

German power plant testing CO₂-scrubbing algae

July 22 2010



Algae specimens being tested at a lab. Swedish energy group Vattenfall said it had launched a major pilot project Thursday using algae to absorb greenhouse gas emissions from a coal-fired power plant in eastern Germany.

Swedish energy group Vattenfall said it had launched a major pilot project Thursday using algae to absorb greenhouse gas emissions from a coal-fired power plant in eastern Germany.

The two-million-euro (2.6-million-dollar) trial run, which will continue until October 2011, in the depressed Lausitz mining region is one of several experimental attempts in the sector using [algae](#) to slash carbon

dioxide output.

"The microalgae use climate-killing CO₂ to create valuable biomass," the chairman of Vattenfall Europe Mining and Generation, Hartmuth Zeiss, said in a statement.

"Moreover the new technology will bring useful know-how to the Lausitz and increase its importance as a region for energy production."

Half the funding for the project called green MiSSiON (Microalgae Supported CO₂ Sequestration in [Organic Chemicals](#) and New Energy) comes from Vattenfall, the other half from state and European Union subsidies.

The gas emitted at the Senftenberg brown-coal-fired plant is being pumped through a kind of broth using algae cultivated in 12 plastic tanks.

"The aim is to find out what kinds of algae work with brown coal dust and then, how economical this kind of CO₂ reduction is," a spokesman for the Vattenfall division, Axel Happe, told AFP.

The biomass produced in the process can be used to produce biodiesel, to feed biogas power plants and as a nutritious supplement in fish food, Happe said.

He said it was difficult to quantify the amount of [CO₂ emissions](#) normally emitted at Senftenberg or estimate how sizeable the reduction could be with the use of algae, which can scrub 10 times as much CO₂ as land-based plants.

But he said the company aimed to publish initial results in late 2011.

A project at the Massachusetts Institute of Technology in 2008 found that diverting CO₂ through an algae broth could reduce emissions by as much as 85 percent.

Vattenfall is the third biggest electricity provider in Germany.

Last month, European aerospace giant EADS unveiled what it called the world's first "hybrid" aircraft to run on algae fuel.

(c) 2010 AFP

Citation: German power plant testing CO₂-scrubbing algae (2010, July 22) retrieved 6 February 2023 from <https://phys.org/news/2010-07-german-power-co2-scrubbing-algae.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.