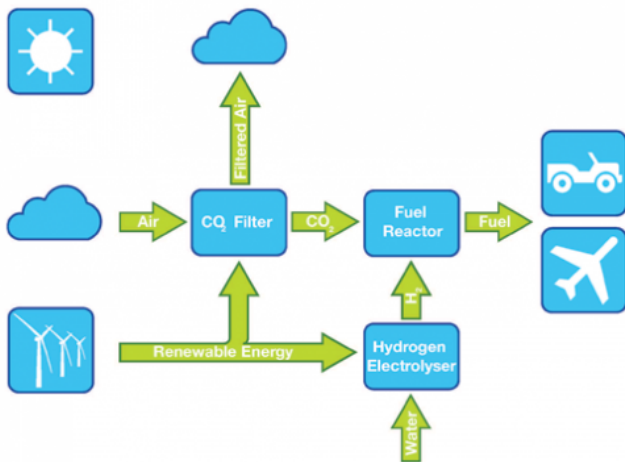


# Air Fuel Synthesis shows petrol from air has future

19 October 2012, by Nancy Owano



Credit: Air Fuel Synthesis

(Phys.org)—Petrol from air at first glance from this week's headlines, claiming scientists have turned fresh air into petrol, looked as if this was yet another over the top claim about a killer solution to solve the environmental crisis and specter of global warming. Still, engineers in the UK believe a small UK company may be on to something real, a synthetic replacement for fossil fuel. A small company in the north of England, Air Fuel Synthesis (AFS), has developed air capture technology to create synthetic petrol. The company has been running a demonstration plant in Stockton-on-Tees where it has produced five liters of petrol since August, manufacturing gasoline from carbon dioxide and water vapor.

"We've taken carbon dioxide from air and hydrogen from water and turned these elements into petrol," said Peter Harrison, the company's chief executive. "The unit we have here is a demo facility to show the processes can work," he said. AFS expects to be in production by 2015.

Tim Fox, the head of energy and the environment at the Institution of Mechanical Engineers in London, underlined the significance of what he has seen of the AFS solution so far. "The innovation is that they have made it happen as a process. It's a small [pilot plant](#) capturing air and extracting CO<sub>2</sub> from it based on well-known principles."

Its product looks and smells like petrol but it's cleaner and clearer, without additives. The fuel can be used in any regular petrol tank. The results so far are said to be promising but there are more development stages to go. The company said power could be used from [renewable sources](#) such as [wind farms](#) or tidal barrages. The company has used carbon dioxide extracted from air to make petrol, but it is also using industrial sources of [carbon dioxide](#) until it can improve on carbon capture.

Still, the company has its own vision. The company hopes that in two years it will build a larger, commercial-scale plant capable of producing a ton of petrol a day. "We think that by the end of 2014, provided we can get the funding going, we can be producing petrol using renewable energy and doing it on a commercial basis," Harrison said.

The vision is also that people could go on to a garage and put the new product into their cars without having to install batteries or adapt the vehicle for fuel cells or having hydrogen tanks fitted. AFS also plans to produce "green" aviation fuel to make air travel more carbon-neutral.

**More information:** [www.airfuelsynthesis.com/](http://www.airfuelsynthesis.com/)

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