

Assignment name: Renewable energy concept for Easter Island	Approx. value of the contract (in current US\$): 15'000 US\$
Country: Easter Island	Duration of assignment (months): 5 months Start date (month/year): 01.2018 Completion date (month/year): 05.2018
Name of Client: Race for Water foundation	Name of associated Consultants, if any: Swiss Hydrogen AG
Total No. of staff-months of the assignment: 1	Name of PLANAIR staff members involved in the project: François Bauer, Lionel Perret, Florent Jacqmin, Marine Cauz,
Description of Project: The aim of the project is to define a concept to provide 100% renewable energy on Easter Island. Various solutions have been combined such as <ul style="list-style-type: none"> - Photovoltaics + short term storage (batteries), - Pyrolysis based on plastic wastes, - Small wind farms, regarding landscape preservation, - Fuel cell and plastic to hydrogen (long term storage). 	
Description of actual services provided by your staff within the assignment: <ul style="list-style-type: none"> - Defining means and targets, - Comparative energy mix study and sizing, - Pro/cons of solutions, - Identification of the most economical solutions, - Communication and meetings. 	
A scientific paper has also been written based on the modelling and simulation results of this study. This publication highlights the benefits of a diversified energy mix and aims to share this finding with the scientific community.	
<p>Figure 1: Energy flows between the different sources of production, storage, consumption and the losses</p>	<p>Figure 2: Comparative economic analysis of different energy mixes</p>