

HYDROGEN – NET-ZERO EMISSIONS ECONOMY

Speaker - Dr. John Perona - Dr. Perona is Professor of Environmental Biochemistry at Portland State University, Adjunct Professor of Biochemistry & Molecular Biology at OHSU, and a faculty fellow of the Institute for Sustainable Solutions at PSU. He is author of over 100 peer-reviewed articles in Biochemistry and related fields. Present research interests in the Perona lab include genetics and biochemistry. The Perona lab is affiliated with the Center for Extreme Environments at PSU and is generously funded by a grant from NASA.

Dr. Perona also integrates expertise in science and environmental/energy law to address how advances in science and technology can be incorporated into policymaking, focusing on climate change, transition to a renewable energy economy, and biotechnology. Recent investigations include analysis of a new state law for groundwater conservation in California, critical review of current US policies for the use of genetically modified organisms in agriculture, and a detailed analysis of the science and policy for developing renewable transportation fuels, including biodiesel production from algae.

Presentation - The presentation covers some basic science about hydrogen and then goes through the different ways it can be manufactured and their relative costs and readiness, uses of hydrogen, how hydrogen can be integrated into a net-zero emissions economy in terms of production, storage and transport, and what policies might best promote development of hydrogen technology