APPENDIX ELEC

ELECTRICAL SYSTEM FEASIBILITY REPORT

MAHA

Guenoc Valley

Electrical System Feasibility Report

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1.0 INTRODUCTION

1.1 Project Background

The Maha Resort at Guenoc Valley (the "Project") sits on approximately 16,000 acres and is three miles southeast of Middletown on the southeast border of Lake County (Project Site). The Project has applied to the County of Lake for a development application. Pursuant to the California Environmental Quality Act ("CEQA") the application will include an Environmental Impact Report ("EIR"). The EIR will include a programmatic analysis (the "Programmatic Review") of the impacts to rezone the 16,000-acre Guenoc Ranch to "Guenoc Valley District ("GVD")." In addition to the programmatic level EIR to allow the rezone, the EIR will include a detailed, Project level analysis (the "Project Level Review") of the impacts at a Project level of the proposed first phase of development ("First Phase"), submitted as the Specific Plan of Development ("SPOD").

The Programmatic Review of the overall Project will occur in the EIR to assess the environmental impacts of the entire Project Proposal. Project Level Review will analyze the specific objectives and environmental impacts of the proposed first phase, as outlined in the SPOD. The Project Level Review EIR will analyze the environmental changes caused by a development including the construction and operation, whereas the Programmatic Review EIR will look at the impacts of the rezone classification rather than a Project specific analysis. Future phases of development ("Future Phases") will require additional CEQA review. Therefore, this technical feasibility analysis is broken into two sections, the first section includes the First Phase Project level impacts and the second section analyzes the potential development within the new zoning classification GVD. Construction and operations impacts are analyzed in a separate report.

The Project requests a general plan amendment and a rezone classification in separate phases. For a breakdown of the development intentions between the Project's First Phase SPOD and Future Phases for allowed uses please see the following table with data obtained from the Notice of Preparation.[1]

Table 1: Unit Breakdown as per GVD Zoning Permitted Use Table[2]

Use	First Phase (qty)	Future Phases (qty)
Hotel Units	225	155
Resort Residential	144	260
Residential Estate Villa	411	989
Workforce Co-Housing Bedrooms	300	200

[1] http://www.lakecountyca.gov/Government/Directory/Community_Development/Planning/GuenocValley.htm Notice of Preparation dated April 23, 2019, Table 1, Primary Permitted Uses, accessed 7/8/2019.

[2] This report is analyzing the total allowable development; therefore, it is conservative as it analyzes a greater density than is proposed in the SPOD.

First Phase of Project: The First Phase of the Project includes the construction of the roads and the utility infrastructure, approximately 225 hotel rooms, 144 resort residential units, and 411 residential villas, 300 workforce and staff housing, and the accessory to resort commercial structures. The section of the report that discusses the electrical system feasibility of the First Phase analyzes the electrical system feasibility of the First Phase of the development as identified in the SPOD.

Future Phases of Project: The Future Phases of the Project, to the extent allowed as part of the GVD, includes up to 155 hotel rooms, 260 resort residential units, 989 residential estate villas, 200 workforce co-housing bedrooms, and accessory to resort commercial structures. Any development proposed as part of the Future Phases will require additional CEQA review. The section of the report that discusses the electrical system feasibility of Future Phases analyzes the electrical system feasibility of the Future Phases of the development as identified in the proposed GVD.

1.2 Technical Assistance Overview

Our technical feasibility study analyzes the electrical system infrastructure options for the Project. In completing this study, our goal was to provide current and accurate information on the best methodology and approaches to developing the electrical infrastructure for the Project, including options for utility services, generation technologies, distribution strategies and demand needs with a focus on complying with all applicable energy codes and providing a safe, resilient electrical infrastructure system for the Project.

This report summarizes our work tasks completed for this Project, and provides options for next steps towards development of the Project's electrical infrastructure. First, we provide our assessment of the Project's existing on-site electrical infrastructure, including the existing demand needs and electrical distribution system that serves the 16,000 acre property. Second, we broke our study into two parts to analyze the Project's electrical infrastructure needs for the First Phase and Future Phases of the Project. For the First Phase, we first provide a set of Project design issues that must be addressed at the Project, and then, we provide four options for the Project's electrical distribution services. The first distribution option, referred to herein as "Option 1," is full electric distribution service by Pacific Gas and Electric Company ("PG&E"). The second distribution option, referred to herein as "Option 2," is private ownership of electric distribution service to all commercial properties and infrastructure and PG&E electric distribution services to all residential lots. The third distribution option, referred to as "Option 3," is the option to create a "Public Utility District"[3] with the entire Project operated as an independent microgrid from PG&E. Community shared solar electric generation and battery storage systems[4] are presented in this report as an

[3] https://calafco.org/sites/default/files/documents/2016%20Formation%20Guide%20WEB.PDF, accessed 7/8/2019.
[4] https://ww2.energy.ca.gov/2018publications/CEC-400-2018-020/CEC-400-2018-020-CMF.pdf, page 42 accessed 7/25, 2019.

option to be considered in lieu of or in addition to roof mounted solar systems for the residential lots. Finally, a fourth option, referred to as "Option 4," is a hybrid of Options 2 and 3. Under this option, several privately owned solar plus storage micro-grids would be created to sell the electricity generated from those systems to the commercial lessors at the Project through traditional Power Purchase Agreements ("PPAs") until the formation of the Public Utility District is completed. Throughout this report in general, and specifically in discussing these Options in more detail in section 3.1.2, reference to Maha or the Developer will refer to either Maha or a third party independent power producer ("IPP") selected by Maha, where the IPP, rather than Maha, will create the Public Utility District and/or perform the power generation, delivery and distribution functions described in section 3.1.2, and elsewhere in this report.[5]

2.0 EXISTING POWER NEEDS & LOAD ANALYSIS

2.1 Existing Electrical Services & Infrastructure[6]

The First Phase of the Project's development area is made of 48 contiguous parcels all within Lake County. Electricity is a currently provided to the development area by PG&E from its substation in Middletown. There are two PG&E distribution circuits that provide overhead electricity to eleven (11) existing service points.[7] The existing electrical infrastructure located at the Project consists of service points, easements, distribution circuits, meters, poles and related infrastructure owned and operated by PG&E.

The existing service points include agricultural wells, pump stations and commercial structures served via overhead power lines that run through the Project. Power density is residential, low density rural residential.

The existing circuits that serve the Project are presented in the table below. Circuit 1102 enters the Project from the north and Circuit 1103 enters the Project from the west along Butts Canyon Road. Both circuits appear to merge at the north entry point enabling the circuits to back each other up via emergency switching procedures by PG&E.

[5] Maha is a real estate developer of resort, commercial and residential properties. It is actively reviewing the options that are the subject of this Report in order to provide a comprehensive electric infrastructure for the Project. Maha does not intend to become an electric utility subject to CPUC regulation, and will only perform such power supply and distribution services if it secures an appropriate ruling from the CPUC that such functions will not subject it to regulation as an electric utility under applicable California law. Otherwise, Maha intends to engage one or more IPPs and/or other third-party developer(s) with experience in solar power production, delivery and distribution, energy storage, micro-grids and/or Public Utility Districts, as applicable, to perform such functions for the Project.

[6] https://www.pge.com/b2b/energysupply/wholesaleelectricsuppliersolicitation/PVRFO/PVRAMMap/index.shtml, accessed 6/24/2019

[7] https://www.pge.com/b2b/energysupply/wholesaleelectricsuppliersolicitation/PVRFO/PVRAMMap/index.shtml, accessed 6/24/2019.

Table 2: Existing PG&E Circuits

Circuit	Transformer size (MVA)	Transformer demand (MVA)	Circuit Capacity (MVA)	Circuit Peak (MVA)
1102	19.20	9.54	12.19	9.72
1103	19.73	5.5	12.19	1.20

The existing PG&E services and infrastructure located on the Project's development area are as shown in Figure 1 below.

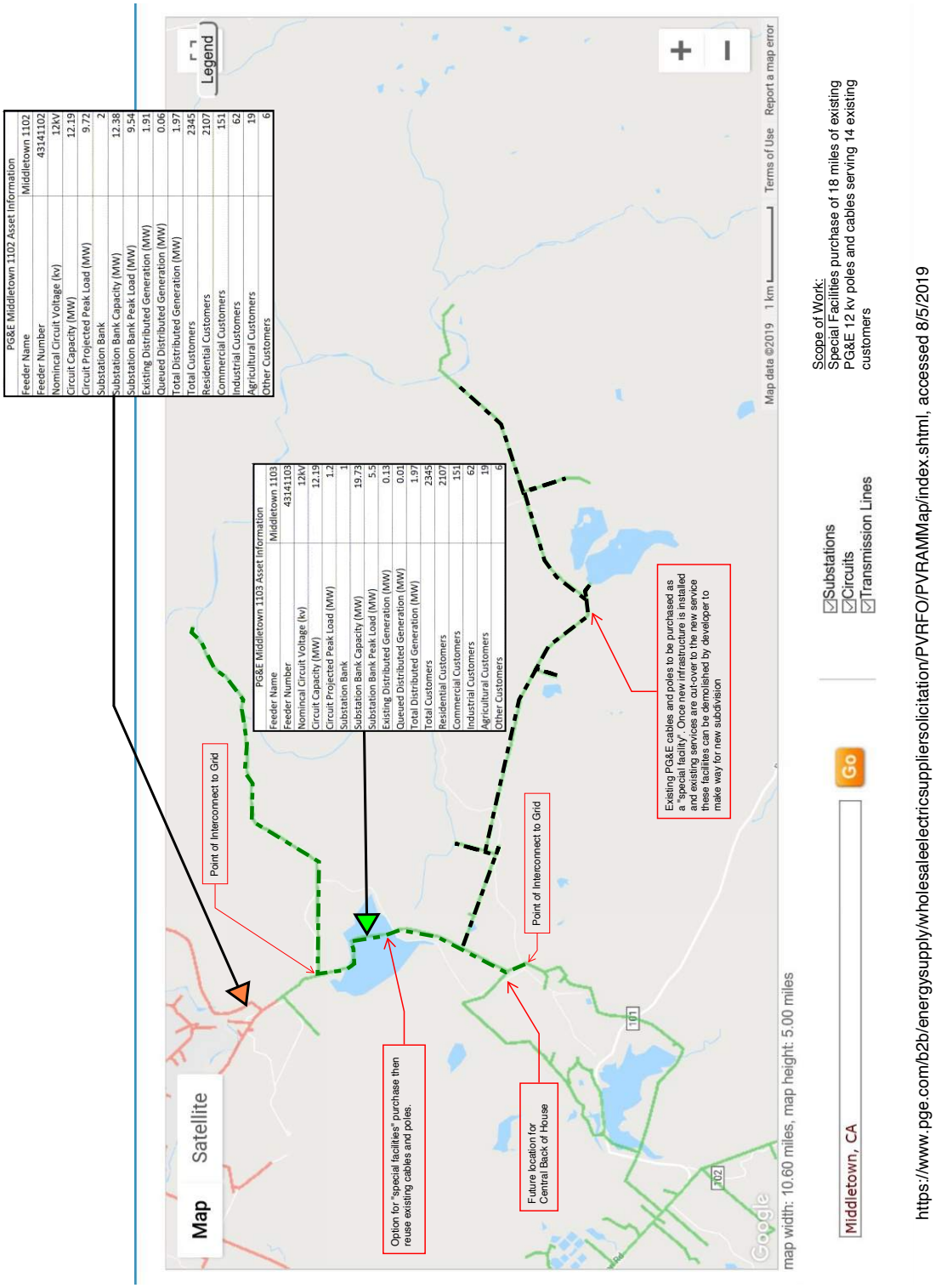

Figure 1. Existing PG&E Services

The existing electrical infrastructure on the Project's development area is all overhead.

2.2 Existing Energy Usage & Demands

The existing circuits serve a mix of customers as presented in Table 3 below.

Table 3: Existing PG&E Customers

Description	1102 circuit	1103 circuit
Residential Customers	2,107	104
Commercial Customers	151	27
Industrial Customers	62	5
Agricultural Customers	19	22
Other Customers	6	0
Total Customers	2,345	158

Based on publicly available PG&E data, Circuit 1103 has an approximate power density of 11 kva/Sq mile with existing energy use on the circuit estimated to be 266 MWh/year based on an average annual energy demand throughout the year of 30 KW. Circuit 1103 only services the Project Site and Circuit 1102 serves areas outside the Project Site. Circuit 1102 has a power density of approximately 900 kva/Sq mile with existing energy use on the circuit estimated to be 30,000 MWh/yr based on an average annual energy demand of 1 KW for each residence and 5.5 KW for each commercial, industrial, agricultural and other customer in the service area.

3 TECHNICAL FEASIBILITY OF ELECTRICAL SERVICE FOR PROJECT

3.1. Electrical Service Infrastructure for First Phase

3.1.1. Project Design Features

For the First Phase, the Project will reuse portions of the existing overhead utility services and provide new services throughout the Project, as required. The electrical infrastructure at the Project will change from all overhead distribution service to a mix of overhead and underground service where required in subdivisions and where necessary to maintain the aesthetic and fire prevention goals of the Project. Approximately 18 miles of existing PG&E 12 KV circuit will either be removed, reused or relocated. The Project proposes the installation of approximately 32 miles of new joint trench and underground electrical infrastructure in the Project's proposed subdivisions. Almost all of the Project's electrical utility routing will be installed with an underground joint trench alongside communications, and in some areas above ground routing may be utilized if aesthetically viable and not adjacent to flammable vegetation. All infrastructure is proposed within existing road corridors and the improvements will occur within the Project Site.

The Project proposes the installation of distributed energy resources[8] combined as an interconnected system of loads and resources, including, but not limited to, distributed energy resources, energy storage, demand response tools or other management, forecasting and analytical tool that can be managed and isolated to withstand larger disturbances and maintain electrical supply to connected critical infrastructure. A key feature of the Project's electrical infrastructure is to ensure the Project's microgrid and resiliency strategies support reliability in anticipation of potential outage events and wildfires.

The building design for facilities in the Primary Permitted Uses Table[9] will meet energy code requirements and endeavor to target between 18 kbtu/sf-yr for ground coupled heat pumps to 30 kbtu/sf-yr to minimize the demands on the systems.

For the most part infrastructure will largely be installed underground in the subdivisions and resort properties with design features that reflect the vision of the Project exceeding minimum safety and efficiency.

As required by California law, the Project will include either the installation of PV solar for every residential structure's needs either on the rooftops or through ground-mounted community solar systems. The installation of energy storage devices, with a range of battery types is being considered, at every location where PV solar is installed. Eleven existing PG&E service points currently exist that can be utilized for development of the electrical infrastructure at the Project. The relocation of existing PG&E easements and poles is expected.

Electrical needs for services that are directly located on Butts Canyon Road such as entrance features, streetlights or any developments proposed adjacent to Butts Canyon Road will be individual service delivery points[10] off the PG&E system. For these individual areas any solar systems would either be roof or ground mounted and interconnected at the Service Delivery Points.

Substations and points of interconnect to PG&E will be determined by the Distribution Option selected in section 3.1.2 below. Electrical infrastructure will be routed in or along existing and/or newly developed roadways.

The following tables identifies the infrastructure systems that are part of the First Phase energy usage and demand analysis.

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[8] "Distributed energy resource" means an electrical generation or storage technology that complies with the emissions standards adopted by the State Air Resource Board pursuant to the distributed generation certification program requirements of Section 94203 of Title 17 of the California Code of Regulations, or any successor regulation.

[9] http://www.lakecountyca.gov/Government/Directory/Community_Development/Planning/GuenocValley.htm Notice of Preparation dated April 23, 2019, Table 1, Primary Permitted Uses, accessed 7/8/2019.

[10] https://www.pge.com/tariffs/assets/pdf/tariffbook/ELEC_RULES_2.pdf, accessed 7/8/2019.

Table 4: First Phase Infrastructure Systems

Quantity	Description
24	Wastewater Treatment Facilities with back-up generators[11]
16	Water Systems with back-up generators[12]
3	Main Point of Entry to IT Carriers with back-up generators[13]
11	IT Area Distribution Facilities with back-up generators
4	Cellular/Radio Towers with back-up generators
1	Emergency Communication Systems
1	Centralized Fire Camera System
1	Centralized Alert (Nixle) System
9	Water Features and pools at 9 locations
500	Streetlight and pathway lighting
384	Public Area EV Chargers

3.1.2. Distribution Options

In addition to the Project design features described above, four options to meet the distribution requirements for First Phase of the Project are described in this section of the report and summarized in the table below[14].

Table 5: Summary of Options

Description	Distribution	Service Extensions	Responsible Party
Option 1	PG&E	PG&E	PG&E
Option 2	PG&E and Maha	PG&E and Maha	PG&E and Maha
Option 3	PG&E and Maha	Maha	PG&E and Maha
Option 4	PG&E and Maha	Maha	PG&E and Maha

Option 1

In this option, the Project's current utility provider, PG&E, would provide the

[11] http://www.lakecountyca.gov/Assets/Departments/CDD/Planning/Docs/Guenoc/Maha+SPOD.pdf, page 119 Wastewater Service Areas, accessed 7/8/2019.
[12] http://www.lakecountyca.gov/Assets/Departments/CDD/Planning/Docs/Guenoc/Maha+SPOD.pdf, page 113 Water Management Areas, accessed 7/8/2019.
[13] http://www.lakecountyca.gov/Assets/Departments/CDD/Planning/Docs/Guenoc/Maha+SPOD.pdf, page 141 Communications Proposed IT Network, accessed 7/8/2019.

[14] *See* p. 5, note 5, clarifying that references to functions to be performed by Maha in this section 3.1.2 may be performed by an IPP selected by Maha to perform the solar generation, delivery and distributions functions referenced in this Report.

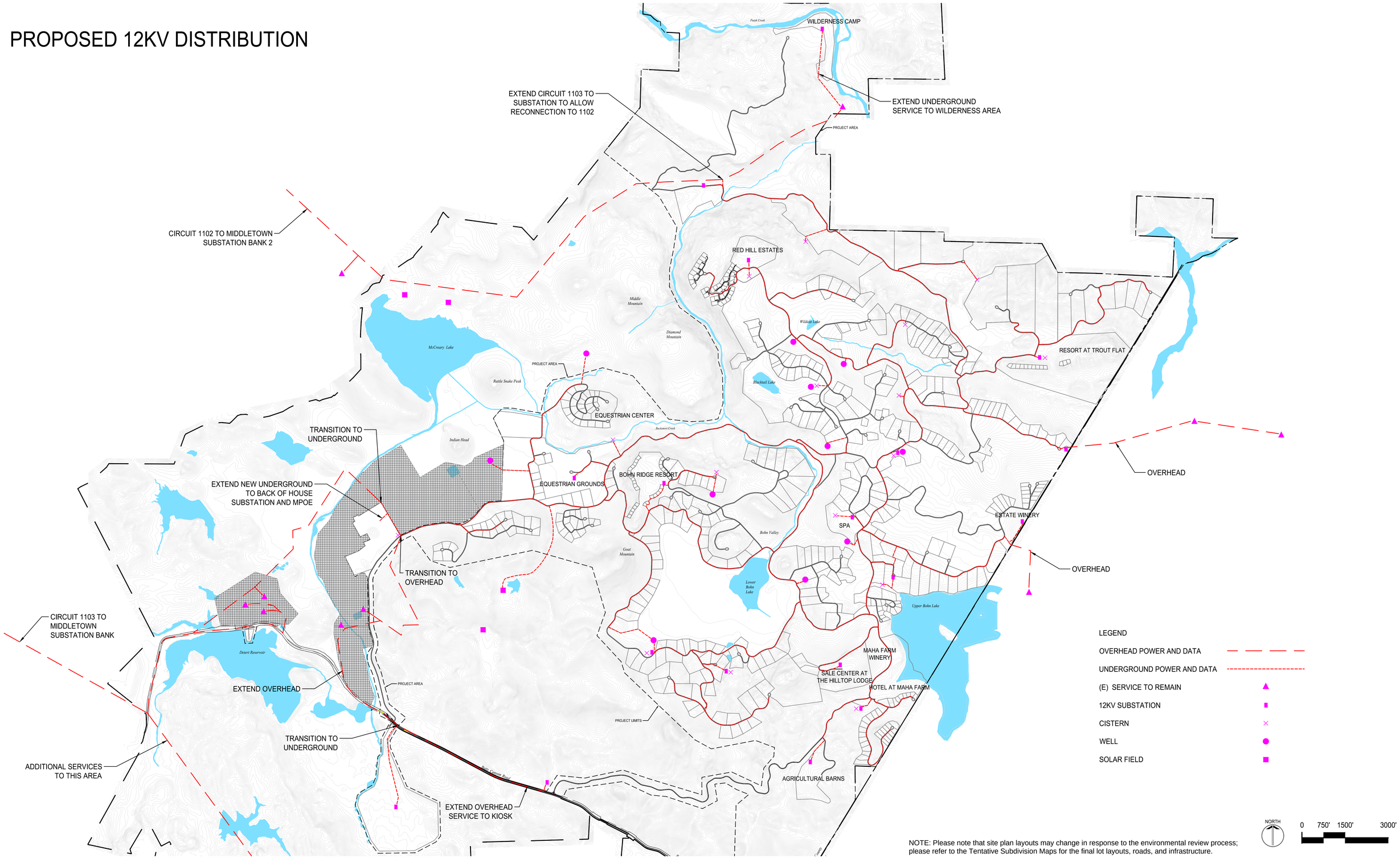
electrical distribution services (metering, distribution, etc.) to all facilities at the Project as shown in the Figure 2 on the following page.

PG&E would be responsible for Distribution Line[15] and Service Extensions[16] from their PG&E facilities both on and off the Project. PG&E will provide all electrical services, including distribution, lines, metering and supply to serve the proposed resort facilities, accessory infrastructure and residential lots. In this option, all PG&E facilities will run within public utility easements that extends 25' out on both sides and from the center of each roadway.

All commercial properties at the Project would be built "Solar Ready" pursuant to applicable California energy code.[17] Each residential structure would be either provided with rooftop solar or the ability to participate in alternative energy developments that would interconnect into the PG&E systems electrical facilities in the vicinity of the Back of House and at the location of the existing overhead service north of McCreary Lake where the PG&E circuit passes through the lake. Alternative energy developments would consist of ground mounted solar arrays coupled with electrical combiner boxes, utility scale inverters, transformers and switchboards with metering, monitoring and relaying as required by PG&E.

[15] https://www.pge.com/tariffs/assets/pdf/tariffbook/ELEC_RULES_15.pdf, accessed 7/8/2019.
[16] https://www.pge.com/tariffs/tm2/pdf/ELEC_RULES_16.pdf, accessed 7/8/2019.
[17] Pursuant to Section 110.10 of the 2019 California Energy Code, California law contains certain mandatory requirements for "solar ready" non-residential buildings that include minimum solar zone areas and other requirements.

PROPOSED 12KV DISTRIBUTION



NOTE: Please note that site plan layouts may change in response to the environmental review process; please refer to the Tentative Subdivision Maps for the final lot layouts, roads, and infrastructure.

In this option, the Project's current utility provider, PG&E, would provide the electrical distribution services (metering, distribution, etc.) to all residential structures at the Project as in Option 1. PG&E would provide Distribution Line and Service Extensions to serve all residential lots at the Project.

For the commercial and other accessory features at the Project, PG&E would only provide a single delivery point to the Project at the service entrance designated as "Back of House." From this point, the developer of the Project ("Developer") would construct, own and operate new meters and distribution lines to each of the 12 commercial facilities at the Project and to each of the 57 other resort accessory features consisting of water wells, waste water treatment plants, cell towers and IT features. This option would allow for the Developer to own and operate "behind the meter" solar plus storage microgrids for all commercial and resort accessory features. Four locations at the Project have been identified as available for ground mounted solar plus storage systems. (See Section 3.1.5 below.) The independent micro-grids could function independent of PG&E, and could also still utilize PG&E as backup, energy storage, emergency services, and/or any other grid-tied services desired per the final Project's design.

Electrical facilities would be established for the purpose of undergrounding, metering and control at Back of House. This location would be a Service Delivery Point[18] for the Developer owned electrical facilities that could potentially include medium voltage switches, metering facilities and or a transformer and line-up of switchgear and associated overhead and underground utility infrastructure. These facilities would serve the commercial aspects of the GVD. In this option the Emergency Response Center would also be established as a Developer owned electrical facility for the purpose of metering and control of power to the commercial aspects at the Project.

From the electrical facilities, new circuits would be dedicated to serve infrastructure loads such as water wells, wastewater treatment facilities, cellular towers and similar facilities. Separate circuits that provide power to the individual Project commercial facilities. In this option back-up power would also be provided at each of the (2) main electrical facilities and provisions to load shed infrastructure circuits would be added to enable prolonged operation of the commercial facilities and infrastructure independent of PG&E. Operation and maintenance of the privately held electrical infrastructure would be by contractors hired through the Project.

Similar to Option 1, each residential structure at the Project would either be provided with rooftop solar or the ability to participate in alternative energy developments that

[18] https://www.pge.com/tariffs/assets/pdf/tariffbook/ELEC_RULES_2.pdf, accessed 7/8/2019.

would interconnect into the PG&E systems electrical facilities in the vicinity of the Back of House area of the development, and or at the location of the existing overhead service north of McCreary Lake where the PG&E circuit passes through the Lake. Alternative energy developments would consist of ground mounted solar arrays coupled with electrical combiner boxes, utility scale inverters, transformers and switchboards with metering, monitoring and relaying as required by PG&E.

Option 3

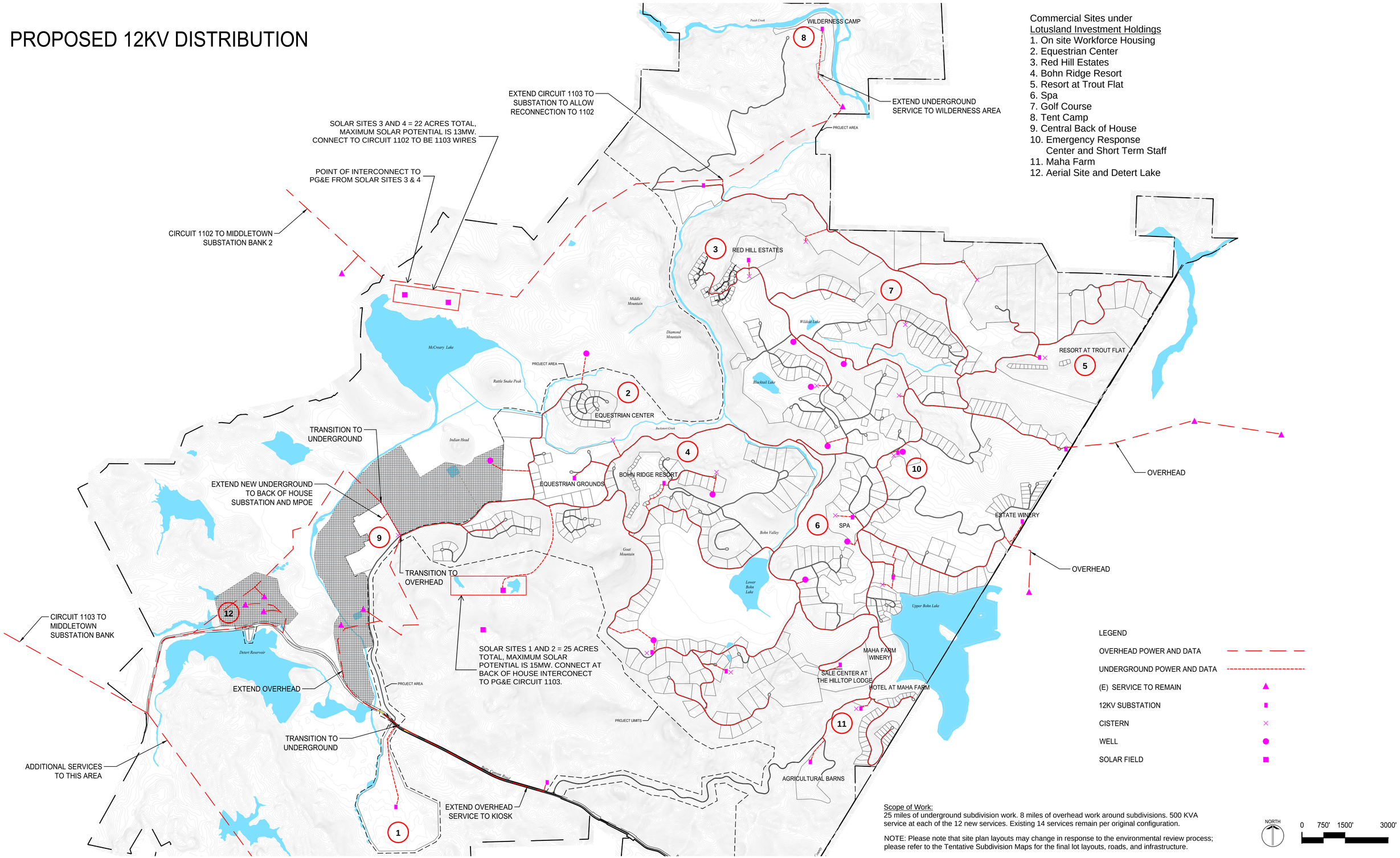
In this option, the Developer would create a "Public Utility District"[19] that would supply power, own all of the electrical infrastructure and provide related services to all of the residential, commercial and accessory buildings and features at the Project. This option includes behind the meter solar for commercial facilities at the central solar locations to enable community solar and community storage to meet the Project's aesthetic goal related to no solar on roofs. Between one to four ground mounted solar plus storage solar systems would be located at the Project, which collectively could generate enough electric supply for the Project's entire energy needs. Similar to Option 2, PG&E would provide a single delivery point to the Project at the service entrance designated as "Back of House."

The Project would establish all services from PG&E at Back of House. PG&E would be responsible for the Distribution Line Extensions up to this point. The Service Delivery Points within The Project would be by the Public Utility District created for that purpose. Like Option 2 the Emergency Response Center would be established as a Developer owned electrical facility for the purpose of metering and control of power to the common ownership facilities within The Project site.

In this option each residential structure would either be provided with rooftop solar or the ability to participate in alternative energy developments that would interconnect into the PG&E systems electrical facilities in the vicinity of the Back of House and at the location of the existing overhead service north of McCreary Lake where the PG&E circuit passes through the lake. Alternative energy developments would consist of ground mounted solar arrays coupled with electrical combiner boxes, utility scale inverters, transformers and switchboards with metering, monitoring and relaying as required by PG&E.

[19] https://calafco.org/sites/default/files/documents/2016%20Formation%20Guide%20WEB.PDF, accessed 7/8/2019.

PROPOSED 12KV DISTRIBUTION



Scope of Work:
25 miles of underground subdivision work. 8 miles of overhead work around subdivisions. 500 KVA service at each of the 12 new services. Existing 14 services remain per original configuration.

NOTE: Please note that site plan layouts may change in response to the environmental review process; please refer to the Tentative Subdivision Maps for the final lot layouts, roads, and infrastructure.

Option 4

This option would provide for a hybrid of Options 2 and 3, wherein Developer would create and own solar plus storage micro-grids that would be constructed for all or certain commercial structures at the Project similar to Option 2. PG&E would service all residential lots at the Project. All commercial facilities served by the privately owned micro-grids would be serviced through traditional solar Power Purchase Agreements ("PPAs") until the formation of the Public Utility District is completed. Under this option, the Project's electrical infrastructure would begin, at least in certain areas of the Project, while the extensive formation processes related to setting up a Public Utility District is accomplished. Option 4 would provide for a phased approach to the development of the Project's distribution infrastructure and include the potential sale of the solar plus storage systems to the Public Utility District at a later date, if desired.

3.1.3. Potential Electrical Infrastructure Improvements

Both on-site and off-site improvements to the existing electrical infrastructure at the Project might be required. Currently, the existing electrical infrastructure at the Project can accommodate up to 12.19 MW of circuit capacity and 19.73 MW of transformer capacity. (See Table 2 above.) These circuit and transformer capacities limit the amount of alternative energy that the existing electrical infrastructure can accommodate. Thus, regardless of the distribution option selected above, both on-site and off-site improvements to the electrical infrastructure will be required if these "allowances" of the existing electrical infrastructure are exceeded.

In order to accommodate increased circuit and transformer capacities, both on-site and off-site infrastructure improvements would be required, as follows: i) a new Trip Transfer Scheme[20] would be required to enable PG&E to remotely turn off power flow from the Project to the utility for the purpose of ensuring safe working conditions for PG&E employees and contractors working on their equipment; (ii) transformer upgrades could be required; and (iii) potential switchboard improvements could be required to accommodate the increased capacity. The potential off-site improvements could include infrastructure improvements, as follows: (i) a potential replacement of the existing PG&E transformer located at PG&E's facility in Middletown to make it larger so that it can accommodate the increased capacity as a result of the Project; and (ii) a potential replacement of the existing overhead lines with new lines that can accommodate the increased capacity. The existing overhead service that could be upgraded runs along Butts Canyon Road and within easements adjacent to the road.

[20] https://peguru.com/2011/04/direct-transfer-trip-scheme/#targetText=Direct%20Transfer%20Trip%20Scheme,is%20assigned%20to%20each%20event.

Any distribution options that include virtual net metering and net energy metering as part of the electrical infrastructure design will require new service requests for Net Energy Metering ("NEM") and/or RES-BCT[21] developments and on-site wire and control upgrades to the applicable areas of the Project's development area as further described in Section 3.1.6 below.

The Developer will be required to work through the PG&E interconnection process to increase capacity to the grid, including the on-site and off-site improvements described above, as applicable, if the alternative energy design requires any of the above on-site or off-site improvements to the existing electrical infrastructure.

3.1.4. Acquisition and/or Reuse of Existing PG&E Easements & Property

Regardless of which distribution option is selected for the Project, certain rights to utilize, re-use and/or purchase existing PG&E easements and property located at the Project will need to be acquired. Several legal processes exist to accomplish this goal, depending on the distribution option elected.

Advice Letter Process (Options 1, 2 or 4)

In the event that Developer elects to pursue either of proposals set forth in Option 1 or 2, (and not form a Public Utility District), then Developer must negotiate with PG&E to purchase, terminate and/or use any PG&E easements and/or property, as desired. Subject to agreed terms being reached, then PG&E would need to file an advice letter or formal application to obtain advance California Public Utilities Commission ("CPUC") approval or file an application to request exemption of the transaction from Section 851 pursuant to Section 853(b). For instance, any such transactions for property of PG&E considered "necessary or useful in the provision of services to the public" require the consent of the CPUC. An exception for minor uses of utility property exempt from CEQA exists that do not require CPUC approval, but it is a factual determination as to whether this exception is met.[22] To obtain CPUC consent for all uses that do not meet the limited use exception requires either a formal application and order from the CPUC or following the utility advice letter procedure.

[21] https://www.pge.com/en_US/for-our-business-partners/interconnection-renewables/export-power/distributed-generation-handbook/net-energy-metering/res-bct-program.page.

[22] GO 69-C provides in pertinent part that " …public utilities covered by the provisions of section 851…are hereby authorized to grant easements, licenses or permits for use or occupancy on, over or under any portion of the operative property of said utilities for rights of way, private roads, agricultural purposes, or other limited uses of their several properties without further special authorization by this Commission whenever it shall appear that the exercise of such easement, license or permit will not interfere with the operations, practices and services of such public utilities to and for their several patrons or customers."

Pursuant to California Public Utilities Code Section 851, PG&E can sell, lease, assign, mortgage, or otherwise dispose of, or encumber the whole or any part of its properties if it received CPUC approval, which shall be obtained either through securing an order from the CPUC for transactions valued at five million dollars ($5,000,000) or more or through the advice letter procedure for transactions valued at five million dollars ($5,000,000) or less. The CPUC determines the types of transactions valued at five million dollars ($5,000,000) or less that qualify for advice letter handling. For a qualified transactions valued at five million dollars ($5,000,000) or less, the CPUC may designate a procedure different than the advice letter procedure if it determines that the transaction warrants a more comprehensive review. Absent protest or incomplete documentation, the CPUC must approve or deny the advice letter within 120 days of its filing by PG&E. It should be noted that although the CPUC has 120 days to assess whether a particular transaction is adverse to the public interest, the CPUC's average time for processing a Section 851 advice letter is approximately 90 days. The CPUC must reject any advice letter that seeks to circumvent the five million dollar ($5,000,000) threshold by dividing a single asset with a value of more than five million dollars ($5,000,000), into component parts, each valued at less than five million dollars ($5,000,000). Every sale, lease, assignment, mortgage, disposition, encumbrance, merger, or consolidation made other than in accordance with the advice letter and approval from the CPUC authorizing it is void.

The purpose of the CPUC review is to ensure that the proposed transaction is not adverse to the public interest – e.g., does not impair the ability of the utility to provide for safe and reliable service to customers at reasonable rates. If a transaction does not qualify for the advice letter process, utility transactions involving the transfer or dispositions of interests in property necessary or useful in the provision of services to the public generally require a formal application and a CPUC decision pursuant to Section 851. The advice letter process expedites and simplifies the CPUC's review and approval of non-controversial transactions by filing an advice letter and obtaining a CPUC resolution approving the transaction. Utilities still must file formal applications, rather than advice letters under the following circumstances: (i) to seek approval of transactions that require CEQA review by the CPUC as either a Lead Agency or a Responsible Agency,[23] or (ii) when a transaction will materially impact the ratebase of the utility, even if the transaction is valued at $5 million or less.

Formation of a Public Utility District (Option 3 or 4)

Alternatively, if Developer selects Option 3 or 4, many regulatory requirements would be required to set up the Public Utility District. Once established pursuant to "The Public

[23] Transactions subject to Section 851 which require CEQA review by the CPUC as either the Lead Agency or a Responsible Agency "jurisdictionally triggers" the CPUC's oversight and review responsibilities under CEQA and therefore does not qualify for advice letter treatment pursuant to Section 853(d). When acting as a Responsible Agency, the CPUC has significant duties under CEQA. For example, as a Responsible Agency, the CPUC must review the environmental documents prepared by the Lead Agency and make its own findings regarding whether the transaction will have significant environmental impacts, and whether these impacts can be mitigated. *State CEQA Guidelines Sections 15096(f) and (h)*. The CPUC may also require additional mitigation measures for significant adverse environmental impacts related to aspects of the Project that the CPUC decides to carry out, finance, or approve. *State CEQA Guidelines Section 15096(g).*

Utility District Act" set forth in California Public Utilities Code § 15501 *et seq.* (the "Act"), the Developer could pursue terminating and/or acquiring any existing PG&E easements and facilities located on the Project through the powers of a Public Utility District. The Act allows residents of an unincorporated area to form a public utility district ("PUD") with the powers to establish, purchase, and operate public works to furnish its inhabitants with power and other utility services. The PUD may furnish those services outside its boundaries, but not in another municipality that furnishes the same service without its consent. The laws governing PUDs and their powers are similar to those for Municipal Utility Districts. A PUD has a wide range of powers, including the provision of electric or other utility services, the construction of utility systems, and issuing bonds. In addition, the voters in a PUD can petition the PUD board to acquire utility works or a utility. The PUD must obtain estimates of the cost of original construction of the existing facilities and completion by the PUD of similar facilities. The PUD may ask the CPUC to value existing utility facilities for the purpose of submitting estimates of the cost of acquiring them to the PUD 's voters at an election.

A PUD has a wide range of powers, including the provision of electric or other utility services, the construction of utility systems, and issuing bonds. For instance, PUDs may take by eminent domain any property necessary or convenient to the exercise its powers. Section §16404 of the Act. Additionally, PUDs may acquire, construct, own, operate, control, or use, within or without or partly within and partly without the district, works for supplying its inhabitants with light, water, power, heat, transportation, telephone service, or other means of communication, or means for the disposition of garbage, sewage, or refuse matter, and may do all things necessary or convenient to the full exercise of the powers granted in this article. Section §16461 of the Act. PUDs may also acquire, construct, own, complete, use, and operate a fire department, street lighting system, public parks, public playgrounds, golf courses, public swimming pools, public recreation buildings, buildings to be used for public purposes, and works to provide for the drainage of roads, streets, and public places, including, but not limited to, curbs, gutters, sidewalks, and pavement of streets. For purposes of this division, all of those projects shall be considered a public utility or public utility works. Section §16461 of the Act.

Pursuant to Public Utilities Code Section 1402 et seq.*,* a PUD can petition the CPUC to determine the value of utility property it seeks to acquire. A PUD may file a petition when it intends to (1) acquire public utility property by eminent domain or otherwise or (2) submit to its voters a proposition for such acquisition. The CPUC must give the utility an opportunity to show cause why it should not act on the petition. Otherwise, the CPUC must hold a hearing and determine the just compensation the PUD must pay the utility for the property. Within 20 days after the commission does this, the utility may file a written stipulation agreeing to accept the compensation set by the PUC with the political subdivision's governing body. Upon filing the stipulation, the political subdivision must proceed with all due diligence to provide the funding. When the political subdivision pays the compensation, the utility must provide it with the property deed. If the utility does not file the stipulation within 20 days, the PUD must (1) begin a court action (suit) to take the property or (2) submit a proposition to the voters to do so. The PUD must act within 60 days after the CPUC makes its determination. In the second case, if the voters approve the proposition, the PUD must file an action to take the property within 60 days of the vote

unless the utility and the PUD agree on terms for the acquisition.

The CPUC's finding on just compensation is final and may not be modified, reversed, or reviewed by any state court. If the court where the PUD pursues the condemnation proceeding decides that it has the right to take the utility's property, the court must enter a judgment in favor of the PUD fixing the compensation in the amount set by the CPUC. If the utility spent money on the property after the CPUC made its determination, it can go back to the CPUC within 30 days after the court enters its judgment to increase the compensation. Similarly, the PUD can go to the CPUC in this period if the property's value deteriorated after the CPUC made its original finding to reduce the compensation. The CPUC's decision on the extent to which the compensation should be adjusted is final. If the PUD does not act within 60 days after the CPUC makes its initial determination, the utility can petition the CPUC to determine that (1) the PUD failed to pursue diligently its rights; (2) its finding as to just compensation is no longer in force; and (3) the utility's reasonable expenditures in connection with the proceedings, which in the CPUC's opinion, could be assessed against the PUD.

3.1.5. First Phase Energy Usage and Demands

During the First Phase, the load on the Project's electrical infrastructure will increase over time. The combined impacts of the proposed power density, peak demand and annual energy usage are summarized in the table below. The resulting power density remains in the residential, low density rural area range of 10- 300 kva/Sq mile.

Table 6: Power Density and Usage

Power Density	Power Density (KVA/Sq mile)	Annual Consumption (MWh)	Peak Demand (MW)
Existing	11	266	0.4
Proposed First Phase	114	25,824	3.7
Proposed First Phase Infrastructure	144	4,735	1.1
Proposed Future Phases	269	28,462	4.5
Proposed First Phase and Future Phases	269	59,021	9.7

In response to the threat of wildfires fires started from overhead wires PG&E's Public Safety Power Shutoff Program[24] is in effect. This program shuts off power to customers under certain conditions related to humidity, wind speed, environmental conditions and on the ground observations. PG&E estimates a Public Safety Power Shutoff event to occur several times per year in PG&E's service area. Because the Project has significant areas within CPUC's Fire-Threat Map[25] areas ,it is anticipated the Project will be subject to

[24] https://www.pge.com/en_US/safety/emergency-preparedness/natural-disaster/wildfires/public-safety-power-shutoff-faq.page, accessed 7/8/2019.
[25] https://www.cpuc.ca.gov/FireThreatMaps/, accessed 7/8/2019.

multiple outages through the Fire Season.

For this reason and to support continuous service to the Project, each area of the Project could be provided with a standby generator to provide essential services to the individual resort properties, and infrastructure systems. In Electrical Infrastructure Options 2, 3 and 4, each switchboard will have standby power available in the event of an extended Public Safety Power Shutoff. When power from PG&E is turned off the standby power's control system will sense the loss of voltage and start the standby supply.

3.1.6. Standby Power

All distribution options include the development of standby power to enable prolonged electricity generation during times of limited on-site generation and/or to limit dependency on PG&E sources. The standby power sources could be batteries ("Energy Storage Systems") or generators with on-site fuel storage or a mix of Energy Storage Systems and generators. Potential fuel sources for the generators include diesel, propone, LNG or CNG. The number of generators required, if any, will be dependent on the types and capabilities of any Energy Storage System(s) included in the final design.

The standby power sources would be developed consisting of some level of generator(s) and/or Energy Storage System(s) with paralleling capabilities. Approximately 30,000 gallons of on-site fuel could be required for each generator depending on the quantity of battery storage containers refined in schematic design.

To cover each water and wastewater facility proposed in the SPOD, a potential total of forty 40-HP generators (30 kW), each with 96 hours of fuel storage could be required. These would be emergency generators with Automatic Transfer Switches or a form of Energy Storage System(s). The IT facilities could require a total of eight 125-kW generators (93 HP), and similarly each would require storage of 96 hours of standby fuel.

Since the standby power sources would only be utilized as necessary, the sources would not have set operating hours. All standby power sources would be tested monthly. The units over 50 HP will, by permit, be limited to 60 hours per year for testing not including emergency operations such as during a PG&E Emergency Power Safety Shutdown.

3.1.7. Alternative Energy Resources

A number of areas at the Project have been identified as appropriate for the development of solar energy systems for generation of the Project's energy needs, as indicated in Figure 4 below.

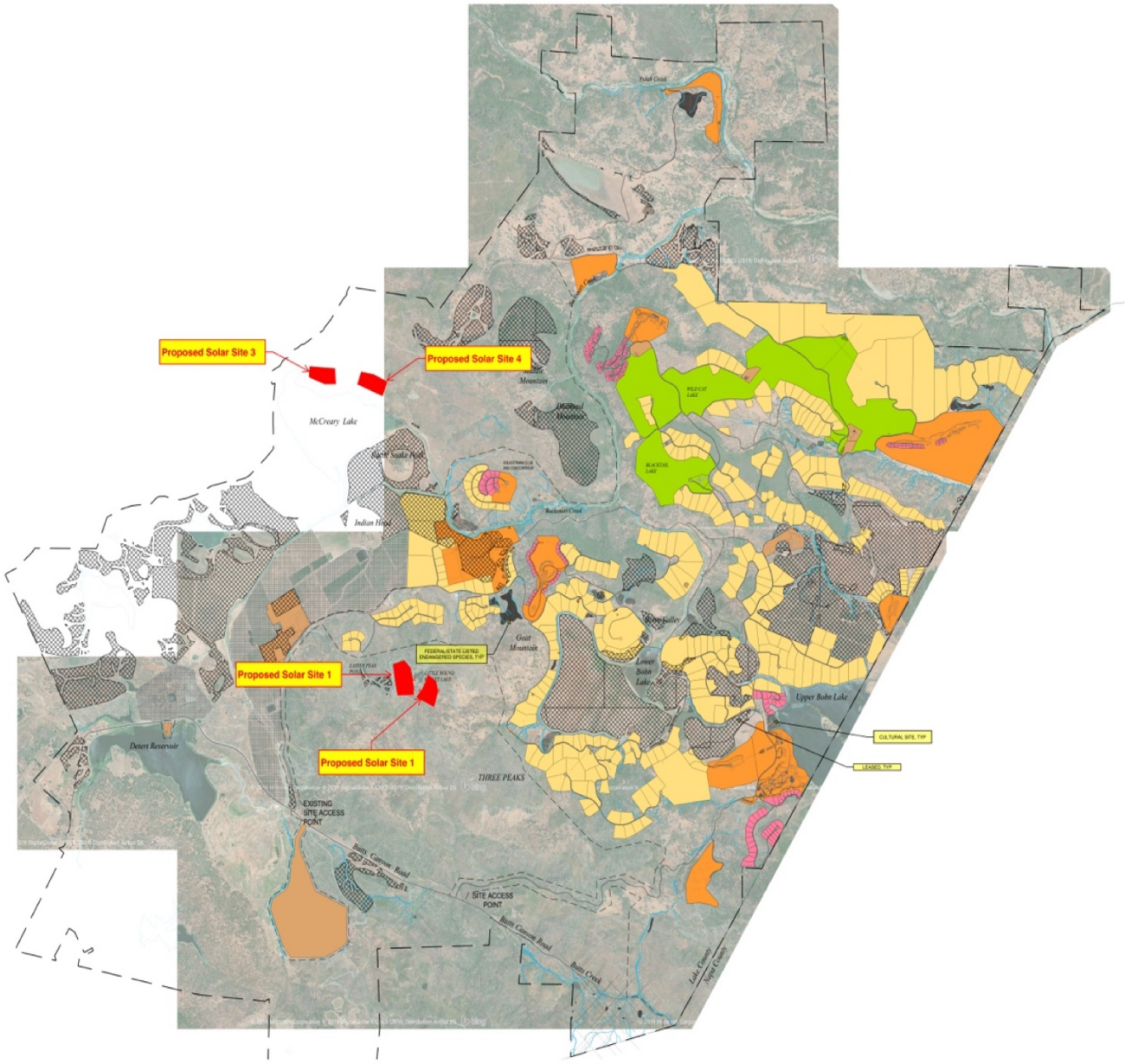


Figure 4. Proposed Solar Sites

Given that California law requires all new residential construction to contain rooftop solar or be provided solar from a community solar system, the development of either rooftop or ground-mounted community solar systems for the residential structures and the applicable contractual requirements related thereto will be a required part of any electrical infrastructure for the Project. Rooftop solar will be integrated into the building architecture as much as possible; in addition, up to four areas within the development area are identified for potential ground mounted solar arrays and associated

equipment.[26]

The maximum size of all ground mounted solar systems that could be built in the Project's development area are as shown in Table 7 below. The selection of the sizes of these ground mounted solar systems will be optimized to meet the needs of the projected energy demands and as the design progresses.

Table 7: Solar Site Maximum Potential

Solar Site	Gross Area (acres)	Maximum Size of Solar Array (MW-AC)
1	15	9
2	10	6
3	10	6
4	11	7
Total	46	28

Battery technology-based Energy Storage Systems will be collocated with the solar fields to optimize discharge and storage of energy. This enables sizing of both the solar arrays and the energy storage such that all energy generated by the solar systems are either used at the instant power is generated or the power is stored in the Energy Storage Systems for use later when the sun has set. Alternate uses of the Energy Storage Systems are to shape the loads, provide grid services, minimize demand and avoid costs that would otherwise be required.

[26] http://www.lakecountyca.gov/Assets/Departments/CDD/Planning/Docs/Guenoc/Maha+SPOD.pdf, page 11 Sustainability Efforts, accessed 7/8/2019.

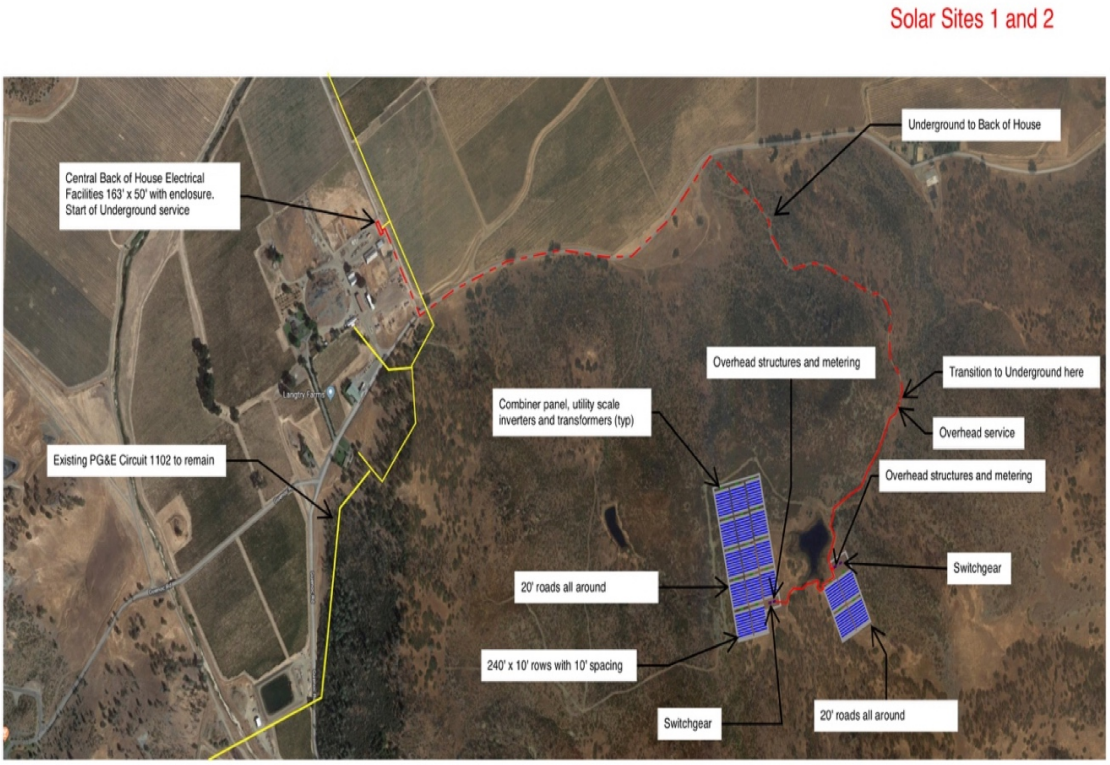


Figure 5. Solar Sites 1 and 2

The off-site improvements to the electrical infrastructure for these solar systems would require the installation of a Trip Transfer Scheme and include a Panel located at the Middletown Substation, as more fully described in Section 3.1.2 above. A telemetry cable would be required to be installed on existing PG&E poles down Butts Canyon to the point of interconnect. Another utility panel would be required to be installed at the point of interconnect on-site.

On the Project's development area north of McCreary Lake, two ground mounted solar systems could be constructed as shown in Figure 6. Each of the ground mounted solar systems on Solar Sites 3 and 4 could be located on the Project's development area and configured in the manner shown below.

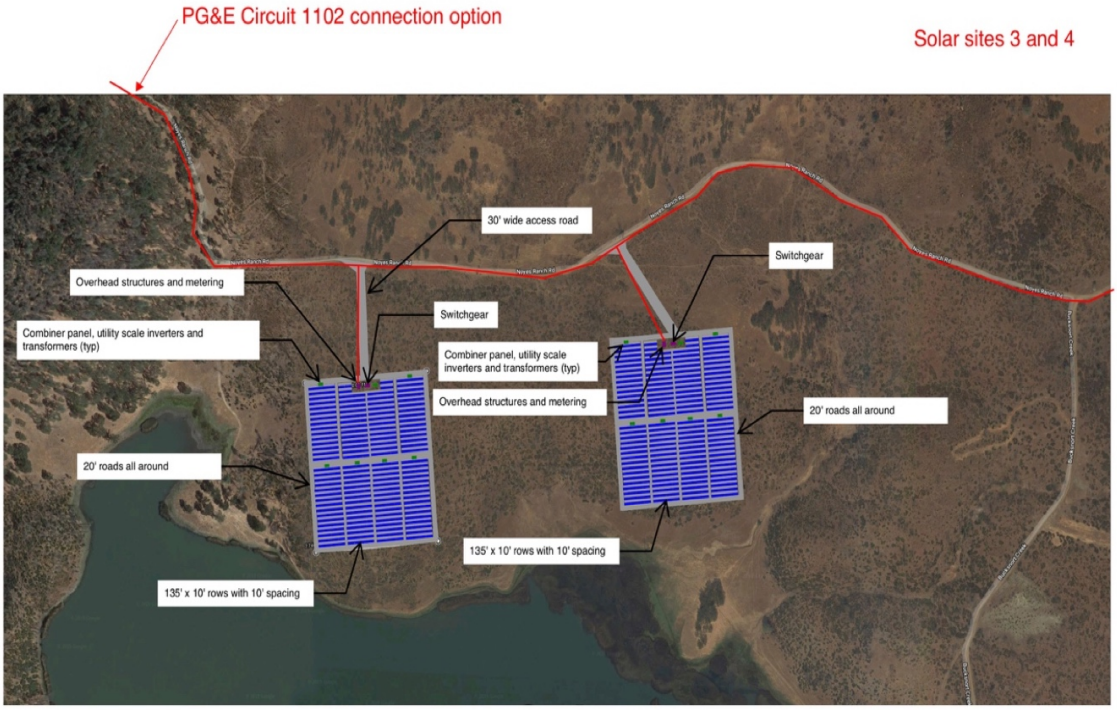


Figure 6. Solar Sites 3 and 4

If Developer elected to maximize the alternative energy resources in the Project's development area, then plans and specifications for approval of the balance of power on all Solar Sites 1 through 4 would add up to the limits of the alternative energy resources of 28 MW as described in Table 7 above. The Developer would be required to work through the PG&E interconnect process to increase capacity of the grid to support any off-site

export from the Project. Additionally, the Developer would be required to work through the CalISO interconnect process to enable power transmission to local utilities, as ultimately desired. The combined work to construct these solar resources would result in modifications to the PG&E infrastructure, as follows: (i) upgrade of the Middletown Transformer to a larger size as shown on Circuit 1103 per Table 2 above; (ii) upgrade electrical buss[27] at Middletown substation to accommodate increased capacity from the Project's solar systems; and (iii) upgrade of the wires on the poles in Butts Canyon per Table 2.

To the extent that Developer elects to construct any alternative energy resources on structures in a manner that relies upon net-energy metering ("NEM") or virtual net energy metering through PG&E, then, new service requests for NEM or RES-BCT developments on Butts Canyon would be required.

3.1.8. Microgrid Operation

A microgrid is a contained energy system capable of balancing captive supply and demand resources to maintain reliability. Microgrids have the following key elements and features:

- Defined by function, not size
- Incorporates multiple distributed technologies
- Maximizes reliability and efficiency
- Can include other utilities – steam, hot water, chilled water, network connectivity
- Can function in "islanded mode" disconnected from larger utility grid

The distribution Options 2, 3 and 4 all include the potential of all or portions of the electrical infrastructure at the Project being developed as alternative energy microgrid(s). Under normal conditions, the on-site micro-grid system(s) could be connected to PG&E with alternative energy systems operating to produce adequate power to both charge batteries and supply all of the power needs for the Project. In such case, the emergency and standby systems would be off unless otherwise needed.

If connected to PG&E, and in the event of a Public Safety Power Shutoff event, when PG&E secures power, the on-site energy systems will continue to serve the microgrid. The emergency and standby systems will operate in the event the microgrid is not available or the demands on the Project exceed available capacity. In distribution Options 2, 3 and 4 the standby systems will be designed to operate for up to five days with all other generation systems in the Project and GVD off.

[27] In electric power distribution, a busbar (also electrical buss) is a metallic strip or bar, typically housed inside switchgear, panel boards, and busway enclosures for local high current power distribution. They are also used to connect high voltage equipment at electrical switchyards, and low voltage equipment in battery banks. They are generally uninsulated, and have sufficient stiffness to be supported in air by insulated pillars. These features allow sufficient cooling of the conductors, and the ability to tap in at various points without creating a new joint.

3.1.9. Offtake of Export Energy & Ancillary Products

Any electricity generation and/or Energy Storage System products in excess of that required for the Project's energy demands, may be exported to a local municipality or Customer Choice Aggregator ("CCA")[28] or utility as determined appropriate. Such export of energy and/or ancillary products is a common feature of alternative energy projects and a component of microgrid operations when functioning in a grid-tied service area, especially due to the intermittent nature of alternative energy resources. Depending on the distribution option selected for the Project, the Developer may elect to connect the Project to the energy grid "in front" of the Project's development area revenue meter in order to enter into a front-of-meter contract to provide one or multiple functions to a CCA or utility, such as a generation resource, energy load or "sink." Front-of-meter contracts are frequent elements of alternative energy developments in California providing important streams of income for cash flow and assisting CCAs and utilities with respect to meeting California's Renewable Procurement Standards ("RPS") and managing intermittent supplies of alternative energy on the grid.[29]

A front-of-meter contract for the solar plus storage at the Project's development area could take the form of an Energy Capacity Sales Agreement or a Hybrid Power Purchase Agreement ("PPA"). Under a Capacity Sales Agreement, a utility or CCA would contract with the Developer for Resource Adequacy benefits or other capacity attributes solely from the Energy Storage System(s) located at the Project. The utility or CCA would purchase only the capacity and capacity attributes form the Energy Storage Systems leaving the Developer free to sell all of the Energy Storage System's and solar products, including energy, ancillary services, etc. to other parties, such as tenants at the Project's development area. The utility or CCA would pay a monthly capacity charge to the Developer, but no variable or energy charge. The Developer would retain the operational

[28] In 2002, California State Legislature passed Assembly Bill 117, enabling Community choice aggregation (CCA). CCA, also known as municipal aggregation, are programs that allow local governments to procure power on behalf of their residents, businesses, and municipal accounts from an alternative supplier while still receiving transmission and distribution service from their existing utility provider. In 2018, six of California's 19 CCAs had PPAs for new renewables.

[29] California's Renewables Portfolio Standard (RPS) was established in 2002 via SB 1078, which required 20 percent of the State's energy portfolio to be supplied by renewable sources such as solar, wind, hydroelectricity, geothermal, and bioenergy renewable energy by 2017. RPS goals have been accelerated over time to require the State's energy portfolio to be supplied by renewable sources in increasingly higher percentages. Since 2011, the RPS target has required all electricity retailers in the state, including CCAs and investor-owned utilities such as PG&E to procure 33 percent of their energy sales from renewable sources by the end of 2020. SB 350, passed in 2015, directs California utilities to further increase the amount of renewable energy to be delivered to customers to 50 percent by 2050. Collectively, PG&E, SCE, and SDG&E met the 33 percent goal in 2016 and are forecasted to reach 50 percent in 2020 (CPUC 2018c). Additionally, California CCAs submitted 2018 RPS compliance reports which showed that of the 19 CCAs that are currently providing energy load, three (15%) have already procured long term contracts above the 65% requirement, four have procured some long-term contracts but need to procure more to meet the 65% requirement, 11 have procured only short-term contracts, and one has not procured any RPS energy.

control and full authority over charging and discharging the Energy Storage System(s). The Developer could agree to certain exceptions, such as the utility or CCA's right to dispatch the Energy Storage System(s) during a limited number of peak hours each year.

Under a Hybrid PPA, the Developer would sell bundled products from the alternative energy generated from the solar systems integrated with some type of Energy Storage System product. Two main types of Hybrid PPAs could be selected. An as-available, take-or-pay Hybrid PPA typically requires the Energy Storage System(s) are only charged by on-site renewable energy generation. The Energy Storage System(s) would be discharged to moderate renewable intermittent energy flows on the grid. The Developer could sell as available energy bundled with other available products such as capacity attributes or RECs to the utility or CCA and would receive a fixed or escalating price in return. Under this type of Hybrid PPA, the utility or CCA typically has full discretion to charge and discharge the Energy Storage Systems, subject to certain operating parameters. The Energy Storage Systems would be designed to satisfy minimum levels of operating and technical requirements assessed based on the Solar Plus Storage Systems' performance in smoothing out energy flows.

Alternatively, the Developer may elect to execute a Hybrid PPA that sells renewable energy generated by the solar sources to the utility or CCA and allows the utility or CCA to decide when to charge and discharge the Energy Storage Systems and whether to charge the Energy Storage Systems from the on-site renewable energy generation or the grid. This type of hybrid PPA provides a grid service to the utility or CCA and is increasing popular with utilities and CCAs in California.

The compensation structures in Hybrid Renewable PPAs vary but typically the Developer would receive either (i) an energy charge ($/MWh) for energy delivered plus a capacity payment in relation to the Energy Storage Systems ($.KW-month) or (ii) just an energy charge ($/MWh), but with an agreed "adder" per MWh to compensate the Developer for the Energy Storage Systems.

In addition to the on-site and off-site improvements that would be required to accommodate the alternative energy resources, as discussed in Sections 3.1.2 and 3.1.6 above, the Developer would begin working through the California ISO interconnection process to enable power transmission to utilities or CCAs, as applicable. Once such processes are completed, the Developer could enter into a negotiation process with a CCA or other type of utility to execute one or more of the above described front-of-meter agreements.

3.2. Electrical Service Infrastructure for Future Phases

As the Future Phases of the Project are developed, the electrical infrastructure implemented in First Phase will be built upon with the goal of maintaining the Project's goals of reliability, clean power and resiliency. The potential development within the new zoning classification GVD

includes additional PV solar, energy storage and other energy generation technology to support the distribution option selected in the First Phase and Future Phases. Infrastructure systems to be built in the First Phase of the Project will support Future Phases.

4.0 OTHER CONSIDERATIONS

4.1 Direct and Indirect Environmental and Community Benefits

All electrical infrastructure developed at the Project as described herein will enable resilience, reliability and consistent power supply and distribution services for the Project. There are many direct and indirect benefits from solar energy, energy storage and microgrids to the Project, ranging from emergency power services to clean air.

In regard to direct environmental benefits, the proposed electrical infrastructure's distribution Options 2 through 4 offers distinct advantages. Option 1 would respond to California state law and generate approximately 2,775 KW of PV solar energy. Options 2 through 4 would go beyond California state law requirements, being the most environmentally superior options, and result in up to 28 MW of clean PV solar energy generated by the Project's electrical infrastructure.

There are also other indirect benefits that could be more readily monetized by the Project regardless of the chosen distribution option. The National Renewable Energy Laboratory ("NREL"), for instance, examined the value that energy storage has in reducing demand charges which are utility charges that are typically based on the peak amount of energy used in a specified time interval. Demand charges are designed to enable the utility to recover costs associated with having to build distribution capacity that is idle except for during peak demand periods. The end user's demand charge is usually set by a formula that considers, among other things, how that end user's peak demand coincides with the grid's peak demand. An end user whose own peak coincides with grid peak pays a higher demand charge.

Demand charges are not trivial. NREL determined that 25% of commercial customers pay demand charges greater than $0.015/kWh.[30] A microgrid can reduce this cost substantially. The Project can manage coincident peak contribution during peak grid times, such as hot summer afternoons. Likewise, the Project could manage peak load contribution for capacity charges and could even sell power back to the grid during peak load periods. Microgrids have been found to be cost-effective based upon indirect value to the community, providing emergency power and clean energy.

[30] *See* J. McLaren et al, "Identifying Potential Markets for Behind the Meter Battery Energy Storage: A Survey of the U.S. Demand Charges." National Renewable Energy Laboratory (2017) https://www.nrel.gov/docs/fy17osti/68963.pdf See also: E. Wood, "Wondering if Energy Storage Can Reduce Your Demand Charges," Microgrid Knowledge, August 24, 2017, found at: https://microgridknowledge.com/demand- charges-energy-storage/

4.2 Energy Impacts[31]

Analysis of the energy impacts reveals there will be a significant increase in energy use on the Project when compared to usage in the agricultural setting today. All aspects of the Project will be built to meet energy use code requirements and systems will be put in place to minimize wasteful, inefficient and unnecessary use of energy resources within the buildings in accordance with the California building and energy codes.

During the construction of First Phase and Future Phases, electrical energy will be consumed in the course of constructing the facility. Overall demolition and construction activities will be analyzed in a separate report prepared by the Developer. Operations will increase electrical consumption on the Project. The Project will be built in phases and the electricity usage will grow over time and generally in accordance with the Table 6.

5.0 CONCLUSION

As can be seen from the analyses presented in this report, the development of the proposed PV solar based electrical infrastructure options for the Project are all technically feasible, meet the needs of the Project and comply with California state law. Each of the four distribution options described herein would meet the energy demand needs of the Project, and the possibility of developing the distribution options in phases is feasible. With PV solar systems as the primary source of energy generation, nearly all of the electrical energy requirements at the Project will be met in an environmentally sound manner.

We have created a work flow for the Project's electrical infrastructure development, which is included in Exhibit A –Work Flow attached hereto. This Work Flow sets forth in detail the specific tasks related to the Project's electrical infrastructure development, the applicable processes related thereto and estimated timelines for completion of the electrical distribution options analyzed in this report.

[31] http://resources.ca.gov/ceqa/docs/2018_CEQA_FINAL_TEXT_122818.pdf, page 30 accessed 7/8/2019.

- EXHIBIT A -
Work Flow

	ELECTRICAL INFRASTRUCTURE DEVELOPMENT ISSUES	ACTION ITEMS & PROCESSES	ESTIMATED TIMEFRAMES
1	Submit Public Draft of EIR	• Finalize DEIR	TBD
2	Developer must purchase from the current utility provider, PG&E, 18 miles of existing PG&E 12 KV circuit (which needs to be either removed or reused).	• Either through Advice Letter process with PG&E & CPUC or the creation of a Public Utility District & CPUC approval or seeking an exemption. • Further legal due diligence required.	TBD
3	Developer must install 25 miles of new joint trench and underground electrical infrastructure in the Project's proposed subdivisions.	• TBD - Dependent on construction timelines, development agreement and other factors still needed to be worked out. • Further legal due diligence required.	TBD
4	Developer must install 8 miles of overhead cables and poles to connect the proposed subdivisions.	• TBD – Dependent on construction timelines, development agreement and other factors still needed to be worked out. • Further legal due diligence required.	TBD
5	Per California law, for all residential structures, Developer must either install PV solar on the rooftops or provide solar through ground-mounted community solar systems.	• Further financial analysis as to best option for Developer would be beneficial here – eg. Financial modeling for Developer owned and operated community solar projects v. if Developer contracts out supply/servicing of solar projects to a third-party to own & operate the systems should be considered. • Whatever method of ownership is selected, this action item will require certain contracts to be drafted/negotiated with third-parties such as EPC contractors, vendors and end-users. Terms of warranties are important considerations in these types of documents. • A community solar ground mounted project would require additional legal work structure. A 20 year minimum commitment required for dedicated solar from any ground mounted project to each residential structure. • If ground mounted community solar project selected, Developer must submit an application to California Energy Commission ("Commission") for approval to administer a community shared solar electric generation or community shared battery storage system to provide partial or total compliance with the onsite electric generation system and/or battery storage system required by Section 150.1 of Title 24, California Code of Regulations, Part 6. The application must demonstrate to the Commission's satisfaction that each of the requirements for Section 10-115(a)1-	TBD: If ground-mounted community solar method selected as the solar installation choice, then such community solar systems must be installed and ready for inspection no later than the time the residential structures are inspected for compliance by the building department. All documentation for the community solar electric generation system and/or community solar battery storage system that is required to demonstrate compliance for the building must be completed prior to building permit applications.

		6 will be meet and shall include detailed explanation of the actions that will be taken by the applicant to ensure that each requirement is met over the period of time specified Section 10-115(a)4 for each building for which a partial or total offset is used to demonstrate compliance. • Further legal due diligence required.	
6	Per California law, all commercial structures must be build "Solar Ready" or, alternatively, Developer can elect to develop ground-mounted community solar projects to supply the commercial buildings' energy needs.	• See similar comments to Item 7 above. • Additionally, if ground mounted solar plus storage micro-grid are created and owner operated, then the development of solar PPAs for the sale of electricity to end user customers will need to occur. • Further legal due diligence required.	TBD
7	Recommendation that Developer install storage (battery type TBD) at every location where PV solar is installed – eg., regardless of choice to do rooftop solar or community solar.	• Further financial analysis as to best option for Developer would be beneficial here. • Decision partly dependent on which distribution option is chosen below. E.g., an independent microgrid requires some type of battery storage paired with the solar. Even if Option 1 is chose, the majority professional opinion in the industry is that solar system should either be sized for a baseload, e.g., never export to PG&E, or add storage to solar because PG&E retail rates extend the payback of a solar system when selling back to PG&E.	TBD
8	Based review of PG&E's Solar Photovoltaic ("PV) and Renewable Auction Mechanism ("RAM") Program Map, the SPOD, and the Project's tentative map, it appears that the construction plans for the Project contain residential and commercial buildings and other accessory features in areas directly over (to be constructed on top of) existing PG&E easements and poles.	• Further legal due diligence required. • Potential coordination/negotiation with PG&E required to reach agreement on moving or co-using the applicable easements and PG&E property over which construction is desired. If the uses do not qualify for a de minimis use exception of PG&E property, either the Advice Letter process with PG&E & CPUC *or* the creation of a Public Utility District & CPUC approval is required.	TBD
9	**Option 1:** The Project's current utility provider, PG&E, would provide the electrical distribution services (metering, distribution, etc.) to all facilities at the Project. This would require Developer to work with PG&E to request that PG&E, in coordination with Developer, build standard subdivision reconnects to the 11 existing PG&E service points on the Project. These subdivision reconnects would be built across the multiple newly created parcels and "remaining parcels" as shown on the tentative subdivision maps for the Project. All commercial properties would be built "Solar Ready" pursuant to applicable California energy code.	• Further legal due diligence required.	TBD

10	**Option 2:** The Project's current utility provider, PG&E, would provide the electrical distribution services (metering, distribution, etc.) to all residential structures at the Project as in Option 1. However, for the commercial and other accessory features at the Project, PG&E would only provide a single delivery point to the Project at the service entrance designated as "Back of House." From this point, Developer would construct, own and operate new meters and distribution lines to each of the 12 commercial facilities at the Project and to each of the 57 other resort accessory features consisting of water wells, waste water treatment plants, cell towers and IT features. This option would allow for Developer to own and operate "behind the meter" solar plus storage microgrids for all commercial and resort accessory features. Four locations at the Project have been identified as available for ground mounted solar plus storage systems. The independent micro-grids could function independent of PG&E, and could also still utilize PG&E as backup, energy storage, emergency services, and/or any other grid-tied services desired per the final Project's design.	• The development of independent behind the meter solar plus storage microgrids for the commercial and other facilities at the Project could be accomplished with the projects owned by Developer and the electricity sold to the lessors of the buildings at the Project through traditional solar Power Purchase Agreements ("PPAs). The development of such PPA documents would be relatively straightforward given the lack of apparent tax equity investor and Developer's position of also owning the land and buildings; however, the transactional documents would still require a certain amount of time to set up from a legal perspective. • Further legal due diligence required.	TBD
11	**Option 3:** This option envisions that Developer would create a "Public Utility District" that would supply power, own all of the electrical infrastructure and provide related services to all of the residential, commercial and accessory buildings and features at the Project. This option includes behind the meter solar for commercial facilities at the central solar locations to enable community solar and community storage to meet the Project's aesthetic goal related to no solar on roofs. Between one to four ground mounted solar plus storage solar systems would be located at the Project, which collectively could generate enough electric supply for the Project's entire energy needs. Similar to Option 2, PG&E would provide a single delivery point to the Project at the service entrance designated as "Back of House" and the "remainder parcels" including roads connecting the commercial properties would be recorded as a single parcel or multiple parcel's with a designated network of easements to accommodate the micro-grid design.	• Finish feasibility study. • Further legal due diligence / analysis required. • Conduct study with legal input to estimate the value of the electric distribution system. • Hold referendum to create District. • Potentially hire third-party to assist with running the day to day operations of the Public Utility District. • Construct, own and operate community solar and storage systems at the Project. • Ongoing operations and maintenance obligations of electrical infrastructure required. • Evaluate financing alternatives for any debt desired/required for the acquisition of District/utility assets. • Exercise rights to acquire PG&E easements and property for District.	TBD: Uncertain and lengthy process.
12	**Option 4:** This option would provide for a hybrid of Options 2 and 3, wherein Developer would create and own solar	• Similar comments to 13 and 14 above	TBD

	plus storage micro-grids that would be constructed for all or certain commercial structures at the Project similar to Option 2. PG&E would service all residential lots at the Project. All commercial facilities served by the privately owned micro-grids would be serviced through traditional solar Power Purchase Agreements ("PPAs") until the formation of the Public Utility District is completed. Under this option, the Project's electrical infrastructure would begin, at least in certain areas of the Project, while the extensive formation processes related to setting up a Public Utility District is accomplished. Option 4 would provide for a phased approach to the development of the Project's distribution infrastructure and include the potential sale of the solar plus storage systems to the Public Utility District at a later date, if desired.		