

RED ELÉCTRICA DE ESPAÑA

Clean energy for EU islands
www.euislands.eu | info@euislands.eu



- Canary Islands, Spain
 - La Gomera:
 - Load range between 6 and 10 MW.
 - Close to 0% renewable until 2023.
 - Isolated power system with Diesel power plant + 12 MW Wind Parks
 - Wind parks geographically concentrated.
 - No interconnectors (planned with Tenerife island on 2025)
 - No energy storage
 - 7% renewable (jan-aug 23)
 - Maximum wind production continuously limited due to balancing/stability requirements
 - Challenge dealing with wind uncertainty / availability.
 - No historical track record of wind in the area

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- El Hierro

- Load range between 3.5 and 7.5 MW.
- Isolated power system with diesel power plant + wind-hydro pumped storage (CHE)
- CHE: 11.5 Wind + 11.4 turbines + 6.4 pumps + 2 reservoirs (capacity: roughly 2 days of system's load)
- No interconnectors
- Synchronous renewable (hydro) allows to reach 100% renewable generation (almost 10.000 hours being 100% renewable since august 2015. 24 consecutive days' record)
- RES integration highly dependent on pumped unit's availability and limited by storage capacity
- Wind production maximized by means of pumping and energy storage capacity.
- Evolution over time. Close collaboration between parties allowed to fine-tune controls and boost system's performance
- Roughly 50% renewable year by year

