfer stations.

They are generally hauled to two landfills in the region: Sunshine Canyon Landfill in Sylmar, and the Simi Valley Landfill in Simi Valley. Additionally, a portion of green waste, wood waste, and compost in the City are processed at Green Wise Soil Technologies.

Electricity

The City of Vernon operates its own electrical service through the Vernon Public Utilities (VPU) Department. According to the VPU's 2023 Integrated Resource Plan, VPU serves approximately 2,000 mainly commercial and industrial customers and has a peak load of approximately 189 MW in the summer and 174 MW in the winter. Vernon system peak load is served in part by two generation facilities that are located within the VPU Department service territory: the Malburg Generating Station (MGS), a 139 MW natural gas-fired plant and two H. Gonzales units, a combined 11.5 MW natural gas plant. In addition to local generation, the VPU Department purchases energy to supply its 189 MW system demand from long-term agreements including the Palo Verde Nuclear Generating Station, Hoover Dam, solar generating facilities, landfill gas facilities, and from short-term power purchases. The VPU Department provides comparatively low-cost electrical power, giving industrial and commercial uses in the City a competitive advantage.

4.18.3 Environmental Impact Discussion

For purposes of analyzing potential utility related impacts, it is not necessary or prudent to separate the potential impacts of the VBGF and the GEP. Therefore, the following analysis uses the term "Project" which encompasses both construction and operation of the VBGF, the GEP and all related ancillary facilities.

4.18.3.1 Would 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

The Project would not require new or expansion of water, wastewater or stormwater drainage facilities. The primary delivery of potable water for the project would be made through connecting to an existing 12 inch main pipeline located adjacent to the site in East Vernon Avenue.

Wastewater will be interconnected to two existing main pipelines also located adjacent to the Site in East Vernon Avenue. Specifically, Building 1 will extend four (x4) 6-inch laterals to the existing 15-inch main and Building 2 will extend four (x4) 6-inch laterals to the existing 8-inch main. Both sewer mains are sized adequately for the GEP Site.

Stormwater drainage improvements will be on-site and discharged to the existing 15~18-in storm drain along East Vernon Ave at four outlets.

While the facility would require a new electrical interconnection to the VPU, the interconnection facilities are described in this SPPE application. As demonstrated in each subsection in this Section 4, these facilities do not result in significant impacts. (**Less Than Significant Impact)**

4.18.3.2 Would the project have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

As described in Section 2.3.11.1 the Project would use approximately 1.75 acre feet of water over the 16 month construction period. As described in Section 2.3.10.2 the Project would use approximately 9 AFY of potable water to include indoor uses, humidification and landscaping during operations. GIC Vernon has filed applications with the City of City to facilitate potable water service for the Project. The City has explained that it has sufficient capacity to serve the Project. GIC Vernon has requested a letter from the City demonstrating its ability to serve the Project potable water and when received they will be provided under separate cover. It should be noted that the Project does not need a Water Supply Assessment pursuant California Water Code Section 10910 because it does not meet any of the requirements outlined in California Water Code Section 10912.

Therefore the Project would have a sufficient water supply and would result in less than significant water supply related impacts. **(Less Than Significant Impact)**.

4.18.3.3 Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Wastewater from the Project would be collected by the City's local system of sewer lines and conveyed through regional trunk lines operated by LACSD. All of Vernon's wastewater is treated by the JWPCP, located at 24501 S Figueroa Street in the City of Carson. The JWPCP provides both primary and secondary treatment for approximately 260 million gallons of wastewater per day (MGD) and has a total permitted capacity of 400 MGD. Treated effluent is then discharged from JWPCP through an ocean outfall.

As described in Section 2.3.10.2 Table 2 the predicted wastewater flow from the Project would be approximately 5,750 gpd or approximately 0.0001 percent of the current JWPCP capacity. Therefore the Project will not result in a significant wastewater related impact. **(Less Than Significant Impact).**

4.18.3.4 Would 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?

Solid waste generated by the Project would be transported to Sunshine Canyon Landfill in Sylmar or the Simi Valley Landfill for disposal. The Sunshine Canyon Landfill has a has a max throughput capacity of 12,100 tons per day. The Sunshine Canyon Landfill has a permitted capacity of 140,900,000 cubic yards, with a remaining capacity of approximately 66,200,000 cubic yards. It is anticipated to be in operation until 2037[33]. The Simi Valley Landfill a has a max throughput capacity of 64,750 tons per week. The Simi Valley Landfill has a permitted capacity of 119,600,000 cubic yards, with a remaining capacity of approximately 79,783,835 cubic yards. It is anticipated to be in operation until 2063.[34]

Based on data from CalRecycle, a generic manufacturing/warehouse facility would generate approximately 1.42 pounds of solid waste per 100 square feet of building area per day.[35] Using this rate, the GEP would generate approximately 8.060 pounds of waste per day. This is a very conservative estimate and represents a diminish amount of additional waste to either the Simi Valley or Sunshine Canyon throughput.

Because the project can be served by a landfill with capacity and would not result in a significant increase in solid waste or recyclable materials, the project's impacts related to solid waste would be less than significant. **(Less than Significant Impact)**

4.18.3.5 Would the project be noncompliant with federal, state, and local management and reduction statutes and regulations related to solid waste?

The construction and operation of the project would comply with federal, state, and local regulations related to diversion of materials from disposal and appropriate disposal of solid waste. **(Less than Significant Impact)**

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[33] CalRecycle. SWIS Facility/Site Activity Details: Sunshine Canyon City/County Landfill (19-AA-2000). https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/259?siteID=4702

[34] CalRecycle. SWIS Facility/Site Activity Details: Simi Valley Landfill & Recycling Center (56-AA-0007). https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/608?siteID=3954

[35] CalRecycle. "Estimated Solid Waste Generation Rates". https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates

4.18.4 Project Design Measures

No mitigation measures are necessary because the project will not cause adverse effects on existing utilities and service systems.

4.18.5 Government Agencies

The City of Vernon has regulatory authority over the utilities and service systems analyzed in this section and will impose requirements as necessary as part of its permit review and implementation process.

4.19 WILDFIRE

4.19.1 CEQA Checklist

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with 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, would the project:				
1) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
2) 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?	☐	☐	☐	☒
3) 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?	☐	☐	☐	☒
4) 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?	☐	☐	☐	☒

4.19.2 Environmental Setting

The project site is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones.[36]

4.19.3 Environmental Impact Discussion

The project site is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones; therefore, the project would not result in wildfire impacts. **(No Impact)**

[36] Cal Fire, LRA Fire Hazard Severity Zone Maps, https://osfm.fire.ca.gov/what-we-do/community-wildfire-preparedness-and-mitigation/fire-hazard-severity-zones/fire-hazard-severity-zones-maps

SECTION 5.0 ALTERNATIVES

5.1 EVALUATION CRITERIA

The primary goal of the GEP is to be a state-of-the-art data center that provides greater than 99.999 percent availability (fine nines of availability). The GEP has been designed to reliably meet the increased demand of digital economy, its customers and its continued growth. The GEP's purpose is to provide its customers with mission critical space to support their servers, including space conditioning and a steady stream of high-quality power supply. Interruptions or poor quality of power could lead to server damage or corruption of the data and software stored on the servers by GIC Vernon's clients. The GEP will be supplied electricity by Vernon Public Utility (VPU) through a new Switching Station owned and operated by VPU constructed on the GEP site.

To ensure no interruption of electricity service to the servers housed in the GEP buildings, the servers will be connected to uninterruptible power supply (UPS) systems that store energy and provide instantaneous protection from input power interruptions. However, to provide electricity during a prolonged electricity interruption, the UPS systems will require a flexible and reliable backup power generation source to continue supplying steady power to the servers and other equipment. The VBGF provides that backup power generation source.

The GEP's Project Objectives are as follows:

- Develop a state-of-the-art data center large enough to meet projected growth;
- Develop the GEP on land that is zoned for data center use at the subject location and acceptable to City of Vernon;
- Incorporate the most reliable and flexible form of backup electric generating technology into the VBGF considering the following evaluation criteria.
    - **Reliability**. The selected backup electric generation technology must be extremely reliable in case of an emergency loss of electricity from the utility.
        - The VBGF must provide a higher availability than 99.999 percent in order for the GEP to achieve an overall reliability of equal to or greater than 99.999 percent availability at the critical load.
        - The VBGF must provide reliability to the greatest extent feasible during natural disasters including earthquakes.
        - The selected backup electric generation technology must have a proven built-in resilience so if any of the backup unit fails due to external or internal failure, the system will have redundancy to continue to operate without interruption.
        - The GEP must have on-site means to sustain power for 24-hours minimum in failure mode, inclusive of utility outage.

- **Commercial Availability and Feasibility**. The selected backup electric generation technology must currently be in use and proven as an accepted industry standard for technology sufficient to receive commercial guarantees in a form and amount acceptable to financing entities. It must be able to be permitted and operational within a reasonable timeframe .
- **Technical Feasibility**. The selected backup electric generation technology must utilize systems that are compatible with one another.

As part of the preliminary planning and design of the GEP and the VBGF, GIC Vernon considered alternatives to the proposed backup generators and use of a smaller capacity system. For completeness purposes, a discussion of the No Project Alternative is also included.

5.2 REDUCED CAPACITY SYSTEM

GIC Vernon considered a backup generating system with less emergency generators but like the No Project Alternative discussed below, any generating capacity less than the total demand of the data center at maximum occupancy would prevent GIC Vernon from providing the critical electricity that would be needed during an emergency. It is important to note that in addition to the electricity that is directly consumed by the servers themselves, the largest load of the data center is related to cooling the rooms where the servers are located. In order for the servers to function reliably, they must be kept within temperature tolerance ranges. The industry standard is to design and operate a building that can meet those ranges even during a loss of electricity provided by the existing electrical service provider. Therefore, in order for GIC Vernon to provide the reliability required by its clients it is necessary to provide a backup generating system that could meet the maximum load of the GEP during full occupancy and include redundancy as described in Section 2.2.3. A reduced capacity system would not fulfill the basic project objectives of the GEP.

5.3 BACKUP ELECTRIC GENERATION TECHNOLOGY ALTERNATIVES

GIC Vernon considered using potentially available alternative technologies: gas-fired turbines; flywheels; gas-fired reciprocating internal combustion engines, batteries; fuel cells; and alternative fuels. As discussed below, none of the technologies considered could meet the overall Project Objectives because they were commercially or technically infeasible and/or would not meet the necessary standard of reliability during an emergency. Furthermore, the local electrical service provider supplying the GEP with electricity does not allow alternative energy sources, which eliminates GIC Vernon's ability to supply the project with electricity from alternative technologies.

5.3.1 Flywheels

Flywheel energy storage systems use electric energy input which is stored in the form of kinetic energy. Kinetic energy can be described as “energy of motion,” in this case the motion of a spinning mass, called a rotor. The rotor spins in a nearly frictionless enclosure. When short-term backup power is required because utility power fluctuates or is lost, the inertia allows the rotor to continue spinning and the resulting kinetic energy is converted to electricity.

GIC Vernon has concluded that flywheel technology would not be a viable option and could not meet the Project Objectives for the following reasons:

- Flywheel technology does not perform within the required reliability levels of GIC Vernon and is prone to system failure.
- Flywheel technology requires an extensive amount of maintenance to keep each energy storage system functioning.
- Flywheel systems cannot provide sufficient time duration (e.g. 24 hours or more) as a backup generation as the fly wheel motion can typically only sustain 10-30sec outages at a time.

5.3.2 Gas-Fired Turbines

GIC Vernon considered using natural gas-fired turbines instead of diesel generators to supply backup power for the GEP. This technology option was rejected because it would not meet the project objectives. Natural gas turbines have the advantage of better emission of NOx and CO than diesel. However, as an emergency backup choice, it has the following deficiencies:

1) The gas infrastructure is more likely to experience fuel curtailments during natural disasters and other emergency loss of utility power than liquid fuel sources.
2) Onsite storage or delivery of natural gas to address the curtailment issues during an emergency is impossible to support long duration of backup (24 hours or longer time) due to the volume required.
3) The natural gas turbine is better suited for continuous operation instead of standby mode, which makes maintenance challenging.
4) The natural gas turbine needs minimum loads (30%), so additional load banks are required on site resulting in more use of fuel than is necessary and wasting of electricity through the load bank.
5) Typical turbine engines have larger system sizes (4MW-50MW), while the smaller ones such as micro-turbines of 2.5MW will use twice the physical footprint and cost twice as much as the proposed generation technology.

Therefore, natural gas turbines are not considered reliable enough to meet the extremely high reliability requirements of a mission critical data center like the GEP. A fixed fuel source such as a natural gas pipeline introduces another potential point of failure or load curtailment. Taking into account the natural gas outages from maintenance and repair by

the utility, interruption due to construction accidents within the system, long-term damage and interruption during an earthquake, or outages caused by problems within the greater distribution system are higher probability occurrences than being able to obtain diesel fuel for longer than 24 hour outages. Therefore, this alternative was rejected as not being able to meet the Project Objectives.

5.3.3 Gas-Fired Reciprocating Engines

GIC Vernon considered using natural gas-fired reciprocating engines instead of diesel generators to supply emergency backup power for the GEP. This technology option was rejected because it would not meet the Project Objectives. While natural gas engines could achieve start up times sufficient to work with the UPS systems design and there are 2.5MW/3.0MW engines available, they lack sufficient resilience to accept large block transfer of load associated with restart sequences when transferring from utility grid to backup generation. Therefore, natural gas reciprocating engines are not considered technically feasible or reliable enough to meet the industry standard or needs of the GEP. As discussed above, storage of sufficient natural gas on site to maintain emergency backup electricity demands of the GEP during an outage would not be tenable given the volume of natural gas that would be required.

5.3.4 Battery Storage

GIC Vernon considered using batteries alone as a source of emergency backup power. The primary reason batteries alone were rejected was the limited duration of battery power. Batteries can provide uninterrupted power for critical loads, which is the reason GIC Vernon has incorporated them into the overall backup electrical system design through the use of the UPS. As described in Section 2.2.4.2, batteries in the UPS System would be initiated at the first sign of electricity interruption. However, batteries is only designed to ride through short interruption of power such as during loss of utility and standby generator start. Maximum discharging time is about 5 minutes . In addition, Lithium-ion batteries have more restrictive California fire code regulations. Renewable non-Lithium-ion batteries such as ZnMnO2 are not commercially feasible for data centers yet. Once the standalone batteries are completely discharged, the only way they can be recharged without onsite generation is if the utility electrical system is back up and running. Since it is not possible to predict the duration of an electricity outage, batteries are not a viable option for emergency electrical power. Therefore, because battery storage cannot provide the duration that may be necessary during an emergency, this technology option alone was rejected as technically and commercially infeasible and unable to allow the GEP to meet its Project Objectives.

The proposed diesel generators provide 24 hours of backup electricity without the need for refueling. In order to provide for the same 24-hour capacity, approximately 10 ISO

containers representing approximately 10 times the amount of real estate would be required. The site will not accommodate the amount of batteries necessary.

5.3.5 Fuel Cells – Backup Replacement

GIC Vernon considered the use of fuel cells to provide emergency backup power for the GEP. Fuel cells can provide both primary and off grid power. The fuel cells utilized by Bloom Energy and others are Solid Oxide Fuel Cells (SOFC) that operate in high temperature of 750 Deg C, and they need to stay hot to provide power. As a choice of backup, fuel cells need to run continuously in dual modes, as a primary source, or a standby mode when the grid is off (islanding mode). The fuel cells have additional ultra-capacitors to cope with the 10-20 second load transfer time to match up with diesel generation technology.

The fuel cell has the following technical issues that negatively affect its ability to be utilized as an emergency backup generation option.

1) It needs to run continuously to provide base load electricity to stay hot. This is why large data centers (Equinix, Apple, Yahoo) use Bloom Energy as primary source and maintain their existing emergency diesel generation fleet as backup.
2) Fuel cells require approximately three (3) times more space than the emergency generators proposed for the VBGF and stacking is challenging and difficult and expensive to design to applicable codes.
3) Fuel cells rely on natural gas as feed stock, so the issues with natural gas infrastructure and onsite storage described above also limit reliability.

There are fuel cell technologies (Proton Exchange Membrane) that utilize liquid hydrogen as a fuel. This type of fuel cell is mostly used for mobile sources and can start cold quicker similar to a combustion engine. GIC Vernon understands that there are pilot programs to scale this type of fuel cell to larger sizes. However, the issues that negatively affect the Project Objectives of this technology include:

1) The technology is not yet commercially available at sizes necessary for a large data center.
2) The footprint is projected to be about twice the size of the proposed emergency generators.
3) Onsite storage of 24 hours of liquid hydrogen will take significant additional space not available at the site.
4) The potential for on-site and offsite impacts of a large release of liquid hydrogen which would be stored at pressure (6000 PSI) at the project site would be likely unacceptable within the City of Vernon and liquid hydrogen is not as readily available as renewable diesel or CARB diesel when needed during an emergency.

5.3.6 Fuel Cells – Primary Generation/Grid Backup

GIC Vernon has evaluated generating primary electricity with fuel cells on-site and relying on the electricity grid for emergency backup electricity. One example of primary power is that [Equinix has partnered with Bloom Energy over the last 5 years to deploy over 45 MW of fuel cell technology at various sites around the country using fuel cells as base load. There are other sites, such as Home Depot where Bloom Energy fuel cells provide primary electricity. However, we are unaware of any data center fuel cell application where fuel cells provide the full electricity needs for the data center without the bulk of the primary power being delivered by a utility.

There are two primary reasons that this solution cannot achieve the Project Objectives. The first is that it is unlikely that VPU would procure and reserve the amount of electricity necessary to power the GEP in perpetuity as a backup source on a moment's notice. The magnitude of electricity for such an event after full buildout of the GEP would render such an option infeasible.

As currently designed, the VBGF will provide an N+3 protection scheme for the GEP. In other words, the primary electricity will be provided by the extremely reliable VPU electric system and if that system fails, the diesel-fired emergency generators would provide the electricity that the GEP requires. Utilizing fuel cells as the primary generation and relying on the grid as backup in the event or fuel cell failure would also provide a N+1 protection scheme. However, this alternative would provide lower reliability during an earthquake – the governing design natural disaster for California projects. During an earthquake, it is possible that the natural gas system cannot deliver the fuel to the fuel cells at the same time as the VPU electrical system is experiencing an outage. In that case, in order to provide the same reliability as the proposed design, emergency backup generators would still be necessary with a quantity equal to N+3 to provide electricity to the GEP during the design natural disaster case. Therefore, in order to have the same reliability, the same number and size of emergency backup generators would be required.

Therefore, the use of fuel cells as primary generation would not replace the proposed emergency backup generators in order to meet the Project Objectives.

SECTION 6.0 AGENCY AND CONTACT INFORMATION

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SECTION 7.0 NOTIFICATION LIST

Appendix I provides a list of site addresses including owner's addresses if different from the site address with a 1000 feet radius of the site and 500 feet on either side of the proposed alternate transmission line routes provided by City of Vernon.