

Shell in Hawaiian algae biofuel pilot Sees big future in green scum

By Lewis Page

Published Wednesday 12th December 2007 12:56 GMT

Oil giant Shell announced yesterday that it will build a pilot plant in Hawaii to make biofuel out of algae grown in seawater ponds.

"Algae have great potential as a sustainable feedstock for production of diesel-type fuels with a very small CO₂ footprint," said Graeme Sweeney, Shell veep for Future Fuels.

"This demonstration will be an important test of the technology and, critically, of commercial viability."

The oil company, which is mounting the venture in cooperation with tech developer HR Biopetroleum, believes that swiftly-multiplying algae strains native to Hawaii can produce viable amounts of vegetable oil. It is thought that this can be profitably turned into fuel for diesel engines.

The joint venture is to be called Cellana, and will also feature an academic research project drawing on expertise from universities around the world. Initial analysis by Shell and Biopetroleum suggests that saltwater algae can produce as much as 15 times the oil yield per hectare from landbased crops such as rape, jatropha or palm soya. Selected types of algae can double their mass several times daily, building up a thick layer of scummy gold on the sea surface.

It is also thought that algae fuel farms may be able to act as CO₂ sinks for other industrial facilities. The Cellana project will test this using bottled CO₂.

Previous schemes to use algae for fuel production have failed commercially, and some analysts have pointed out that algae lacks the political farm-lobby muscle associated with more traditional biofuel sources such as corn. Thus, its use for fuel may never enjoy similar levels of government subsidy and research funding.

However, Shell believes that incoming legislation will continue to drive up biofuel demand. The company claims that it is already "the world's largest distributor of biofuels", and says the use of food crops is "a constraint" on further development.