

Wind plus water: self-sufficiency of the Island of El Hierro, UNESCO Biosphere Reserve

VERÓNICA MONTERO¹, CRISTINA MORAL PRESENTACIONES², AND JOAN POCH³ - 1. *Cabildo Insular de El Hierro, Dr. Quintero, 4, 38900 Valverde, El Hierro, Canary Islands, Spain, <vmontero@el-hierro.org>* ¶ 2. *Gorona del Viento El Hierro S.A. Provisor Magdaleno, 8, 38900 Valverde, El Hierro, Canary Islands, Spain* ¶ 3. *Department of Geology, Universitat Autònoma de Barcelona, 08193 Cerdanyola del Vallés, Barcelona, Spain*

At the very southwest of the archipelago, the smallest of the Canary Islands (Spain) has been historically dependent on external goods and materials including the supply of energy. To this day, the electricity consumed by the population of El Hierro is generated by diesel engines whose fuel is imported regularly by sea. A decade ago, the Island Council of El Hierro (the “Cabildo”), the electricity company Endesa and the Technological Institute of the Canary Islands – owned by the Regional Government of the Canary Islands –, decided to join forces to create a public-private partnership with the aim of achieving electricity and water self-sufficiency with the use of clean energy sources. In 2004 the Gorona del Viento El Hierro Corporation (S.A.) was founded. El Hierro will be the first island in the world to become self-sufficient by providing its own electricity from renewable sources when Gorona del Viento’s wind-hydro power plant comes into service this year. One of the most important milestones of the “El Hierro 100% renewable energies strategy” has been reached with the launching of this plant. In addition to local objectives, the wind-hydro power plant of El Hierro will serve as a focal point for other territories with similar circumstances at EU level and internationally. This concept is highly applicable to islands and even to isolated inland areas, therefore the project also aims to be a global point of reference.

Presented in Theme 1