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SENATE SELECT COMMITTEE ON HYDROGEN ENERGY SENATOR BOB ARCHULETA, CHAIRMAN



OVERVIEW OF THE STATE AND THE PROGRESS OF THE HYDROGEN INDUSTRY

California State Capitol
John L. Burton Hearing Room (4203)
Tuesday, July 27, 1:30 p.m.

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- I. 1:30 PM - Welcome and Introductions**
 - Senator Bob Archuleta, Chair, Select Committee on Hydrogen Energy

 - II. 1:35 PM - Overview of the State and the Progress of the Hydrogen Industry**
 - Dr. Jack Brouwer, Director, National Fuel Cell Research Center, University of California, Irvine
30min.

 - III. 2:05 PM - California Air Resources Board**
 - Andrew Martinez, Ph.D., Staff Air Pollution Specialist on Hydrogen, CA Air Resources Board
Hydrogen Station Network Analysis
15min.

 - IV. 2:20 PM - Light- and Heavy-Duty End Users**
 - Leslie Moore, Director, Facilities & Fleet, American Red Cross
10min.
 - Yuval Steiman, Director, Eco-Compliance & Research, Hyundai Motor Company
10 min.
 - Vic LaRosa, CEO, President, and Co-Founder, Total Transportation Services (TTSI)
10min.
 - Rebecca Kaplan, Vice Mayor of Oakland
10min.

 - V. 3:00 PM – Committee Members Q&A**

 - VI. Public Testimony**

 - VII. Close Out**

BACKGROUND

❖ Overview of the State and the Progress of the Hydrogen Industry

Dr. Jack Brouwer, Professor of Mechanical and Aerospace Engineering; Director, National Fuel Cell Research Center; Director, Advanced Power and Energy Program.

Dr. Brouwer will provide an overview of the state and progress of the hydrogen industry. Dr. Brouwer received his Ph.D. in mechanical engineering from the Massachusetts Institute of Technology in 1993. From 1993 to 1997, he served as a research assistant professor at the University of Utah and was a member of the technical staff at Reaction Engineering International. He came to UC Irvine in 1997 as associate director of the National Fuel Cell Research Center (NFCRC), concurrently holding appointments as lecturer, assistant and then associate adjunct professor. He was named assistant professor in the summer of 2011.

❖ California Air Resources Board

Andrew Martinez, Ph.D., Staff Air Pollution Specialist on Hydrogen, CA Air Resources Board

California's hydrogen fueling station network has continued to add new, highly capable stations while the number of Fuel Cell Electric Vehicles (FCEVs) on-the-road continued to increase. The California Air Resources Board will update the Select Committee on the number of completed hydrogen stations and the criteria for where these stations are located.

❖ Light- and Heavy-Duty End Users

Leslie Moore, Director, Facilities & Fleet, American Red Cross

Leslie will brief the Select Committee about the American Red Cross Fuel Cell Electric Vehicle Pilot Program and the American Red Cross' experience with the FCEVs and California's fueling network.

Yuval Steiman, Director, Eco-Compliance & Research, Hyundai Motor Company

Hyundai Motor Company is an industry leader and currently sells the world's first dedicated hydrogen-powered SUV, the NEXO Fuel Cell. Hyundai will update the Select Committee on the products they sell in California, the end user experience and their plans in the hydrogen arena

moving forward.

Vic LaRosa, CEO, President, and Co-Founder, Total Transportation Services (TTSI)

TTSI an innovative, asset-based logistics provider driven by Sustainability, Safety, and California Compliance. Total Transportation Services distinguished itself early on by its commitment to sustainable practices and by fostering a company-wide awareness of the urgency to reduce diesel emissions.

Rebecca Kaplan, Vice Mayor of Oakland

Vice Mayor Rebecca Kaplan has worked with hydrogen in a number of different capacities during her years in public service. Rebecca plans to update the Select Committee on how the City of Oakland has embraced hydrogen and detail the hydrogen projects at AC Transit and the Port of Oakland.