

# Planning Commission Staff Report

March 8, 2017  
Item 5.a.

**SUBJECT:** P16-1854 and P16-1876

**APPLICANT:** Bloom Energy

**PROPERTY OWNER:** Kaiser Permanente

**PURPOSE:** Applications for Design Review and Conditional Use Permit approvals to construct and operate a medium-sized fuel cell facility totaling 1.2 megawatts

**LOCATION:** 5840 Owens Drive

**GENERAL PLAN:** Business Park (Industrial/Commercial and Office) and Mixed Use

**ZONING:** PUD-I/C-O (Planned Unit Development – Industrial/Commercial-Office) District

**EXHIBITS:**

- A. [Draft Conditions of Approval](#)
- B. [Narrative/Project Plans/Site Photographs/Photo Simulations dated "Received December 13, 2016"](#)
- C. [Hacienda Owners Association Approval Letter dated "Received January 9, 2017"](#)
- D. [Location and Notification Map](#)

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## RECOMMENDATION

Staff recommends that the Planning Commission approve Design Review application P16-1854 and Conditional Use Permit (CUP) application P16-1876 by making the findings within this report, subject to the draft conditions of approval listed in Exhibit A.

## EXECUTIVE SUMMARY

The applicant, Bloom Energy, requests Design Review and CUP approvals on behalf of Kaiser Permanente to construct and operate a medium-sized fuel cell facility totaling 1.2 megawatts at 5840 Owens Drive. Medium-sized fuel cell facilities require Planning Commission review and approval of a CUP. As proposed, staff believes this use is consistent with the intent of the zoning district and will be compatible with the surrounding uses. Conditions of approval have been identified which will ensure that the safety and general welfare of the surrounding area, and the City in general, is maintained.

## BACKGROUND/HISTORY

In 2003, the City Council approved a Generator Siting Ordinance (GSO) to adopt regulations and performance standards for electricity generator facilities such as emergency backup

generators and fuel cell facilities. The GSO also included definitions and processing requirements for such facilities based on their size and/or capacity and to also allow staff to evaluate any environmental impacts, including those related to clean fuel compliance, air quality, and noise. The adopted GSO defines medium-sized fuel facilities as those that are either: (1) 1 to 10 megawatts in combined total size; or (2) 11 to less than 50 megawatts in combined total size, if no electricity is exported off-site. The subject site is zoned PUD-I/C-O District and follows the I-P (Industrial Park) District standards and uses. Medium-sized fuel cell facilities are conditionally permitted within this District with approval of a CUP. Accordingly, the CUP for this application is before the Planning Commission for consideration.

The applicant has also applied for a Design Review application to modify the existing building exterior and landscaping as part of the construction of the fuel cell facility. Design Review applications of this nature are typically processed at staff level; however, staff is requesting the Planning Commission to take action on the Design Review request with the CUP in order to evaluate the whole proposal comprehensively.

### **SITE AND AREA DESCRIPTION**

The subject building at 5840 Owens Drive is located on the approximately 41.53-acre Kaiser Permanente campus, on the south side of Owens Drive, within Hacienda (Figure 1). The single-story building, which is Kaiser's data center, is generally square in shape; however, it is encompassed by a circular, open-air colonnade, giving the building a circular appearance from street-level. The building architecture is generally industrial in nature and is clad primarily in glass and a sheet-metal-type paneling (see photos in Exhibit B). Landscaping surrounds all sides of the building and consists primarily of turf and trees. The site is accessible from two driveways off Owens Drive. Hacienda includes a mix of uses such as: professional offices, light manufacturing and industrial uses, religious facilities, private schools, and sports and recreational facilities. Residential uses exist approximately 500 and 800 feet to the west and south (Essex Sites 1 and 2, respectively).

### **FUEL CELL DEFINITION**

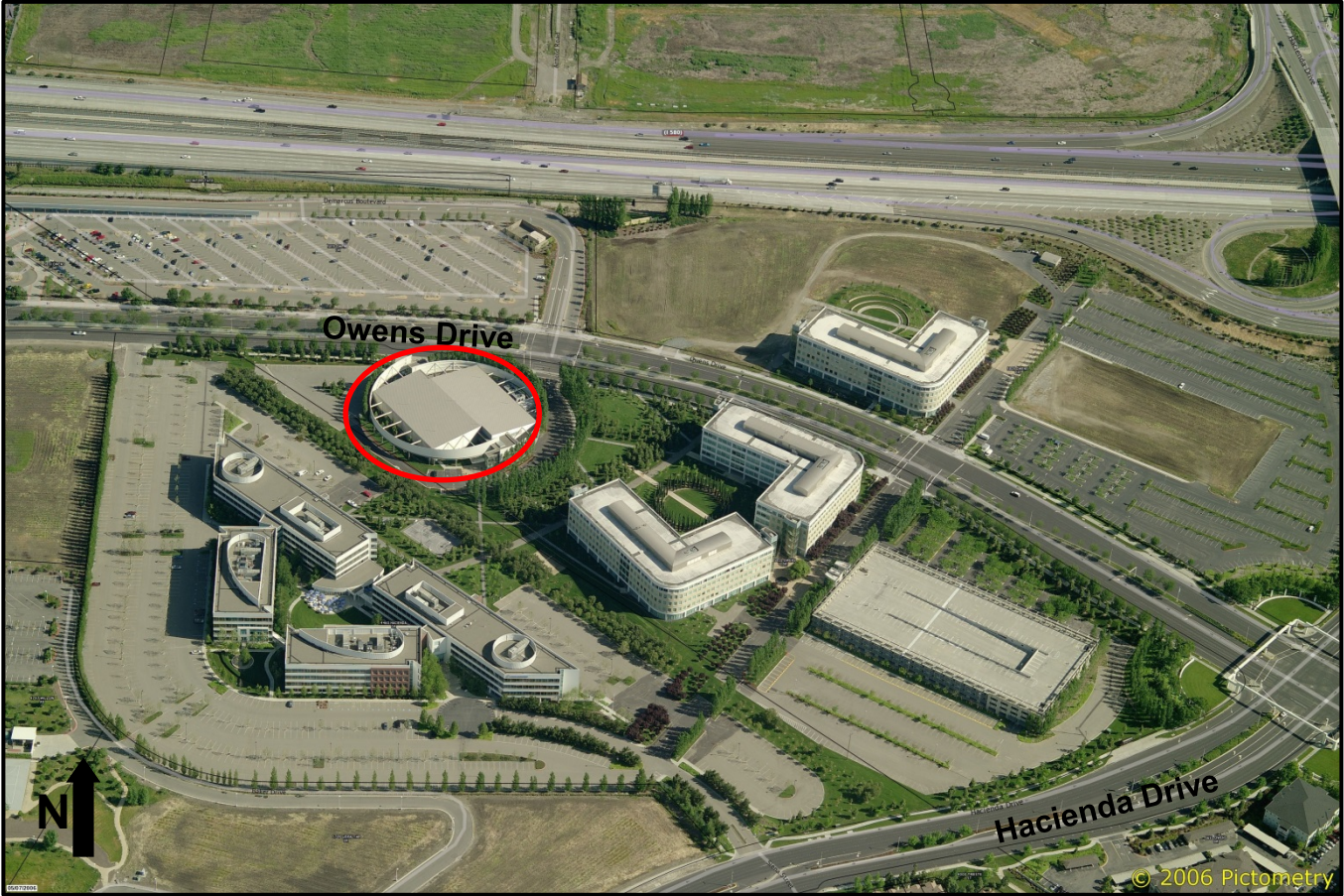
A fuel cell is a quiet and clean, on-site electricity generator, that takes a fuel, in this case, natural gas, and through a chemical reaction, creates usable electricity for a building or site without pulling the electricity from the existing local energy grid. Fuel cells complete this process without the need for combustion, unlike a conventional electrical generator, and therefore, they operate more efficiently and quietly, and with significantly less air pollution. While not intended to fully replace reliance on the local energy grid, the draw on that system for a building or site is significantly reduced when fuel cells are utilized.

### **PROPOSED PROJECT**

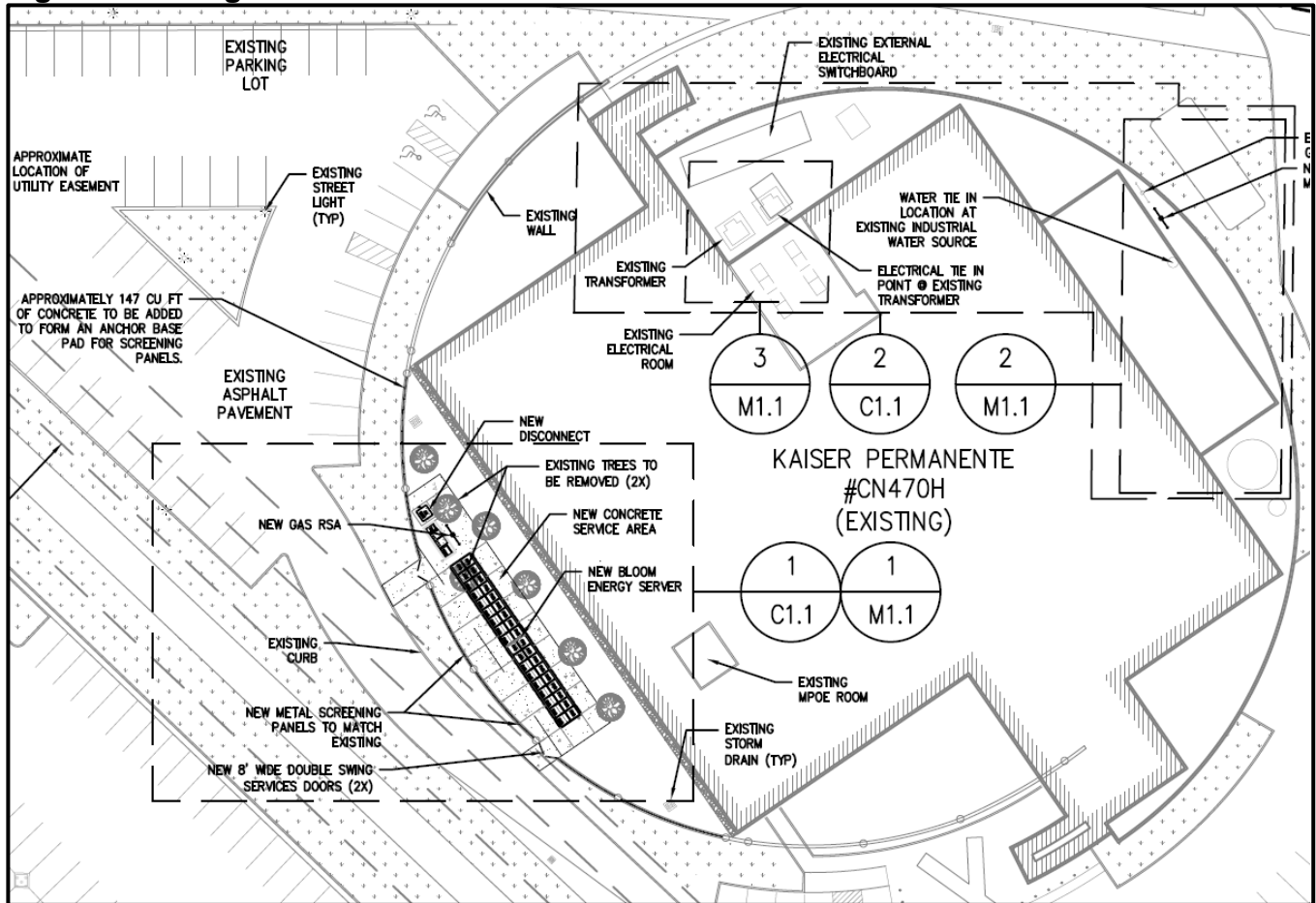
The applicant proposes to locate four fuel cells totaling 1.2 megawatts within the existing landscape area on the southwest side of the subject building. Each of the fuel cells would operate 24 hours a day/7 days a week, be approximately 33 feet long by 8.5 feet wide by 7 feet tall, and would sit on a grade-level concrete pad within the existing landscape area as shown in Exhibit B. The existing circular colonnade on that side of the building would also be modified to add metal screen panels, matching the metal screen panels that already exist on the front and east side of the building. Please see Exhibit B for a photo simulation of the screen panels. As proposed, the fuel cells would not be visible from street-level. Two small pine trees, four large shrubs and turf would be removed as part of the project.

Please see the site plan below (Figure 2) and the attached narrative and project plans (Exhibit B) for additional information on the proposed use.

**Figure 1: Aerial Photograph of Kaiser Permanente Campus**



**Figure 2: Enlarged Partial Site Plan**



**STAFF REVIEW/ANALYSIS**

Conditional uses are those uses which, by their nature, require special consideration so that they may be located properly with respect to the objectives of the Municipal Code and with respect to their effects on surrounding properties. In order to achieve these purposes, the Planning Commission is empowered to approve, conditionally approve, or deny applications for CUPs.

Land Use

When the City adopted its GSO, the decision makers at the time wanted to ensure that all potential environmental impacts created by medium- and large-sized fuel cell facilities would be adequately evaluated and mitigated; thus, facilities of this size were designated as conditional uses to allow for appropriate conditions to be placed on them to mitigate any potential impacts. Based on staff’s research of the GSO adoption process, the primary environmental factors of concern were clean fuel compliance, air quality, and noise. These factors are discussed below.

One of the primary concerns in reviewing a CUP application is the effect of a proposed use on surrounding uses. As discussed below, staff has analyzed the components of the proposed fuel cell facility that would most likely affect surrounding uses and has recommended conditions of approval to ensure compliance and/or to mitigate any potential impacts. Staff has previously approved other similar, but smaller (less than 1 megawatt) fuel cell facilities in other locations within Hacienda Business Park and in other locations in the City and staff is not aware of any

problems related to these facilities. Although this particular fuel cell facility is larger than others approved in Hacienda, the basic operational characteristics are similar. Therefore, if the CUP were granted, staff believes that the fuel cell facility would be compatible with the surrounding uses.

Should future problems arise with the fuel cell facility, the City would have the ability to bring the CUP back to the Planning Commission for additional mitigation, or possible permit revocation, if necessary. Based on past experience with similar fuel cell facilities, staff believes that the fuel cell facility is a compatible use for this area. In addition, staff has included conditions of approval that will ensure that the fuel cell facility would not generate air quality, noise, or visual impacts such that surrounding uses would be adversely affected. Therefore, from a land use perspective, staff finds the fuel cell facility to be an appropriate ancillary use for the subject property, as conditioned.

#### Clean Fuel and Air Quality

According to the project plans, the proposed fuel cell units eliminate most air pollutants that are found in combustible energy creation methods. Fuel cell facilities of this type generate minimal air emissions. To ensure that fuel cells generate de minimus volumes of pollutants, the GSO not only requires all medium and large electricity generation facilities to use clean fuel sources such as natural gas or bio-diesel, but to also comply with all current emission control requirements specified by the Bay Area Air Quality Management District (BAAQMD) regulations in effect at the time a Building Permit is issued. Staff is recommending conditions of approval ensuring compliance with these provisions.

#### Noise

Fuel cell facilities generally do not create any significant noise, especially at levels that would exceed City standards. Specific to this facility, the proposed units would generate 70 decibels at six feet from the units (similar levels to a hair dryer at the same distance) and 55 decibels at 50 feet from the units. These decibel levels also account for any reformation activities that would occur within the units. Staff notes that decibel levels typically lessen by three or more decibels for every 50 feet a sensitive receptor is distanced from the noise source. The nearest residential uses are located approximately 500 and 800 feet to the west and south (Essex Sites 1 and 2, respectively) from the proposed site and would not be exposed to elevated noise levels associated with the proposed fuel cell (approximately 40 and 22 decibels, respectively based on analysis above). Other fuel cells have been approved in similar locations and staff is not aware of any noise complaints associated with those facilities. Therefore, staff believes the proposed facility will not create any significant impacts and will operate well within City noise standards. Staff has recommended a condition of approval that allows the use permit to be reviewed again to address any future complaints regarding noise.

#### Design Review

As previously described, the proposed fuel cell units will be screened entirely by metal screen panels, matching the screen panels that already exist on the building. The metal panels will create a solid screen below the existing colonnade and will be complementary to the existing building architecture. Staff believes the proposed screening is appropriately sized to screen the fuel cell units and associated equipment/improvements. Staff also believes that the proposed site modifications would not negatively affect the subject site, the existing uses, or the surrounding area. However, staff is recommending a condition of approval requiring the

applicant to submit a landscape plan with the building permit plan set to enhance the landscaping on the outside of the new screen panels, as well as to offset the removal of the two pine trees as part of the project.

## **FINDINGS**

The Planning Commission needs to make the following findings prior to the granting of a Conditional Use Permit:

**A. That the proposed location of the conditional use is in accordance with the objectives of the zoning ordinance and the purpose of the district in which the site is located.**

Some of the objectives of the zoning ordinance are to: foster a harmonious, convenient, workable relationship among land uses, protect existing land uses from inharmonious influences and harmful intrusions, and ensure that public and private lands ultimately are used for the purposes which are most appropriate and beneficial to the City as a whole. The subject building is located on the Kaiser Permanente campus, within Hacienda. Other similar, but smaller, fuel cell facilities have been approved on similar parcels within Hacienda, and have operated without issue. The subject fuel cell facility would be larger than the previously approved facilities, but would have similar operational characteristics. Therefore, the fuel cell facility would be compatible with the surrounding uses. As proposed and conditioned, the fuel cell facility would not generate air quality, noise, or visual impacts such that surrounding uses would be adversely affected. Therefore, staff recommends that the Commission make this finding.

**B. That the proposed location of the conditional use and the conditions under which it would be operated or maintained will not be detrimental to the public health, safety, or welfare, or materially injurious to the properties or improvements in the vicinity.**

Fuel cell facilities are located elsewhere in Hacienda Business Park and staff is not aware of any problems related to these facilities. Fuel cell facilities generally do not subject surrounding uses to air pollution, noise, heavy truck traffic, hazardous odors or emissions, or other objectionable influences. As proposed and conditioned, staff believes the proposed use will not detrimentally affect surrounding uses. A condition has been included that would require the applicant to mitigate any future nuisances as a result of the proposed fuel cell facility. Therefore, staff recommends that the Planning Commission make this finding.

**C. That the proposed conditional use will comply with each of the applicable provisions of the zoning ordinance.**

The site's PUD-I/C-O zoning conditionally permits the establishment of medium-sized fuel cell facilities. In addition, the proposed fuel cell facility complies with all relevant sections of the zoning ordinance as described in this report. Granting a CUP for the proposed fuel cell facility would be consistent with the City's ability to regulate zoning as listed in Municipal Code Chapter 18.124. Therefore, staff recommends that the Planning Commission make this finding.

## **FINDINGS SPECIFIC TO MEDIUM-SIZED FUEL CELL FACILITIES**

The Planning Commission also needs to make the following findings prior to the granting of a Conditional Use Permit for a medium-sized fuel cell facility:

**D. The facilities shall use the best available control technology to reduce air pollution.**

As required by the City's GSO, the fuel cell facility will use clean natural gas as its fuel source, eliminating most air pollutants generated by other conventional electricity generating methods. Additionally, conditions of approval have been included to ensure the fuel cell facility will comply with all Bay Area Air Quality Management District (BAAQMD) regulations. Therefore, staff recommends that the Planning Commission make this finding.

**E. The facilities shall not create any objectionable odors at any point located outside of the property plane where the facilities are located.**

The fuel cell facility will be entirely self-contained and will not use any combustion during the electricity generating process. As a result, the fuel cell would not generate objectionable odors associated with conventional electricity generating methods. Therefore, staff recommends that the Planning Commission make this finding.

**F. The facilities shall not exceed a noise level of 45 dBA at any point on any residentially zoned property outside of the property plane where the facilities are located.**

Fuel cell facilities generally do not create any significant noise, especially at levels that would exceed City standards. Based on the analysis within the staff report, the nearest residential uses are located approximately 500 and 800 feet to the west and south (Essex Sites 1 and 2, respectively) from the proposed site and would not be exposed to elevated noise levels associated with the proposed fuel cell (approximately 40 and 22 decibels, respectively). Other fuel cells have been approved in similar locations and the City is not aware of any noise complaints associated with those facilities. Therefore, staff believes the proposed facility will not create any significant impacts and will operate well within City noise standards. Staff has recommended a condition of approval to ensure compliance. Therefore, staff recommends that the Planning Commission make this finding.

**G. The facilities shall be cogeneration or combined cycle facilities, if feasible.**

The fuel cell facility is designed to only use natural gas for conversion to electricity for use by the specific building at 5840 Owens Drive and would reduce dependence on the existing local electricity grid. Cogeneration or combined cycle facilities usually involve the use of a heat engine to create both electricity and useful heat, which is not the purpose of this facility. These processes would potentially create adverse impacts to the surrounding areas, specifically air quality and noise. Therefore, staff believes that it would not be feasible to utilize a cogeneration or a combined cycle facility at this location and recommends that the Planning Commission make this finding.

**H. Toxic and hazardous chemicals shall not be routed through existing or proposed residential neighborhoods.**

The fuel cell facility will utilize natural gas already available at the site to create electricity. No substantial quantities of toxic or hazardous chemicals will be routed through existing or proposed residential neighborhoods (or any other areas of the City). Therefore, staff recommends that the Planning Commission make this finding.

**I. In no case shall electricity generator facilities and fuel cell facilities exceed 49.9 megawatts in size. If there are electricity generator facilities and fuel cell facilities on site, in no case shall the aggregate wattage of the facilities exceed 49.9 megawatts in size.**

The fuel cell facility will have an aggregate wattage of 1.2 megawatts. Therefore, staff recommends that the Planning Commission make this finding.

**J. The fuel source for electricity generator facilities shall be natural gas, bio diesel, or the byproduct of an approved cogeneration or combined cycle facility.**

The fuel cell facility will use natural gas as its fuel source. Therefore, staff recommends that the Planning Commission make this finding.

**K. On a site with fuel cell facilities, medium fuel cell facilities shall not be permitted unless the aggregate wattage of the two facilities is either: (1) 10 megawatts or less, or (2) if the aggregate wattage is greater than 10 megawatts, no electricity is exported off site.**

The fuel cell facility will have an aggregate wattage of 1.2 megawatts. Therefore, staff recommends that the Planning Commission make this finding.

**ALTERNATIVES**

The site conditionally allows medium-sized fuel cell facilities with approval of a CUP by the Planning Commission. The applicant seeks to construct a medium-sized fuel cell facility on the site. Staff believes this use is consistent with the intent of the underlying zoning district. There are other fuel cell facilities within the City that have been operating without issue. However, other alternatives could include:

1. The Planning Commission could deny the CUP, and the property owner could reduce the cumulative size of the fuel cell facility to less than one megawatt, making it a permitted use.
2. The Planning Commission could deny the CUP and require the applicant to utilize another type of alternative electricity generating system such as photovoltaic, which Kaiser is exploring for this site and other locations within the City.

Alternative 1 would preclude the applicant from establishing a medium-sized fuel cell facility; however, it would not completely preclude the applicant from locating a fuel cell facility on the site, as any fuel cell facility under one megawatt in size would be a permitted use. A reduction to less than one megawatt of generation capacity would not result in fuel cell operations that are fundamentally different from those currently proposed, and would still require physical modifications to the site. In addition, a smaller facility would not generate as much alternative



energy as the proposed facility and would result in reduced environmental benefits. Since the anticipated outcome between the proposed fuel cell facility and Alternative 1 would not be significantly different and the proposed fuel cell facility would not create any significant adverse impacts to the surrounding areas, staff believes the proposed fuel cell facility is appropriate for the site and that the alternative should not be pursued.

**PROS/CONS**

PROS	CONS
Project provides a clean and sustainable alternative energy source for the subject site/building that reduces reliance on the existing local electricity grid.	Project would remove site landscaping and replace it with structures, equipment, and a screen wall, slightly reducing the visual quality of the site.
Project is consistent with zoning regulations and would not adversely affect surrounding uses.	

**PUBLIC NOTICE AND COMMENTS**

Pursuant to Pleasanton Municipal Code requirements for medium-sized fuel cell facilities, notices of this application were sent to surrounding property owners and tenants within a 1.5 mile radius of the site. Staff has provided the location and noticing map as Exhibit D for reference. At the time this report was published, staff had not received any public comments about the project.

**HACIENDA OWNERS ASSOCIATION**

The Hacienda Owners Association has reviewed the application for the fuel cell facility and found that it is in substantial compliance with the Hacienda Guidelines set forth in its Covenants, Codes & Restrictions (the CC&Rs). The Association provided an approval letter attached as Exhibit C.

**ENVIRONMENTAL ASSESSMENT**

This project is categorically exempt (Section 15303, New Construction or Conversion of Small Structures) from the requirements of the California Environmental Quality Act (CEQA) because associated modifications on the site would be minor and the project would not result in significant environmental impacts. Therefore, no environmental document accompanies this report.

**SUMMARY/CONCLUSION**

As proposed, staff believes that the proposed use will be compatible with the surrounding businesses and will not detrimentally affect the surrounding uses or residential properties. Conditions of approval have been included which will ensure that the safety and general welfare of the surrounding area, and the City in general, is maintained. Staff believes that the facility will lessen the site's dependence on the local energy grid (and other non-renewable energy sources) and that the proposed location is appropriate. Additionally, the proposed site modifications will be adequately screened from views along Owens Drive, and that screening is compatible with the existing building architecture.

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