
Advancing Fuel Cell Electric Vehicles in San Francisco and Beyond Hydrogen Permitting Case Study

This case study discusses activity to streamline permitting processes for station development among Bay Area authorities having jurisdiction (AHJs) as part of the U.S. Department of Energy-funded grant program, *Advancing Fuel Cell Electric Vehicles in San Francisco and Beyond*.

Streamlining permitting processes has been successful in reducing soft costs and supporting market transformation for residential solar and electric vehicle charging infrastructure installations, which generally require non-discretionary electrical and building permits. State law required California AHJs to adopt streamlined permitting for EV charging stations by September 2017.

AHJ Approaches

In practice, we found that permitting liquid or gaseous fueling stations is much more varied and context-dependent in AHJs, involving not just planning and building departments, but also zoning determinations, fire plan safety checks, design review, and public outreach, including community meetings. Examples from 2017 show a range of approaches:

- A proposed station in Citrus Heights, California was allowed concurrent review by planning, building, and fire safety officials and received approval to build within a few months.
- A proposed station in Berkeley, California required an outside consultant to prepare an additional California Environmental Quality Act (CEQA) review (at the applicant's expense) and only allows sequential review of applications.
- Three proposed stations in San Francisco were concurrently reviewed by planning, building, and fire safety officials for a fee. That fee and the potential time savings are forfeited if the permit is sent back to another department for a second round of review.
- A proposed station in Mountain View, California required several plan reviews and took over a year to permit.

Most importantly, staff at AHJs view hydrogen station permitting as a one-off project to be approached based on local knowledge and political context. AHJ staff have been willing to discuss their experience, but there was little interest in documenting local gasoline or CNG station permitting processes to support a streamlined process, which would need local adoption.

AHJ Interviews

Since the initial approach of documenting gasoline/CNG permitting processes with the goal of designing a streamlined process across several AHJs was not successful, Clean Cities staff attempted to learn what would be useful to planning and building officials. We reached out to local planning departments that have already permitted hydrogen stations to gain a better understanding of barriers and opportunities. Of those AHJs contacted, most did not respond, one agency could not locate a record of permits for the station in question, and one agency agreed to be interviewed.

The hydrogen station in the city of Mountain View was one of the most difficult to permit—it took over a year. The managers of the planning and building departments made time for a one-hour interview in

hopes that their input might benefit others. Mountain View staff had three main suggestions to future station developers:

- Select an appropriate site per local planning rules
- Work with an experienced station development consultant
- Use only approved/listed components

AHJ Education

Since we were not able to produce a streamlined permitting process, we looked for another way to provide permitting best practices to Bay Area AHJs. Staff reached out to the Bay Area Planning Director's Association (BAPDA), whose membership includes planners and planning directors at most of the nearly 100 AHJs in the Bay Area. BAPDA organizers were very pleased to receive the information, which was sent to their members via the message below:

Dear Planning Director,

I want to make sure you are aware of the hydrogen fueling station developments in your community and provide resources that will help in evaluating and permitting them.

Currently there are 9 hydrogen fueling stations operating in the Bay Area, with 12 more in permitting or construction to meet growing consumer demand. As I'm sure you are aware, California is planning on developing a network of 200 stations by 2025 to reach its goal of 5 million electric cars by 2030.

A brief overview on hydrogen fueling and fuel cell electric vehicles (FCEVs) can be found [here](#), and I have provided a list of other helpful resources below.

Please feel free to contact me with questions. The [San Francisco Clean Cities Coalition](#) is here to help.

Hydrogen Fueling Station Permitting Resources

- The Governor's Office of Business Development [Zero Emission Vehicle Team](#) provides technical assistance to station developers and local governments, and publishes a best practice guidance: [California Hydrogen Station Permitting Handbook](#).
- The U.S. DOE's Hydrogen Tools Portal website includes tools and content on the safety aspects of hydrogen and fuel cell technologies to inform those approving or using systems and facilities, such as local governments.
- The California Fuel Cell Partnership is a public-private non-profit member organization that tracks market information and maintains a California hydrogen station map (which also shows the status of each station).
- This information is provided by the [San Francisco Clean Cities Coalition](#) as part of a U.S. Department of Energy grant to support hydrogen station development in the Bay Area and beyond. We can help connect you to the right resources. Keep up to date and sign up for our monthly [Hydrogen Newsletter](#).