SAFEOIL

A BIOMASS FUEL FROM MARINE MICROALGAE CULTIVATED IN FORMER KAOLIN QUARRIES

By selecting microalgae for their high oil content and cultivating them in open-air tanks set up in former kaolin quarries, the SAFEOIL project partners aim to establish a unit at Ploemeur, not far from Lorient, for demonstrating industrial production in France of biodiesel based on outdoor-grown marine microalgae. Research into perfecting what is known as a third generation biomass fuel, which requires neither raw materials nor agricultural land, will focus on the entire production and commercialisation chain: selection of microalgae of interest for the quantity and quality of oil they produce, adaptation of kaolin quarries, and specification of cultivation methods, oil extraction and pre-processing procedures to obtain a biodiesel conforming to European norms. The project, which incorporates an economic and environmental impact assessment, will also look at the complementary commercial potential of these microalgae, particularly relating to health and the environment.
Twelve test tanks supplied with seawater will be set up on the Kaolins de Ploemeur (Imerys) sites which cover 50 hectares and can accommodate production on an industrial scale. Optimum conditions should ultimately see production levels reach 14 200 l/ha/yr in Brittany.

Partners

Companies

Veolia Environnement, Limay [Project Developer]
Imerys Ceramics France, Ploemeur
Sodaf Géo étanchéité, Belleville-sur-Vie

Research center

Ifremer, Nantes

Other partner

Audélor, Lorient

Funder

Sans financement public

Labelisation

21/11/2008

Overall budget

2 120 K€