

CALISTOGA PLANNING COMMISSION
STAFF REPORT

TO: Calistoga Planning Commission
FROM: Jeff Mitchem, Planning & Building Director
Mike Janusek, AICP, Consultant Planner (M-Group)
MEETING DATE: June 14, 2023
SUBJECT: **Use Permit, Design Review and CEQA Exemption for Clean Station Microgrid Project, 204 Washington Street (UP 2022-11 and DR 2022-4)**

ITEM

Consideration of a use permit application (UP 2022-11), a design review application (DR 2022-4) pending concept guidance and California Environmental Quality Act (CEQA) Exemption for a proposed hydrogen substation microgrid on an approximately 0.71-acre footprint located at 204 Washington Street (APN 011-260-002 and -003).

Refer to **Attachment 1** for Draft Resolution.

BACKGROUND

The project is proposed on an approximately 0.71-acre portion of a larger approximately 6.77-acre City-owned parcel consisting of two parcels (APN 011-260-002 and -003) at 204 Washington Street. The property is developed with a mix of existing public and quasi-public uses including the Calistoga Little League Tedeschi Field, City of Calistoga Public Works Center, Calistoga Community Garden, and other ancillary utility structures including an existing Pacific Gas and Electric (PG&E) facility containing a diesel powered microgrid for backup energy generation during public safety power shutoff (PSPS) events.

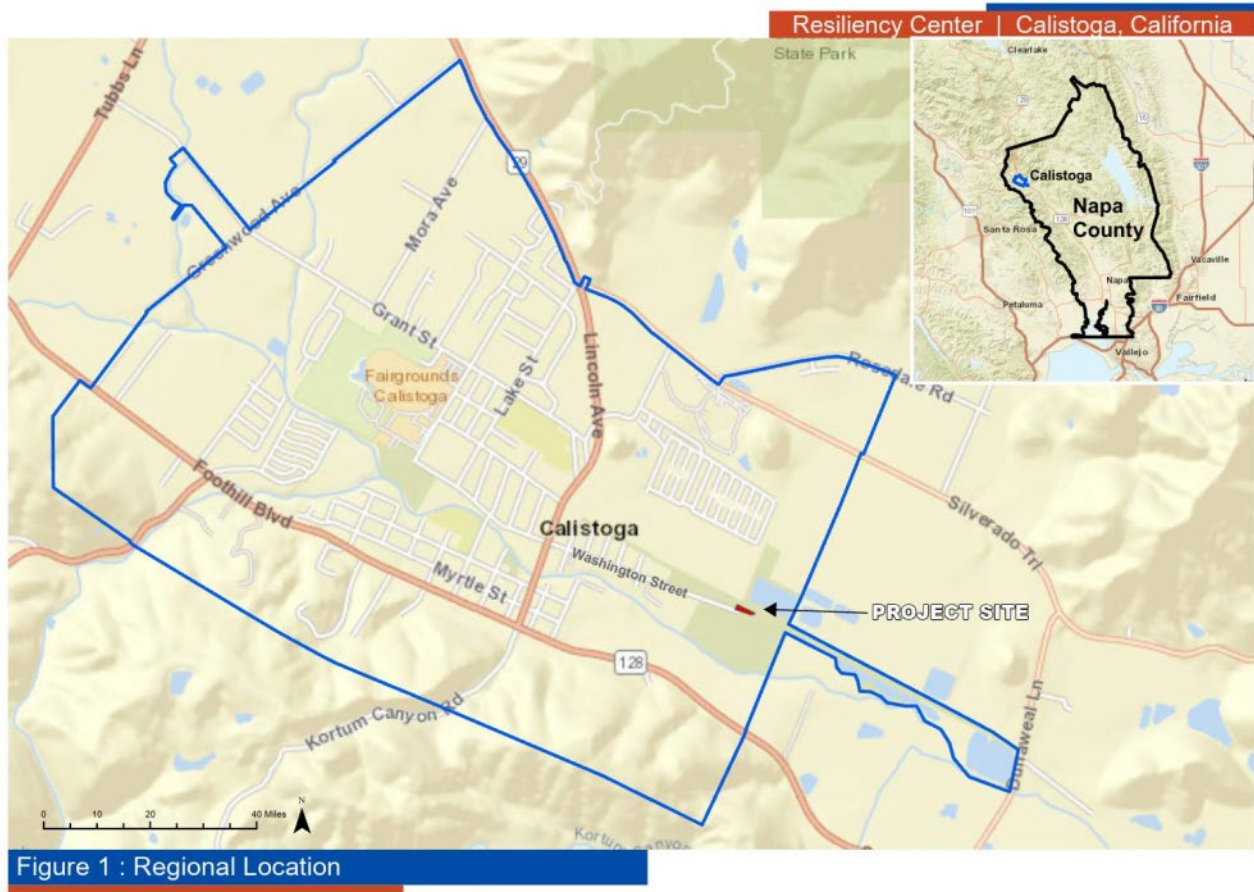
Additionally, the proposal includes a temporary staging area (abutting the project site to the east) of approximately .39 acre to be used during construction for materials laydown. The parcel's Land use designation of Public/Quasi-Public allows for uses such as parks, City Hall, the community center, and the wastewater treatment plant, spray fields, and holding ponds. The project site is zoned Public/Quasi-Public (P), the purpose of which is to provide for a wide variety of use for the general public benefit such as City offices, corporation yards, wastewater treatment facilities, parks, quasi-public uses such as telephone, energy substations, and other uses determined by the Planning Commission to be similar in nature. Uses allowed in the P Zoning District require a use permit per Calistoga Municipal Code (CMC) 17.23.020.A.

The subject property is bordered to the north and east by the City of Calistoga water treatment facilities, public/quasi-public uses to the west, and Napa Valley Vine Trail/extension of Washington Street to the south. The Napa River is located approximately 800 feet to the south of the site, beyond the City's municipal wastewater spray fields. The City of Calistoga city limit is adjacent to the southeast corner of the property. Further west of the project site, north and south of Washington Street are existing commercial,

industrial, and residential uses. The nearest residential property is located across the Napa River, approximately 900 feet to the south, while the nearest commercial property is located approximately 1320 feet (0.25 miles) to the west.

PROJECT DESCRIPTION

The project proposes a hydrogen substation microgrid and associated site improvements on an approximately 0.71-acre portion of the property located at 204 Washington Street (see **Attachment 2** for 204 Washington Street Project Plans).



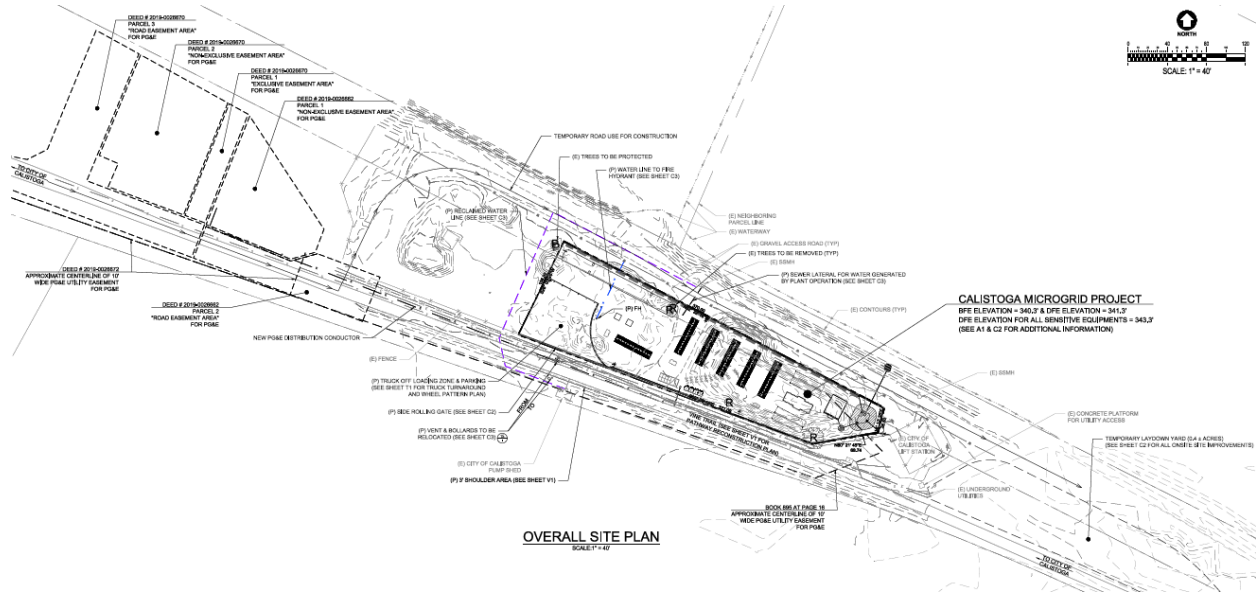
- Calistoga Resiliency Center (Project Site)
- Calistoga City Limits
- Napa County

Data source: City of Calistoga; ESRI Basemap

Project Components

The proposed hydrogen substation microgrid consists of a lithium-ion battery energy storage system (BESS) and hydrogen fuel cells with a liquid hydrogen storage tank to deliver 293 megawatt-hours (MWh) (8.5 megawatts (MW) of maximum power) during PSPS events. The system is designed to power approximately 2,000 electric customers for a period of 48 hours during high fire danger events planned outages including critical

municipal infrastructure such as fire and police stations, shared services, and traffic signals as well as other PG&E customers such as residents, hotels and businesses. The following is a site plan for the project components.



The site plan (refer to Attachment 2) positions the storage tank towards the rear of the property, with the row of fuel cell containers and hydrogen offload areas located towards the front. The BESS system consists of six containers, each with a bi-directional energy storage inverter with lithium iron phosphate (LFP) cells arranged into strings with a 1330 v-nominal voltage. Each container will have a fire strobe and alarm, a 2-hour rated firewall, and a water hose hookup. The hydrogen system consists of six 40' x 8' fuel cells rated at 1MW, inverters, and one 80,000 US gallon liquid hydrogen storage tank. All equipment will sit on concrete slabs (sizes vary from 6'x6' to 40'x8') that will be constructed with gravel in between.

Utility connections will provide for water hose connections at each container and a new approximately 470-foot PG&E power distribution conductor extending from the project site west to the existing PG&E facility (south of the Community Garden). The distribution conductor would be installed within a trench extending north of the existing Vine Trail west of the project site to the PG&E facility. The City's existing reclaimed water pipeline currently bisects the project site and would be relocated around the proposed facility as part of the project to maintain at least a 10-foot buffer between the project footprint and the relocated reclaimed water pipeline.

Additionally, a 20' x 16.8' utility shed, a rain garden, and stormwater detention basin will be installed on-site. As shown on the Stormwater Control Plan included as **Attachment 3**, the bio-retention facility is located in the southeast portion of the site, near the storage building. In addition, permeable pavements using turf blocks are proposed in the tanker offloading and parking areas. Gravel areas in between concrete pads will also allow for infiltration of stormwater.

An approximately 8-foot security fence is proposed through the combination of a CMU wall and preferred alternative screening material will be constructed on all sides of the facility and a security system with cameras, intrusion detection, and continuous remote monitoring will be provided. The project footprint will occupy approximately 30,375 square feet (0.71 acres) at operation. Refer to **Attachment 4** for more information on the proposed design alternatives of walls, fencing, and visual screening. Below is a section (Design Review Concept Guidance) dedicated to design review of the proposed walls, fencing and visual screening.

Hydrogen tank refueling will be accomplished via tanker truck. Each tanker truck (approximately 10,000 gallons) will take approximately four hours to offload. At the start of fire season or in advance of a PSPS event, the hydrogen tank would be filled while not in use. The hydrogen tank has the capability to be refilled while power is being generated such that operations can be extended without interruption to service should the PSPS event go longer than 48 hours. For ongoing maintenance, it is anticipated that approximately one tanker truck delivery of hydrogen will be required every four months.

The site has been previously disturbed, contains ruderal vegetation, stockpiled soils and materials, trees, unimproved access drive aisles, and is relatively flat. The existing enclosed facility adjacent to the eastern site boundary would be retained with the proposed project. Construction activities to install the microgrid facility include clearing the site, pad prep, and foundation work are expected to occur over six-to-eight-month construction period (estimated October 2023 – June 1, 2024). Stockpiling, staging, and temporary construction laydown yard would be placed on approximately 0.35 acres east of the project site. The applicant's grading plan indicates a project total of approximately 4,240 cubic yards of net spoils to be removed from site and placed at local landfill facility (Clover Flat). The project would result in the removal of four native trees and may require the removal or trimming of an additional four non-native trees to accommodate site improvements and relocation of the City's reclaimed water pipeline. Tree removal will be regulated by the existing regulatory requirements within CMC Chapter 19.01, which requires a Tree Protection Plan including identification of the applicable tree protection and replacement measures to compensate for the project's potential impacts on protected tree resources.

As part of the City's effort to process the application and conduct public health due diligence and preliminary environmental review, a number of studies have been conducted at the request of the City. These independent studies include topics such as hazard identification, hazard mitigation measures for operations of this facility and a quantitative risk analysis to assess safety impacts in the case of a hydrogen release. Some of these studies are confidential due to the nature of the information contained regarding safety and security. All of these studies have been reviewed by the appropriate City staff (Fire, Police, Public Works) and the City's contract building and safety experts. Where appropriate and based on the recommendations of staff and those building and safety experts, conditions of approval have been added to the plans presented herein for approval or in the conditions associated with the Use Permit to ensure the protection of public safety and security.

Access

The Project site is located on the north side of the Napa Valley Wine Trail multi-use path, approximately 600 feet east of the terminus of Washington Street near Calistoga Little League Tedeschi Field. Access at the terminus of Washington Street is presently restricted by gated access. Access to the proposed microgrid facility will be restricted to critical and maintenance personnel and hydrogen tanker fill operators. Tankers will be able to access the facility via an access easement (Deed #2019-0026662) from Washington Street.

CONSISTENCY ANALYSIS

The project's consistency with the City's plans, policies, and codes is evaluated below.

Calistoga General Plan

Land Use Designation

The site has a General Plan land use designation of Public/Quasi-Public. The designation allows for uses such as parks, City Hall, the community center, and the wastewater treatment plant, spray fields, and holding ponds.

The site is within the Lower Washington Character Area Overlay and subject to Land Use Considerations and Development Design Considerations identified in the General Plan Land Use Element including the following:

- Land Use Considerations: Land should be designated/reserved for future relocation of municipal facilities that will serve as an "anchor" at the eastern end of Washington Street. Future municipal facilities should include public parking.
- Development and Design Considerations: All overhead utilities shall be placed underground.

The project is consistent with relevant Land Use Element policies, including:

P2.1-1 All new development in the city shall comply with the policies of the individual land use designations in Section C of this Land Use Element.

P2.1-2 All new development on sites with overlay designations shall follow the overlay designation regulations in Section D of this Land Use Element to ensure that their development is in harmony with the surrounding environment.

P3.1-3 The approval of all development projects shall be coordinated with the provision of infrastructure and public services required to meet the needs of the development.

The project is consistent with relevant Public Services goals, policies, and objectives including:

Goal SER-1 Minimize loss of life and property from fires and medical emergencies.

P1 2-2 Major land use development proposals shall be reviewed for site design criteria and other law enforcement concerns.

Objective SER-2.3 Maintain and improve law enforcement services to keep up with Calistoga’s changing population.

Design Review Concept Guidance

The proposed project is subject to the City’s Fences, Walls, & Hedges Design Guidelines, per CMC Section 17.41.050. The proposed facility screening design is presented as four design concepts (refer to **Attachment 4**). As conveyed in **Attachment 5**, Staff find that all four design concepts meet the intent of the design review approval criteria. Planning Commission feedback is requested to provide direction for a preferred design alternative.

Procedurally, Planning Commission have two options:

1. Provide concept review guidance on a preferred design alternative and continue this hearing; or
2. Provide concept review guidance on a preferred design alternative and condition approval (refer to Condition of Approval 6, Exhibit A of Attachment 1) of DR 2022-4 to substantially comply with the guidance at the discretion of Staff.

Zoning Code and Development Standards

The project site is zoned Public/Quasi-Public (P). The intent of the P Zoning District is to provide for a wide variety of use for the general public benefit such as City offices, corporation yards, wastewater treatment facilities, parks, quasi-public uses such as telephone, energy substations, and other uses determined by the Planning Commission to be similar in nature. Uses allowed in the P Zoning District require a use permit per CMC 17.23.020.A.

The following table compares the project’s design with the development standards of the P Zoning District.

P District Development Standard per Zoning Code		Project	Compliant, as conditioned
Minimum front yard	20 feet	>520 feet	Yes
Minimum side yard	None	N/A	Yes
Minimum rear yard	None	N/A	Yes
Maximum floor area ratio	0.80	N/A	Yes
Maximum building and structure height*	30 feet	Approx. 12 feet (storage shed)	Yes
Parking	Determined by Planning Commission**	1 truck off-loading and parking area for # of vehicles	Yes

**Building height for a building with a gable or hip roof is measured at the distance from grade to the intersection between the wall and the roof eave plus half of the distance between the roof eave and the roof ridge, per CMC Section 17.38.040.*

***Per CMC 17.36.020 parking requirements for uses not specifically listed in CMC Chapter 17.36 shall be determined by the Planning Commission based upon the requirements for comparable uses listed.*

ENVIRONMENTAL REVIEW

As demonstrated in the CEQA Exemption Analysis, prepared by M-Group, dated May 31, 2023, included as **Attachment 6**, the proposed Project is exempt from CEQA under the following categorical exemptions in the State CEQA Guidelines: Class 1 (Section 15301) Existing Facilities; Class 2 (Section 15302) Replacement or Reconstruction; and Class 3 (Section 15303). Specifically, the Project qualifies for these CEQA exemptions for the following reasons:

- The Project involves negligible expansion of the existing use;
- The Project replaces an existing backup diesel fueled microgrid that is capable of generating 8MW with an 8.5MW capacity hydrogen fueled microgrid for backup power generation during PSPS;
- The Project is limited to the placement of equipment consisting of a battery energy storage system, fuel cells, a liquid hydrogen storage tank, and ancillary improvements to accommodate the microgrid;
- The Project activities would occur within an underutilized portion of a site that is currently occupied by existing public and quasi-public uses and supportive utility uses; and
- There are no exceptions to the exemption that would render the exemption(s) inapplicable.

As further demonstrated in Attachment 6, none of the exceptions found in CEQA Guidelines Section 15300.2 apply to negate any of those exemptions.

PUBLIC COMMENTS

As of the writing of this staff report, no comments have been received.

FINDINGS

To reduce repetition, the basis for making the required findings to approve the project's requested entitlements are contained in the attached Draft Resolution (see **Attachment 1**).

RECOMMENDATIONS

Based on the information and analysis contained in this report and in the attached CEQA Exemption Analysis, Staff recommends that the Planning Commission adopt a resolution deeming the project exempt from CEQA and approving use permit UP 2022-11 and design review application DR 2022-4, pending Planning Commission acceptance of a concept design alternative, for a proposed hydrogen substation microgrid on an approximately 0.71-acre footprint located at 204 Washington Street, with conditions. Alternatively, the Planning Commission may continue the design review application DR 2022-4 with feedback on the proposed concept design alternatives.

If the project is approved and deemed exempt from CEQA as recommended, staff will file a Notice of Exemption with the State Office of Planning and Research and with the County Clerk. A minute action will suffice to affirm and support Staff's determination of an exemption with recitals in the attached Resolution approving the Use Permit entitlement and stating that the project has been found to be exempt.

ATTACHMENTS

1. Draft Resolution
2. 204 Washington Street Application and Project Plans
3. 204 Washington Stormwater Control Plan
4. Concept Design Review Proposed Alternatives
5. Concept Design Review Matrix
6. CEQA Exemption Analysis, prepared by M-Group, dated June 7, 2023