



California Hydrogen Car Owners Association (CHCOA) Proton Monthly – October 2023 – Issue A

October 24, 2023

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California Hydrogen Station-o-Meter

Corney, yes. Very corny, sadly yes.

But with the passage of Assembly Bill 126 earlier this month, it only seemed appropriate to track the growth of hydrogen fueling stations serving light duty (LD) FCEVs, at least until 2030. For goodness sake! If we can't build an additional 146 stations statewide with \$106 M taxpayer dollars (which doesn't include additional sums of very large amounts of expected private capital) then there really is something wrong with us. When we started CHCOA last February we stated our firm belief that, ***"it is undeniable that the lack of reliable hydrogen fueling infrastructure in California is single handedly thwarting the success of these cars in the U.S."*** It was true then, and it is no less true now.

We should not forget that we are equal partners with government and industry in this quest. They provide the money and the technical expertise, but it is imperative that we drivers supply regular, frequent, and reliable advocacy.

We'll track the progress using this Station-o-Meter from now until July 2030. Please help us reach the goal of 200 open-retail and reliable stations by that date.

So, what can we do in the near term? Please make every effort to take part in two critically important events for drivers of LD FCEVs.

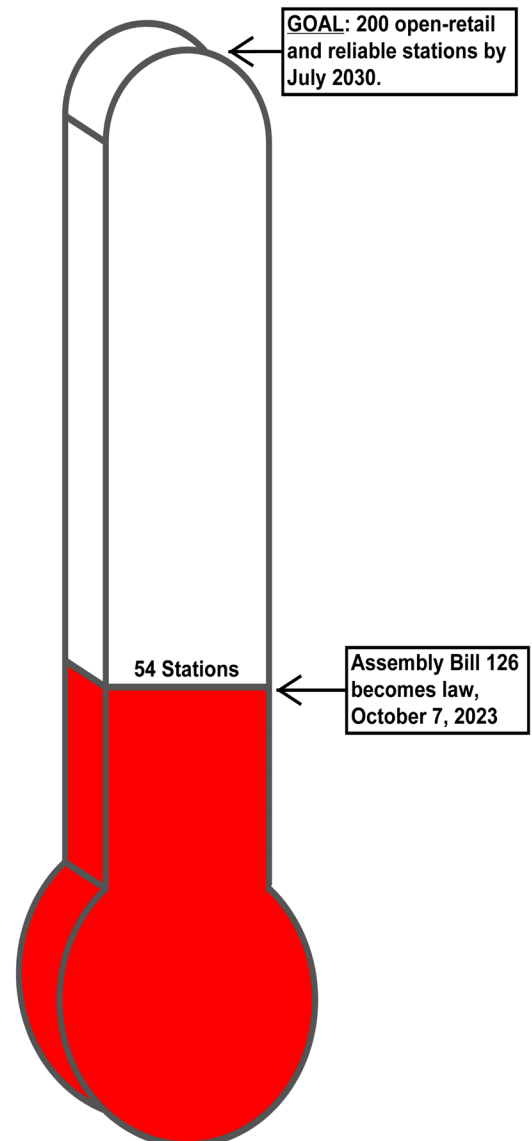
- 1) Nov. 6 – Joint CA Agency FCEV Customer Experience Workshop: This is a virtual-only event. Two of the segments on the preliminary agenda are "Station Development" and "Public Comment".
- 2) Dec. 3 – Light-Duty FCEV Drivers Town Hall: Co-sponsored by the office of CA State Senator Newman, CHCOA, et al. As possible, this will be both in-person and virtual.

More information on these soon.

A bookkeeping item: In order to catch up on our CHCOA reports, we will have two issues this month, this issue (Issue A) and next week, Issue B.

- Greg and Bobbie Cane

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Intrepid Protoner of the Month



Steve Mirkin, Intrepid Protoner of the Month

Steve Mirkin owns an FCEV. This statement is not particularly astounding, except for the fact that for many years, Steve was a proud owner of a Subaru WRX, even attending the “Subiefests” held every year. He had no plans to ever change to a different brand of car. But, an ongoing interest in hydrogen, and hydrogen cars, finally proved too much for him. So, in February, 2023, he sold his Subaru, and purchased a Toyota Mirai. He has not looked back.

Steve’s interest in hydrogen began in 1974, when he wrote a research paper for his English 101 class at Los Angeles Valley College entitled: “Hydrogen: An Alternative Fuel”. He still has this report, which he kept all these years in a file along with other information about H₂ cars, and showed it to us during our chat with him at a coffee shop not far from where he lives in North Hollywood, CA last August.

During the intervening years, Steve worked in the precious metals industry, but his interest in hydrogen never left him. In addition to his college report, he kept other information about hydrogen. He showed us a file he had about a company in the late 70’s called “Consumers Solar Electric Power Corporation”. This company was going to sell systems to generate hydrogen, which would then in turn be sold to service stations to convert cars from gas to hydrogen fuel. However, the group eventually was exposed as a scam, and two officers of the firm were accused of fraud. He still had the LA Times article about this.

His hopes were revived when in 2004, then-Governor Arnold Schwarzenegger unveiled his “Hydrogen Highway Initiative”. This Initiative was going to build up to 200 stations from CA to British Columbia, but the program moved very slowly because of technological issues. In the meantime, the electric car industry took off. Still, some hydrogen stations were built both in California and British Columbia.

Intrepid Protoner (cont.)

In the last few years, as H₂ technology improved, and more FCEV stations were being built throughout California, he took the plunge and left his beloved Subaru behind.

He and his wife really love the car, and haven’t had too many issues filling it up (as of August, when we had our interview). He said they, “fill up when it’s ½ full; do not try to take chances with it; and so far, we haven’t had any trouble filling it.” He mentioned that there were multiple documents to sign at the Toyota dealer regarding the fact that fueling could be an issue, so they were not expecting it to be easy. But, this has not deterred them; they want to do their part for the climate. They drive the car to San Diego often, where they have a daughter and grandson. After retirement, Steve started volunteering at the Children’s Hospital in Los Angeles and then took a part time job working in the “Literally Healing” department; they give free books to kids in the hospital. In addition, he was in the process of organizing a blood drive at the hospital at the time of our chat.

We commend Steve for his interest and dedication to hydrogen cars all these years!

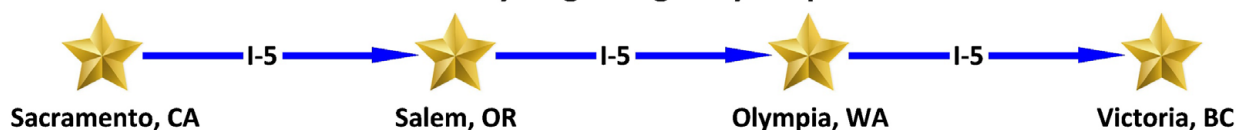
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IRS Corner

We are happy to announce that the Internal Revenue Service has made an honest association out of us 😊. On 9/18/23 we received our official notification that we are a 501 (c)(6) [Nonprofit Mutual-Benefit Corporation](#). As a (c)(6) organization, we are permitted to lobby. Because of the way the law is written, however, donations are not tax deductible. In future weeks we will be adding a donation button on the webpage for those that would like to assist with expenses, but we will remind donors of this tax provision.

Join us on the Hydrogen Highway - September 2025





A Conversation with CARB

August 7, 2023

Interview with Andrew Martinez, PhD, California Air Resources Board (CARB)

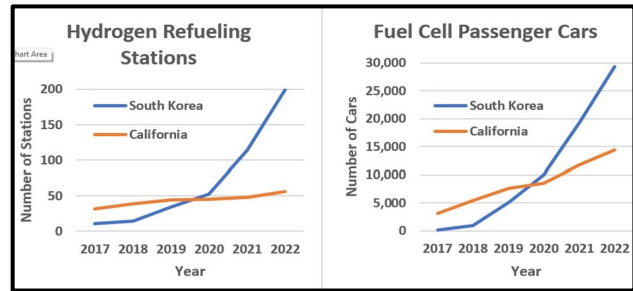
Andrew works in the Zero Emission Vehicles (ZEV) Infrastructure Section. This section deals with light duty fuel cell electric vehicle (FCEV) fueling and electric vehicle (EV) charging projects. Their focus is 2026 and onwards to reach the 2035 goal of all new vehicles sold in California being only ZEVs .

CARB works in conjunction with the California Energy Commission (CEC). CEC provides funding for infrastructure development. CARB prepares the Annual Evaluation Report, and helps CEC decide where new stations should be constructed. They handle the station testing requirements, making sure that they meet industry standards.

We asked Andrew his opinion as to why it is so difficult to keep FCEV stations online. He answered that there are many reasons: Equipment is wearing out faster than expected, there are a limited number of technicians, it is difficult to obtain and maintain replacement parts, and the supply chain has not quite recovered from the pandemic. The high temperatures in California are also a factor, since hydrogen must be chilled to negative 40 degrees C prior to fueling the vehicle. He said the station owners themselves have been surprised at the difficulties that they're having with the reliability of the equipment.

In preparation for the Hearing in August of the *Senate Select Committee on Transitioning to a Zero-Emission Energy Future*, we asked Andrew if there was any evidence of a country with a successful hydrogen car story. He listed several countries that have H₂ cars, (Japan, Germany, China, and South Korea), but only South Korea can really be compared to the US because it has many similarities to the US in funding structure and government requirements. South Korea has been very successful – they have more stations and more vehicles

Conversation with CARB (cont.)



Comparison – S. Korea and California H₂ Fueling Station and Vehicle Growth

than CA (see graph). Their government has given generous support to FCEVs, and, as a result, they are becoming leaders in the hydrogen world. We presented this hopeful information at the Hearing.

We discussed with Andrew the Low Carbon Fuel Standard (LCFS); (we will come back to this important but complicated topic in a future newsletter).

In the last few minutes of the conversation, we asked if anything can be done in the near future to provide relief to FCEV drivers, e.g., the use of mobile fuelers for offline stations. He explained that funding agreements with the State initially spelled out the operational criteria for H₂ stations, and mobile fuelers were not part of that criteria. However, it does sound like the framework set up by the State for this program is evaluated and changed occasionally, so there is some possibility that those requirements could be changed to include a directive that station owners provide mobile fuelers at their stations when they've been offline for a certain amount of time.

Hydrogen Funny Pages



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