

19-12-4

Andrew A. Frank's testimony Dec 12, 2019

Thank you chair Nichols and members of the board for the opportunities to speak.

You may all remember that I retired as a professor of Mechanical Engineering at UC Davis after 28 years and demonstrating to the world that Strong Plug-In Hybrid Electric Vehicles, SPHEVs can be designed and constructed at comparable costs to ICEs and BEVs but with better performance than conventional vehicles thus it should be considered a long-term technology that may be needed forever.

Around 2006 I formed the company Efficient Drivetrains Inc., EDI, to build SPHEV trucks and busses from class 2 to Class 8. Our customers ranged from Chinese bus companies, to PGE work and service trucks, to School busses and to delivery trucks of all sizes.

The company was sold last year to Cummins Engines Inc. They have acquired all 45 patents belonging to myself and EDI.

My purpose here today is to support CARB in promoting the idea of the electrification of professional and commercial fleet trucks and buses.

There are many applications that can be done better with long range plug-in hybrid trucks or SPHEVs that annually get 90% to nearly 100% of their miles from electric energy.

However, these SPHEVs will not come to past unless they are specifically encouraged through this CARB regulation with better incentives and no sunset date on eligibility.

CARB could also provide more credits for low power, bi-directional and wireless charging for these trucks and other electrified vehicles because of the benefits to the electric grid.

The World is watching CARB and this A-C-T activity, carefully, and we could greatly reduce the time to world-wide ZERO CO2 if regulations and incentives encourage long-range PHEVs or SPHEVs as well as Battery EVs and fuel cell EVs.

I want to be sure that CARB is aware of these and many more possibilities developed from lessons-learned in the last 20 years of my experience inventing ZERO CO2 vehicles and directing technology at EDI. I will be glad to consult with CARB staff and contractors on publicly available technologies that can speed our movement toward zero CO2.