DOCKETED	
Docket Number:	19-ALT-01
Project Title:	2020-2021 Investment Plan Update for the Clean Transportation Program
TN #:	233748
Document Title:	Tadashi Ogitsu Comments - Hydrogen fuel cell can help achieving zero emission without a compromise in fueling duration
Description:	N/A
Filer:	System
Organization:	Tadashi Ogitsu
Submitter Role:	Public
Submission Date:	7/4/2020 6:11:39 AM
Docketed Date:	7/6/2020

Comment Received From: Tadashi Ogitsu
Submitted On: 7/4/2020
Docket Number: 19-ALT-01

Hydrogen fuel cell can help achieving zero emission without a compromise in fueling duration

Dear Sirs/Madams,

For the following reasons, I urge CEC to support hydrogen infrastructure in California. First, according to the recent report from UC Irvine, which was supported by CEC, "A principle conclusion of the roadmap analysis is that, with continued policy support, the renewable hydrogen sector can achieve fuel-economy adjusted price parity with conventional fuel by the mid 2020's...". Hydrogen is clearly economically viable option for our zero emission society. Second, hydrogen fuel cell car does not make any logistic compromise due to slow charging time for people who use automobile as personal transportation tools for their businesses. It is well known that hydrogen fuel cell folk lift is clear winner over battery folk lift for warehouse use exactly for that reason. Third, lack of long term and large scale energy storage capacity, which can be provided by hydrogen, has already been causing power utilities to either waste it in Germany (6.5TWh of electricity was wasted in Germany in 2019) or send it to the surrounding states and Mexico with negative price (California). These facts clearly demonstrates that zero emission energy supply infrastructure needs large scale and long term energy storage in order to buffer seasonal fluctuation of solar/wind energy resources. Underground gas storage, currently used for natural gas, can be used to store hydrogen in large amount for long duration at low cost. This is proven to be feasible. For the scalable H2 distribution, Air Products has already developed H2 pipeline in Texas and Luisiana for the oil refinery operation. The technology apparently already exists. At last, in 2021, Toyota will be ramping up their hydrogen fuel cell car production by ten fold (30,000 Mirai's per year), so, H2 stations in California will have more than enough customers. It is the time for California to ramp up the H2 station infrastructure development.

Best regards,
Tadashi Ogitsu