From:
 Kris Nelson

 To:
 SENR Exhibits

 Cc:
 Kris Nelson

Subject: SB 1530 testimony: infrastructure for fuel cell vehicles

Date: Wednesday, January 29, 2020 9:04:28 PM

Honorable Chair,

While this bill includes language to support development of vehicle electrification, it omits an important opportunity to both utilize surplus renewable power and apply it to heavy-duty vehicles to significantly cut harmful diesel emissions along with greenhouse gases.

Infrastructure for use of fuel cell hybrid electric vehicles is fast emerging nationwide.

I recommend that the definition of electric vehicles include hydrogen fuel cell electric vehicles (FCEVs) where the hydrogen is derived from renewable electricity.

California has 43 hydrogen fueling stations, serving some 7,000 light duty vehicles. There are 25,000 hydrogen fuel cell forklifts and additional material handling applications now being deployed. Toyota and Nikola are delivering long-haul heavy duty (Class 8) trucks now under manufacture and a few are now on the roads. There are about 50 fuel cell transit buses deployed in the US. Hydrogen buses are one-for-one replacements for diesel buses with similar range and refueling characteristics.

It is likely that by this time in 2021 there will be at least one facility producing hydrogen from renewable electricity and at least one retail hydrogen fueling station in the Portland/Vancouver area. Eugene Water & Electric Board, NW Natural, Douglas County PUD, and Tacoma Power are engaged in developing facilities for producing hydrogen from renewable electricity. Nikola Motors expects to deploy hundreds of retail hydrogen fueling stations around the country based solely on electrolytic hydrogen.

Fuels derived from renewable electricity, including renewable diesel, hydrogen, and even methane have a crucial role in reaching carbon emission reduction targets. Oregon can take a lead in this by creating incentives for deploying FCEVs and fueling infrastructure.

Thank you for your sincere consideration of these developments.

Sincerely,

Kris Nelson Portland

Kris Nelson, MBA, CP Principal **Phoenix Finance** 503.318.0223