

# European Power Daily

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## CARBON

### UK developers to build 300 MW hydrogen plant

UK-based Powerfuel Power, B9 Coal and AFC Energy said Monday they had signed a binding letter of intent to build a 300 MW power plant at Powerfuel's Hatfield colliery near Doncaster, South Yorkshire.

The agreement is for a 300 MW power plant that will use hydrogen as its main feedstock. The hydrogen will be produced by cleaning syngas from the nearby 800 MW Hatfield combined cycle gas turbine—a process known as hydrogen purification—and passing it through fuel cells to generate power.

AFC Energy will provide the fuel cell technology while B9 Coal will coordinate the construction of the plant.

The agreement also includes an option to rollout the technology to further territories in the future, the companies said.

Powerfuel Power—a 51% subsidiary of Russia's Kuzbassrazregulol—is currently building a 800 MW CCGT with carbon capture capability at the Hatfield colliery, South Yorkshire. The plant will use syngas as a feedstock.

Syngas is produced by drilling holes in an unmined coal seam and injecting oxydants into the holes.

The site received Eur180 million of European Union funding in 2009 to become the UK's first CCS plant.

Powerfuel later plans to convert the 800 MW Hatfield CCGT plant to a 900 MW integrated gasification combined cycle turbine (IGCC). IGCC technology can turn coal directly into syngas.

"This business venture with Powerfuel is a wonderful opportunity for fuel cell technology on both a local and global scale...together we can offer a technically advanced solution to the problem of rising carbon emissions, as well as a practical and commercial template for clean energy generation," B9 Coal director Alisa Murphy said.

B9 Coal said August 26 it plans to bid under the UK government's second carbon capture and storage demonstration program for a 500 MW pre-combustion CCS project in Northumberland.

The proposed CCS plant will be situated near Rio Tinto Alcan's existing 420 MW Lynemouth coal-fired station in Ashington, Northumberland.

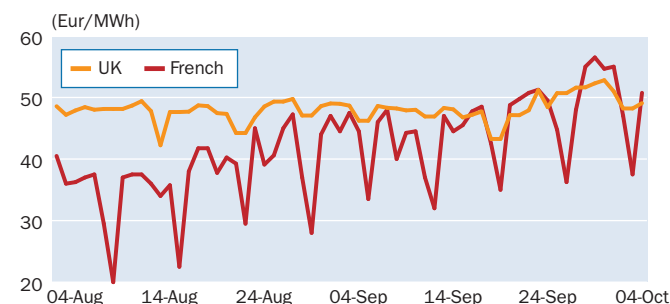
In July, the UK's Department of Energy and Climate Change said it will launch a second selection process for three new CCS demonstration projects before the end of 2010, as part of the UK's goal to have four CCS demonstration plants up and running by 2025.

The first CCS competition was launched by the previous Labour government in 2007. Scottish Power's coal-fired Longannet plant in Scotland and E.ON UK's coal-fired Kingsnorth in Kent are the only two contenders left in that competition.—Olivier Lejeune

### Petrofac, Shell agree carbon storage plan

Shell has engaged a subsidiary of engineering company Petrofac, CO2DeepStore, to turn its Goldeneye oil and gas field into a carbon repository, Petrofac said Monday. The cost of redevelopment is not

## UK vs French day-ahead base



Source: Platts

## Platts Power Index commentary

Platts Power Index for the German forward market dropped Monday to its lowest level in a week as prices for feedstock fuels gas and coal softened, while pressure eased on the prompt after the 1,275 MW Grafenrheinfeld reactor returned. In the morning, November base fell 15 euro cent to Eur52.20/MWh, although nuclear availability remained tight despite the reactor return with four more units offline for maintenance and wind power declining towards average levels. Further forward, Cal 11 base dropped 15 euro cent to Eur49.45/MWh as Cal 11 gas at the Dutch TTF hub fell 25 euro cent to Eur19.80/mt. This meant the PPI shed 15 euro cent to Eur49.96/MWh by 1200 London. Sentiment did not change during the afternoon as year-ahead coal into Europe fell back to \$99/mt. Core contract Cal 11 base extended its losses, down another 15 euro cent at 49.30/MWh, its lowest close in over a week, but still within the narrow range, the contract has been trading since July. This meant the PPI lost an additional 12 euro cent during the afternoon to Eur49.84/MWh, down 27 euro cent from Friday's close.

## German Platts Power Index (PPI)

	04-Oct-10	Change
<b>Midday assessments</b>		
PPI (Month-ahead – Eur/MWh)	52.200	-0.150 ▼
PPI (Quarter-ahead – Eur/MWh)	51.250	-0.150 ▼
PPI (Year-ahead – Eur/MWh)	49.450	-0.150 ▼
<b>Platts Power Index Midday</b>	<b>799.350</b>	<b>-2.400 ▼</b>
<b>PPI Midday (Eur/MWh)</b>	<b>49.960</b>	<b>-0.150 ▼</b>
<b>End of day assessments</b>		
PPI (Month-ahead – Eur/MWh)	52.200	+0.000 —
PPI (Quarter-ahead – Eur/MWh)	51.200	-0.050 ▼
PPI (Year-ahead – Eur/MWh)	49.300	-0.150 ▼
<b>Platts Power Index EoD</b>	<b>797.400</b>	<b>-1.950 ▼</b>
<b>PPI EoD (Eur/MWh)</b>	<b>49.840</b>	<b>-0.120 ▼</b>

Platts Power Index (PPI): The PPI is a weighted forward power index, based on German front-month, front-quarter and front-year base load wholesale prices to indicate curve movements in continental Europe's benchmark power market. Front-month is weighted singularly, front-quarter three-fold and front-year 12-fold. The midday PPI index compares changes with the last end of day PPI, and the last end of day PPI compares changes with the last Midday PPI.