Dear Mr. Ramalingam,

In 2016, Santa Barbara County Air Pollution Control District (SBCAPCD) was successful in helping to secure a fast-fill hydrogen station in Santa Barbara County. This station is the northernmost extension to the Southern California hydrogen fueling network. The [Tri-Counties Hydrogen Readiness Plan](https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.c-5.org%2Fhydrogen.php&data=04%7C01%7Czenia.aguilera%40arb.ca.gov%7C707442f6486642ffd3ae08d8a2ac47d5%7C9de5aaee778840b1a438c0ccc98c87cc%7C0%7C0%7C637438208104916634%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C1000&sdata=z2QkK7DG6S9kCiScqKWLmnBpr20M1D6jLN5KhvKktZQ%3D&reserved=0) and the [Central Coast Go-Zero Zero Emission Vehicle Readiness Implementation Plan](https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.slocleanair.org%2Fcommunity%2Fzev.php&data=04%7C01%7Czenia.aguilera%40arb.ca.gov%7C707442f6486642ffd3ae08d8a2ac47d5%7C9de5aaee778840b1a438c0ccc98c87cc%7C0%7C0%7C637438208104916634%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C1000&sdata=46gpYyihzYU8DOGnBI%2Fc3Aov%2FECPXL0UyDlEsNYzgWo%3D&reserved=0) concluded a SLO County hydrogen station should be a priority for network resiliency and connectivity. To support these conclusions, the SLO County APCD issued a preferential $250,000 grant for the first developer to install a hydrogen station in the county under either the CEC Hydrogen Refueling Infrastructure grant (GFO-19-602) or the CARB Low Carbon Fuel Standard (LCFS) program. That attempt was unsuccessful since there currently appears to be a strong focus on further expanding the existing urban center hydrogen station network.

While this focus is important to ensure the urban network reliability and growth of the zero emission fuel cell electric vehicle (FCEV) market in California, SLO  County APCD sees the use of slow-fill hydrogen fueling stations as a viable alternative for supporting connectivity between the urban networks while expanding the FCEV penetration into less dense regions of the state.

The addition of slow-fill hydrogen stations in the Central Coast would augment the existing fast-fill hydrogen station in Santa Barbara and could encourage the Original Equipment Manufacturers (notably Toyota, Hyundai and Honda) to provide nearby FCEV sales and service; an important factor for the public and local/regional fleet owners to consider clean FCEV in their vehicle purchasing decisions.

The 276 mile stretch on Highway 101 between the Campbell and Santa Barbara hydrogen stations is a logistical challenge for effective FCEV travel along the north/south Central Coast route. Instead, drivers often opt for the longer inland route along Highway 5, which has an intermediate station at Harris Ranch. Publicly accessible slow-fill hydrogen stations in the Central Coast would not only make coast route connectivity more viable but would also make the Central Coast in general a destination location for FCEV travel. They would serve as a range extender and would reduce driver anxiety when traveling the coastal route. Further, in our discussions with local fleet owners, they expressed interest in FCEVs if there is a local fueling station.

Although SLO County APCD could help fund slow-fill hydrogen stations now, there is currently an issue that would limit the feasibility of their success: while they are currently eligible for Fuel Pathway Based Crediting under the Low Carbon Fuel Standard (LCFS) Regulation, they are not eligible for LCFS Capacity Credits under the regulation. Fast-fill hydrogen stations and charging stations for battery electric vehicles are eligible for both credits. Like with the other technologies, it would be helpful in the economic viability of adding slow-fill stations to the network if they were also eligible for LCFS Capacity Credits. Since potential LCFS regulation revisions are currently being considered, SLO County APCD recommends CARB consider developing a methodology to allow LCFS Capacity Credits for slow-fill technology.

The concept of using slow-fill stations in less dense regions of California is not intended to compete with the fast-fill network, but simply to set the stage FCEV penetration and growth into these areas where they can later transition to fast-fill hydrogen stations. Slow-fill hydrogen stations have several advantages that counter the disadvantage of fill-time. They are relatively low cost, their life cycle emissions are lower because unlike fast-fill stations, there is no cooling required, and the equipment footprint is considerably smaller than for a fast-fill station. Finally, when market growth enables a fast-fill station to replace a slow-fill station, the slow-fill station would not be a stranded asset. Instead, it could be retained in the area to ensure network resiliency or it could be moved to expand the network into a new area.

Thank you for your time and consideration. Please let me know if you have questions about our recommendation that the LCFS regulation revisions include LCFS Capacity Credits for slow fill hydrogen.

Sincerely,

**Andy Mutziger**| **Manager**