6.0 Other CEQA Requirements

6.1 Significant Environmental Effects Which Cannot Be Avoided if the Project Is Implemented.

Significant and Unavoidable Impacts

The proposed Project would result in the following significant and unavoidable (Class I) impacts:

Accidental Spill

Impact BIO-1: Unanticipated direct effects to special-status species, habitat, vegetation communities, and CDFW and USFWS jurisdictional resources both in and outside of the development footprint could occur during the operation phase in the event of an oil or other hazardous material spill from Project transport trucks, pipelines, or oil production facilities. Potential spills could result from seismic events, mechanical failure, structural failure, corrosion, or human error during operations. Spills and cleanup activities would potentially result in impacts to biological resources, including sensitive California tiger salamander (CTS) and California red-legged frog (CRLF) upland or breeding habitat, rare plant habitat, and other special-status species habitat. Small leaks or spills, which are contained and remediated quickly, may have minor or negligible impacts to biological resources. In contrast, large pipeline spills could spread into sensitive habitats (i.e., ephemeral drainages and agricultural ponds which contain sensitive species habitat) and would substantially degrade their value, with potential long-term impacts to biological resources.

Impact SGW-1: Oil and produced water spills, and associated contaminated stormwater runoff, could effect on and/or offsite surface waters and groundwater, depending on the location and size of the spill. Unanticipated direct effects to jurisdictional surface water resources (e.g., drainages) and groundwater both in and outside of the development footprint could occur during the operation phase in the event of an accidental oil, produced water, or other hazardous material spill from Project transport trucks, pipelines, or oil production facilities. Spills and cleanup activities would potentially result in impacts to surface water resources, including sensitive CTS and CRLF breeding habitat (ponds). Small leaks or spills, which are contained and remediated quickly, may have minor or negligible impacts to hydrological resources (see Impact SGW-2). In contrast, large spills could spread into jurisdictional waterways, including sensitive habitats (i.e., ephemeral drainages and agricultural ponds which contain sensitive species habitat) and would substantially degrade their value, with potential long-term impacts to surface and groundwater quality.

Available Mitigation

Impacts to biological and/or hydrological resources from an oil or other hazardous material spill associated with the Project could be significant, should they occur. Mitigation Measure BIO-1, requires development and implementation of an Emergency Response Action Plan to mitigate impacts to biological and hydrological resources in the event of an oil or other hazardous materials spill (including any seeps or surface expressions). The Plan would include specific measures to avoid impacts to native vegetation and wildlife habitats, plant and animal species, and environmentally sensitive habitat areas and jurisdictional waterways during spill response and cleanup operations, including provisions for containment and cleanup downstream of the spill site. The Plan would also include low-impact techniques for clean-up operations designed to minimize further damage to sensitive habitats and jurisdictional waterways. The Plan would describe stipulations for site-specific habitat restoration following initial clean-up, and

procedures for treatment of any oiled wildlife. Implementation of this measure would reduce impacts from oil or other hazardous materials spills; however, the potential remains for a catastrophic spill and the associated substantial environmental effects of the spill and its clean-up. Even with implementation of mitigation, Impacts BIO-1 and SGW-1 remain significant and unavoidable (Class I).

Loss of Oak Woodlands

Impact BIO-4. The proposed removal of coast live oak trees would result in significant oak tree and oak woodland habitat loss. Oak trees are very slow to regenerate, especially in areas of low annual rainfall. Oak restoration efforts have been challenging across the state and it is not an easy or guaranteed endeavor. Even with tree replacement and the proposed conservation easement, there is a temporal habitat loss that would take several decades, and possibly longer, to replace the habitat value and ecological functions that would be lost to proposed Project development. Some habitat components of mature woodlands, such as large tree cavities suitable for mammal dens or owl nests, may take even longer to replace. The Applicant proposes to remove 1,004 trees (13.4 acres of oak woodland) during the first year and to remove the remaining 496 trees (8.3 acres of oak woodland) during the seventh year. If construction and restoration efforts began in 2018 and were successful, the loss of these oak woodlands would largely be replaced by about 2050 or later. However, there are many uncertainties in a long-term restoration project, such as climate change, disease, or fire, that may make efforts more difficult in the future.

Available Mitigation

Implementation of recommended Mitigation Measures BIO-16a through BIO-16d would reduce impacts to oak trees and sensitive species habitat; however, even with implementation of available feasible mitigation identified here, there would be a significant degradation and loss of oak trees and oak woodland habitat with the removal of 1,500 oak trees totaling 29.2 acres of oak woodland. In addition, there would be a significant net temporal loss and permanent change in the extent and functional value of oak woodland communities. Therefore, this impact remains significant and unavoidable (Class I).

6.2 Irreversible/Irretrievable Commitment of Resources, Short and Long-Term Uses of the Environment

According to the California Environmental Quality Act (CEQA) Guidelines Section 15126.2(c), "[u]ses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely." Both primary and secondary impacts generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with a project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified. Therefore, the purpose of this analysis is to identify any significant irreversible environmental effects of project implementation that cannot be avoided.

Primary impacts would result from the consumption of non-renewable resources during construction and operation of the proposed Project. Non-renewable petroleum fossil fuel resources, as well as sand, gravel, steel, and some renewable resources such as lumber would be consumed and irreversibly committed during Project construction and operations. Construction of the Project would consume: limited amounts of certain types of lumber; other raw materials in steel, metals such as copper and lead; aggregate materials used in concrete and asphalt such as sand, stone and water; petrochemical products such as plastic; petroleum-based construction materials, and other similar nonrenewable resources. Additionally,

fossil fuels for construction vehicles and equipment would be consumed. In terms of project operations, the following nonrenewable resources would be required: fossil fuels, primarily natural gas and oil; electricity produced from fossil fuels; and water along with some aggregate materials used in concrete and asphalt. The consumption of such resources would represent a long-term commitment of those resources.

The primary objective of the proposed Project is to re-establish crude oil production at the East Cat Canyon Oil Field. The produced oil from the proposed Project would be fed into to California's refineries and refined into transportation fuels such as gasoline, diesel, jet fuel, and other petroleum-based end use products (lubricants, asphalt, or synthetic materials). The produced oil would serve a large and existing demand for petroleum products in California. As a result, once the proposed Project produced crude oil reaches the California market and is consumed, it will be irretrievable.

Upon depletion of the East Cat Canyon reserves, as limited by current steam injection technology and economic considerations, the oil and gas leases would eventually be terminated, wells would be abandoned and the surface facility sites restored. Habitats could be restored to pre-project conditions and/or other land uses developed. Land uses after oil and gas production has permanently ceased would be subject to regulations at the time. Given the 30 to 50 years or more life span for the proposed Project, identification of specific potential future uses of the East Cat Canyon area would be speculative at this time.

6.3 Energy Conservation

CEQA requires a discussion of the potential energy impacts of a project where there is a possibility of "wasteful, inefficient, and unnecessary consumption of energy" (Public Resources Code Section 21100(b)(3)). Appendix F of the State CEQA Guidelines specifically requires consideration of any potentially significant energy implications of a project in an EIR and directs Lead Agencies to adhere to the goal of conserving energy, through the following means:

- Decreasing overall per capita energy consumption;
- Decreasing reliance on fossil fuels such as coal, natural gas and oil; and
- Increasing reliance on renewable energy sources.

Lead agency actions that are consistent with these goals would not be likely to cause an energy-related impact. For this analysis, an impact related to energy conservation would be considered potentially significant if the project would cause inefficient, wasteful, and unnecessary consumption of energy.

California energy consumption and reliance on fossil fuels. California has the greatest total energy demand of any U.S. state except Texas. Based on data from the U.S. Energy Information Administration (EIA), consumption of overall energy in California outweighs in-state production by about three-to-one (EIA, 2016)[1] even though California produces about 6 percent of total U.S. crude oil production. Due to this imbalance, oil and gas produced inside California is mostly for use in California and in response to demand for energy by California end-use customers.

California's in-state production and overall use of crude oil are declining, but California refineries continue to rely on foreign sources of crude for more than half of their supply. According to the California Energy Commission's latest Integrated Energy Policy Report (CEC, 2018), in 2016 California's refineries processed about 1.6 million barrels of crude oil per day. Although California is a net exporter of some refined

[1] U.S. Energy Information Administration. http://www.eia.gov/state/analysis.cfm?sid=CA.

products, in 2016 California consumed nearly 1.5 million barrels per day of gasoline, diesel, and jet fuel. Over half of the products produced by California's refineries are California-compliant gasoline or diesel for exclusive in-state use, and less than half of the products are other fuels, such as jet fuel, fuel oils, or export gasoline and other refined products like petroleum coke (CEC, 2018).

California is implementing and will continue to implement numerous State laws, policies, and programs designed to reduce energy use, and specifically to reduce the demand and need for conventional energy from oil and gas resources. Because of the mild climate and aggressive efficiency programs, and alternative energy supplies, there is limited growth in California's total energy demand. Increasing the in-state production of crude oil generally avoids the need to import an equivalent volume of crude oil supplies from elsewhere by rail or marine tanker ships.

Discussion of Potential Energy Impacts. This analysis addresses the following types of potential energy-related impacts, which are outlined in Appendix F of the State CEQA Guidelines:

- **Would the project result in substantial new energy requirements or significant energy use inefficiencies for any stage of project construction, operation, maintenance, and/or removal?** The global supplies of oil and gas used in California, and those produced in California vary widely in terms of energy-intensity. Because of the wide range of diversity in crude supplies, lower or higher levels of overall energy could be expended if alternative supplies of crude oil are produced elsewhere in-state or imported to California (Brandt, 2015; Carnegie, 2017). The proposed Project would increase the capability of producing crude oil from an established in-State oil field. This could offset the need to import a comparable volume of crude oil from an alternative supply and would not result in substantial new energy requirements.
- **Would the project cause a significant adverse effect on local and regional energy supplies and on requirements for additional capacity?** The proposed Project would consume fossil fuels and electricity, but would not be expected to exceed local capacity to meet the demand for this energy.
- **Would the project cause a significant adverse effect on peak and base period demands for electricity and other forms of energy?** There would be no notable change in demand for peak-period or base period electricity from the grid that would occur as a result of the proposed Project.
- **Would the project disrupt compliance with existing energy standards?** The physical activities associated with the proposed Project would increase the supply of oil and gas resources in a way that that coexists with California's existing programs promoting energy conservation. Energy used for the proposed Project would be subject to California's existing energy conservation programs, and the resulting crude oil production would not disrupt compliance with existing energy standards or have any adverse effect on potential compliance with energy conservation standards.
- **Would the project cause a significant adverse effect on energy resources?** The proposed Project would increase the capability of producing crude oil from an established oil field. The proposed Project would not cause an adverse effect due to inefficient, wasteful, or unnecessary energy use.
- **Would the project result in significant adverse effects related to transportation energy use, including the project's projected energy use requirements and its overall use of efficient transportation alternatives?** California's demand for transportation fuels exceeds the amount of fuel that can be refined from hydrocarbon resources produced inside the State. As a result, most of California's in-State production of crude oil goes to serving California's demand. This analysis does not speculate on whether project-related crude oil production could translate to an overall net increase in demand or create higher levels of consumption by end users. The proposed Project would result in development of hydrocarbon resources from an established in-State oil field and would reduce the State's reliance on

crude oil from elsewhere. The proposed Project would not cause an adverse effect due to inefficient, wasteful, or unnecessary transportation fuel use.

6.4 Growth Inducement

Section 15126.2(d) of the State CEQA Guidelines states that growth-inducing impacts of the proposed Project must be discussed in the EIR. In general terms, a project may induce spatial, economic, or population growth in a geographic area if it meets any one of the four criteria identified below:

- Removal of an impediment to growth, e.g., establishment of an essential public service or the provisions of new access to an area;
- Economic expansion or growth, e.g., changes in revenue base or employment expansion;
- Establishment of a precedent-setting action, e.g., an innovation, a change in zoning, or general plan amendment approval; or
- Development or encroachment in an isolated area or one adjacent to open space (being different from an "infill" type of project).

Should a project meet any one of the criteria listed above, it can be considered growth-inducing. The impacts of the proposed Project are evaluated below with regard to these four growth-inducing criteria.

Removal of an impediment to growth. The proposed Project would allow for the development of new thermal wells and supporting infrastructure, as well as the construction of a new natural gas pipeline within the area of the East Cat Canyon Oil Field. The proposed Project would not result in the establishment of an essential public service, and it would not provide new access to an area previously inaccessible. As a result, the project is not considered to cause significant growth inducement under this criterion.

Economic expansion or growth. Short-term economic growth has the potential to occur in northern Santa Barbara County during the construction phase of the proposed Project with increased employment of construction workers and associated support services. At full buildout (Phase II), the operational aspects of the Project would require a total of 115 personnel. Employees are anticipated to be drawn from the local area, so the Project would result in increased employment in the area. No expansion of existing refineries or crude oil markets is proposed to accommodate the increased Project production. However, increased crude production levels resulting from the proposed Project may contribute to an increase in the revenue base for the State of California and the County of Santa Barbara through tax revenues. Economic growth associated with the proposed Project is not considered to be significant.

Establishment of a precedent-setting action. The proposed Project would result in additional well development within the existing East Cat Canyon Oil Field within existing developed mineral leases, which have historically been used for oil and gas production for over 100 years. This type of development continues the development of oil and gas in areas previously established for this use. The Project would not establish a precedent-setting action such as a change in zoning or an innovation. Therefore, the proposed Project is not considered to be growth inducing under this criterion.

Development or encroachment in an isolated area or one adjacent to open space. The proposed Project would result in additional well development within the existing East Cat Canyon Oil Field within existing and previously developed mineral leases, which have historically been used for oil and gas production for over 100 years. Therefore, the proposed Project would not result in development or encroachment within an isolated area or one adjacent to open space and is not considered to be growth inducing under this criterion.

6.5 Effects Found not to be Significant

As discussed in Section 1.0, Introduction, Santa Barbara County, as lead agency under the California Environmental Quality Act (CEQA), determined than an EIR would be required as part of the permitting process for the proposed Project. In compliance with CEQA Guidelines, the County solicited public and agency input through distribution of a Notice of Preparation (NOP) and a public scoping meeting, and conducted an independent analysis of possible project impacts. Sections 4.2 through 4.10 provide an analysis of the proposed Project for those issues areas that were anticipated to have possible significant impacts. This Section provides an assessment of those issue areas where no significant impacts would occur.

- **Aesthetics/Visual Resources.** Project activities would take place primarily within an existing oil field, and surrounding topography and vegetation would largely shield the Project site. Construction impacts would be temporary, but the proposed central processing facility and production site office would be visible from portions of Cat Canyon Road. Nighttime lighting would be used during well operations to ensure safe working conditions and the top of the derricks will have red beacons to address potential aviation hazards. Approximately five structures would likely be set either between or in place of the existing alignment along the Sisquoc–Santa Ynez 115 kV Power Line. Of those 10 poles, approximately 5 structures would be installed along the new 115 kV power line tap to the proposed Aera-owned 115/12.47 kV substation. These poles would likely be a combination of tubular steel poles and light duty steel poles. Underground installation is proposed for the new 8-inch natural gas pipeline.

  To reduce operational visual impacts, the Aera has included Project-incorporated Applicant Avoidance and Minimization Measures in its application. These relate to design of permanent facilities so as to blend with the natural environment, landscaping (in accordance with the County's Comprehensive Plan), and night lighting and glare. It is anticipated that implementation of these measures would ensure that visual impacts from the Project would be less than significant. The new 115 kV transmission poles (approximately 10 total) would be of similar height to poles along the existing Sisquoc Santa-Ynez 115 kV line. Further, five of these poles would be interset along the existing line, with the remaining 5 creating the new 115 kV power line tap. Given the existing power line and few number of new poles creating the new tap, these additional poles and conductor would not create a significant visual impact compared to existing conditions. All visual impacts from the Project would be less than significant.

- **Agricultural Resources.** The Project site currently is zoned and designated for agricultural uses, and historically has been used concurrently for oil production and agricultural grazing. The Applicant has stated that it plans to continue existing grazing on the property during Project construction and operations. Construction of the new facilities (e.g., processing facilities, well pads, roadways, etc.) would require some permanent conversion of lands; however, this land is not currently used for grazing and much of the area proposed for development has been disturbed previously during historic operations of the oil field. The proposed site does not contain any Prime Farmland or other areas identified as farmland of State or Local Importance by the State Farmland Mapping and Monitoring Program or have land under Williamson Act contract. Two parcels are under an Agricultural Preserve Contract, but development on these parcels would be limited to an existing freshwater supply well. Any potential impacts to agricultural lands along the natural gas pipeline alignment would occur only during construction as a result of temporary ingress/egress limitations to agricultural operations due to construction equipment and would be temporary. Therefore, impacts to agricultural resources are expected to be less than significant.

- **Energy.** The proposed Project is intended to develop remaining recoverable oil resources within the east area of the existing Cat Canyon Oil Field and to provide an in-State supply of oil. Construction and

drilling would require use of energy to operate equipment. During field operations, natural gas produced and used onsite would be supplemented via a proposed 8-inch pipeline from SoCalGas. Electricity would be supplied on PG&E's distribution system via the new 115 kV transmission line and substation. The proposed Project is not expected to result in a substantial increase in energy demand or cause the need for development of new sources of energy. Emissions related to the use of energy, including oil and gas resources and electricity, are addressed in Section 4.2, Air Quality and Section 4.4, Climate Change/GHG Emissions.

- **Land Use/Growth Inducement.** There are 48 known residences, a winery tasting room, and an office within one mile of the Project site in the east area of the Cat Canyon Oil Field. The proposed well pads would be located primarily on areas previously disturbed and used for this purpose. Given the oil field's rural location surrounded by existing oil and gas development and that the Project would not physically divide an established community, land use impacts associated with the oil field and transmission line operations are expected to be less than significant. The proposed natural gas pipeline would traverse rural, agricultural, commercial, and residential land uses. Temporary, but less than significant impacts would occur to these land uses during construction. Risks associated with the natural gas pipeline during operation are addressed in Section 4.7 Hazardous Materials/Risk of Upset. Refer to Section 4.11, Land Use/Policy Consistency, for a summary of the proposed Project's potential consistency with adopted plans and policies of the County's Comprehensive Plan and Land Use Development Code.
- **Public Facilities.** At full buildout (Phase II), the operational aspects of the Project would require a total of 115 personnel. Assuming that all permanent and contractor personnel would be drawn from the local population and/or areas within a reasonable commuting distance of the Project site, no net-increase in population growth would occur. Therefore, the proposed Project would not be expected to trigger a significant increase in demand for public services, such as fire and police protection, parks, schools, or other public facilities.
- **Recreation.** The proposed oil field development area is private property that is not designed or used for public recreation and the proposed natural gas pipeline does not traverse or run adjacent to any public recreation facilities. As discussed under Public Facilities, the proposed redevelopment would not be expected to result in an increase in population that would increase the use or deterioration of existing parks or recreational facilities in the area. Impacts to recreation are anticipated to be less than significant.

6.6 Electric and Magnetic Fields

Recognizing that there is a great deal of public interest and concern regarding potential health effects from exposure to electric and magnetic fields (EMF) from power lines, this document provides information regarding EMF associated with electric utility facilities and the potential effects of the electrical transmission interconnection component of the proposed Project related to public health and safety.

Potential health effects from exposure to electric fields from power lines (produced by the existence of an electric charge, such as an electron, ion, or proton, in the volume of space or medium that surrounds it); however, are typically not of concern since electric fields are effectively shielded by materials such as trees, walls, etc. Therefore, the majority of the following information related to EMF focuses primarily on exposure to magnetic fields (invisible fields created by moving charges) from power lines. This EIR does not consider magnetic fields in the context of CEQA and determination of environmental impact because (a) there is no agreement among scientists that EMF does create a potential health risk, and therefore, (b) there are no defined or adopted CEQA standards for defining health risk from EMF. As a result, EMF information is presented for the benefit of the public and decision makers.

After several decades of study regarding potential public health risks from exposure to power line EMF, research results remains inconclusive. Several national and international panels have conducted reviews of data from multiple studies and state that there is not sufficient evidence to conclude that EMF causes cancer. The International Agency for Research on Cancer (IARC), an agency of the World Health Organization (WHO), and the California Department of Health Services (DHS) both classified EMF as a *possible* carcinogen (WHO, 2001; DHS, 2002).

In addition, the 2007 WHO [Environmental Health Criteria (EHC) 238] report concluded that:

- Evidence for a link between Extremely Low Frequency (50–60 Hz) magnetic fields and health risks is based on epidemiological studies demonstrating a consistent pattern of increased risk for childhood leukemia. However, "…virtually all of the laboratory evidence and the mechanistic evidence fail to support a relationship between low-level ELF magnetic fields and changes in biological function or disease status….the evidence is not strong enough to be considered causal but sufficiently strong to remain a concern."
- "For other diseases, there is inadequate or no evidence of health effects at low exposure levels."

Currently, there are no applicable regulations related to EMF levels from power lines or substations. However, following a decision from 1993 (D.93-11-013) that was reaffirmed on January 27, 2006 (D.06-01-042), the CPUC requires utilities to incorporate "low-cost" or "no-cost" measures to mitigate EMF from new or upgraded electrical utility facilities up to approximately 4 percent of total project cost. To comply, PG&E would incorporate such measures to reduce magnetic field levels in the vicinity of the proposed 115 kV power lines.