Project name: Definition of cost-optimal transition strategy to achieve an emission-free electricity mix on La Palma Island (Spain) through the use of multiple technologies including hydrogen-based storage	**Approx. value of the contract** 20 000 CHF (approx. 21 500 USD)
Country: Spain **Location within country**. La Palma Island	**Duration of assignment:** 5 months 09/2020 – 02/2021
Name of Beneficiary/Client: La Palma Renovable (local civil society organisation)	**Total No. of staff-months of the assignment:** 1 **Staff-Months provided by Planair**: 1
Associated consultants: NA	**Names of Planair staff members involved in the project:** Christian Rod, project manager Lucas Mosca, project engineer

Project Description

Diesel generators account for 88% of La Palma electricity sources. La Palma Renovable and Planair have worked together in the planning of the future energy model of La Palma, through different scenarios to move from fossil to renewable energies and thus meet the objectives of reducing emissions and decarbonization of the island's economy.

Study content

- Definition of scenarios and considered technologies
- Gathering specific production, consumption e-mobility data
- Conducting cost-optimal sizing of electricity production mix by minimizing LCOE for the different scenario thanks to pre-developed optimization models and methodology
- Analysis of the various energy flows to select most appropriate scenario.

Figure: Hourly distribution of Optimization Results