

Phil Baxley
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Testimony of Phillip Baxley, President, Shell Hydrogen LLC regarding rulemaking to consider adoption of the 2008 amendments to the California zero emission vehicle regulation before the CARB 27 March, 2008

Thank you for allowing me to comment today. I'm Phil Baxley, President of Shell Hydrogen LLC, and I am also the chairman of the board of the National Hydrogen Association. My comments reflect Shell's views on this matter, however, the NHA has also submitted written comments on this issue, which are consistent with mine.

Through the California Air Resources Board's (CARB) leadership, California has been setting the national and global agenda on the issues of energy, air quality and transportation. In no small part because of your influence in cultivating an appropriate regulatory environment, car manufacturers (OEMs) are clearly responding and making impressive progress in demonstrating increasingly functional and attractive fuel cell vehicles (FCVs).

However, the current proposal on Zero Emission Vehicles (ZEV) by CARB staff has injected a significant degree of uncertainty into the process sufficient to call into question the approach that has already been clearly outlined in the California Hydrogen Highway program. This new proposal has caused significant uncertainty amongst OEMs and energy companies that are committed to FCVs and deflects us from the approach we were supporting and working together towards.

Plug In Hybrid Electric Vehicles (PHEV), another technology still under development, appear significantly over-weighted in the current proposal. PHEVs are simply not a silver bullet. There are a number of authoritative studies* indicating that the Well-to-Wheels cost (in terms of CO2 emissions) for PHEVs can be higher than that of FCVs, depending on the carbon intensity of grid supplied electricity versus the carbon intensity of the hydrogen source.

While FCVs are potentially a very promising longer term solution, other more conventional alternatives should also be deployed in the near term. This, however, does not mean that CARB should cease its encouragement of such major long term solutions, such as hydrogen FCVs. Shell sees multiple mobility pathways, and CARB should take the approach of "and/and" instead of "or". It is simply too early now to choose the winning technology, and therefore, we should keep all reasonable options open. To keep such options open, CARB needs to rebalance credits back towards FCVs to better reflect the long term development costs of this technology. By doing so, CARB will send a clear signal to the OEMs and energy companies of your sustained, long term support and determination.

The State of California is a national and international leader in promoting innovative solutions to transportation and environmental challenges. This is

an important decision facing the board, a decision that will have far reaching ramifications for the direction the State and the nation to take. CARB should keep the pressure on and provide the leadership needed to develop truly suitable solutions to air quality problems, increasing energy diversity, and addressing climate change. Led by CARB, Shell looks forward to working together with you in tackling these challenges.