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FIRST HYDROGEN FUEL CELL ELECTRIC BUS ARRIVES IN COSTA RICA

[Liberia, Guanacaste – for immediate release] – Costa Rica’s first hydrogen fuel cell electric bus arrived on July 28, 2017 at the port of Limón on Costa Rica’s Caribbean coast. Originating at the US Hybrid Corporation’s test facility in South Windsor Connecticut, the arrival of the bus completes a crucial integration milestone on the nation’s first hydrogen-electric transport ecosystem project.

Upon clearing Costa Rican Customs, the bus will be transported to Ad Astra’s research facility in Liberia, Guanacaste where it will undergo additional tests and integration protocols prior to being incorporated into the rest of the hydrogen ecosystem already in place at Ad Astra. Once these steps are successfully completed, the bus will initiate a series of demonstrations along representative routes near the city of Liberia.

Manufactured by Belgium’s Van Hool for US Hybrid Corporation of Torrance California, who integrates the fuel-cell electric power train, the bus has a seated capacity for 35 passengers and an approximate range of 338 km on 38 kg of compressed hydrogen. It is the first of its kind in Central America generating on-board electricity with a hydrogen fuel cell. Its electric propulsion has a zero-carbon footprint.

The Hydrogen Ecosystem Project, initiated in 2012 jointly between Ad Astra and Costa Rica’s RECOPE, a government-owned petroleum refinery, later transitioned to a public-private partnership (PPP) with Costa Rica’s Sistema de Banca para el Desarrollo (SBD), a public financial institution, promoting Costa Rica’s development. Since 2015, four other partners, under Ad Astra’s leadership, have joined the team, including, Air Liquide, a world leader in gases, technologies, and services for industry and health; US Hybrid Corporation, specializing in hydrogen fuel-cell electric vehicles, Cummins Inc. a US global power leader in diesel and alternative fuel engines, and Relaxury S.A., a subsidiary of Costa Rica’s Purdy Motor S.A.,

who will operate the bus for the partnership, initially as a not-for-profit demonstration for the Costa Rican people. All team members have contributed their own resources to the project.

The partnership aims to gain operational and business experience on the use of domestically produced hydrogen from renewable energy sources to support Costa Rica’s transportation needs. Other vehicles, including trucks, marine, trains, forklifts, service and private vehicles and aircraft are being considered. A hydrogen-based economy could free Costa Rica from its dependence on imported oil, retaining the sizable portion of its GDP currently used to buy oil-based fuels. About 70% of Costa Rica’s energy is consumed by highly polluting transportation.

ABOUT THE TECHNOLOGY

Hydrogen is produced from renewable electricity through water electrolysis and stored for later use. When used in transportation, hydrogen, stored on-board the vehicle, combines with oxygen from the air to produce electricity, which feeds an electric motor and produces movement. The only byproduct is clean water vapor. Hydrogen-based technologies enable the use of renewable energies for transportation while maintaining the range and fueling-speed convenience of traditional fossil-fuel vehicles.

ABOUT AD ASTRA

A US Delaware corporation established in 2005, Ad Astra Rocket Company is the developer of the VASIMR® engine, an advanced plasma space propulsion system aimed at the emerging in-space transportation market. Ad Astra also owns and operates supporting research and development subsidiaries in the US and Costa Rica. Through its subsidiaries, the company also develops earthbound high technology applications in renewable energy, advanced manufacturing and applied physics. Ad Astra has its main laboratory and corporate headquarters at 141 W. Bay Area Blvd in Webster, Texas, USA, near NASA’s Johnson Space Center.