DOCKETED	
Docket Number:	19-ALT-01
Project Title:	2020-2021 Investment Plan Update for the Clean Transportation Program
TN #:	232567
Document Title:	Raoul Renaud Comments - Ongoing Support for FCEVs is Essential for Mass Adoption of ZEVs and to Benefit Disadvantaged Communities
Description:	N/A
Filer:	System
Organization:	Raoul Renaud
Submitter Role:	Public
Submission Date:	3/27/2020 1:02:03 PM
Docketed Date:	3/27/2020

Comment Received From: Raoul Renaud
Submitted On: 3/27/2020
Docket Number: 19-ALT-01

Ongoing Support for FCEVs is Essential for Mass Adoption of ZEVs and to Benefit Disadvantaged Communities

I have been driving a Honda Clarity Fuel Cell since August, 2017. California has been trying for years to launch the mass adoption of ZEVs. While a significant number of ZEVs are now on the road, there is a long way to go. Why are people resistant to ZEVs? Four main reasons: range, duration of recharging, inability to recharge at home, and price. FCEVs already have solved the first three; price will go down as adoption goes up.

BEVs have made great strides in range; 250 miles is the new standard and 350 is available at the highest price levels' recharging speed is still problematic. FCEVs have always offered over 300 miles and 400 is within reach. Refueling time is 5 minutes. Those who live in apartments or donâ€™t have a place to charge at home can simply fill up with H2 at the gas station, just as they do now.

Widespread adoption has been held back by the painfully slow buildout of fueling stations. The present 41 stations are overtaxed by Californiaâ€™s 8000 FCEVsâ€”note all the comments in this proceeding concerning stations running out of fuel. By now it is clear that if the stations are built the cars will come. Hydrogen as a light-duty transportation fuel is truly a victim of its own success.

It is therefore essential that, as a first step, California actively pursue the completion of the first 100 stations. Based on experience to date, the FCEV population will increase in turn. It is reasonable to think that at that point self-sufficiency will begin to become a reality. Germany has built out some 83 stations in far less timeâ€”one every two weeks--than it has taken California to build half that number. Given the longstanding close cooperation on energy matters between California and Germany, perhaps we can learn from Germanyâ€™s experience how to increase the rate of deployment.

At the same time, redundancy needs to be addressed. Having a single fuel supplier has proven disastrous when that supplier suffers a disruption. Similarly, having a single dispenser per location is risky. We need to adopt the gas station model with multiple dispensers per location, and the equipment to support rapid refueling without long pauses for repressurization.

California has a longstanding policy to bring the benefits of ZEVs to disadvantaged communities. However, there is not a single hydrogen station along the 99 corridor, where the air quality is worst. At a minimum, Bakersfield, Fresno, and two or three other locations in the San Joaquin Valley need stations. The Imperial Valley (El Centro) and the northern Sacramento Valley (Redding) should also be served. It is no longer a chicken-and-egg question. The cars are available; no one can use them in disadvantaged areas if there are no stations.

Cost is of particular concern in bringing ZEVs to disadvantaged communities. Used ZEVs are one possible way to begin deployment. However, affordable used BEVs often have severely reduced range and are very small, making them undesirable. Used FCEVs do not lose range. FCEVs are roomy and safe. Used 2016, 2017 and 2018

Toyota Mirai FCEVs with long warranties are currently available for under $20,000, many including a $15,000/3 year fuel card. That is very economical transportation. Even so, they will be of no use in disadvantaged communities if there is no place to refuel them.
California motorists will adopt ZEVs as long as it doesnâ€™t involve a lifestyle change or inconvenience. People accept the familiar. FCEVs with the same range and refueling time as ICEs, with readily available fuel, and competitively priced, will be adopted. I support the proposals in the 2020-2023 Investment Plan Update, and encourage continuing investment in hydrogen infrastructure until self-sufficiency is feasible.