

The Netherlands hopes to neutralise additional coal power plants with an ambitious programme for carbon capture and storage. The Dutch even see an opportunity to become the CO₂ traders of Europe.

Netherlands - CO₂ capital?

| *by Rik Komduur*

The German utilities Eon and RWE and the Belgian utility Electrabel all have plans to build new coal-fired power plants in the Netherlands. Until recently, the Dutch energy producers Essent and Nuon had similar plans, but Nuon has put its project on hold and Essent has scrapped it altogether.

The Dutch government backs the coal revival. The Netherlands traditionally relies heavily on gas-fired power plants. The country is ideally located, however, to import coal and build power plants on its shores where there is plenty of cooling water available.

To harmonise the coal revival with its ambitious climate policy, the Dutch have pinned their hopes on carbon capture and storage (CCS). The government has already set aside €80 million to support CCS demonstration projects, and more is in the pipeline.

There are now four concrete plans for such projects, according to a spokesman of the Ministry of Economic Affairs. Two are still secret. The other two are a project by Nuon in the north of the country and the Rotterdam Climate Initiative (RCI), which has set itself the target of a 50% CO₂ emission reduction by 2025 compared to 1990.

Nuon, the owner of only one of four coal gasification plants in the world, wants to build a second multifuel gasification plant in the Eems port in the north of the Netherlands. The existing gasification plant in Buggenum will be equipped with



Rotterdam port area Photo: Corbis

a CCS pilot project in 2009. The plan is to equip the second plant with a larger CCS demonstration project.

In Rotterdam, Eon operates as the host for the small CATO pilot project launched last summer. This will be upgraded in 2014 with a much larger pilot project with an annual capturing capacity of approximately 0.25 to 0.75 million tons, linked to the new coal-fired power station that Eon wants to build in Rotterdam. Eon expects that in 2020 the full 7.5 million tons of CO₂ emitted by the power station will be captured.

But the Rotterdam Climate Initiative (RCI) is a broad programme that not only includes demonstration projects for CO₂ capture,

but also transport and storage projects. In fact, RCI and the Dutch government want to turn the Netherlands into a CO₂-hub. The port area already has an extensive CO₂ pipeline network. Former Prime Minister Ruud Lubbers, chairman of the RCI, has even argued that CO₂ could become a new driving force behind the Dutch economy now that the famed Dutch gas reserves are dwindling. CO₂ could be transported from the German Ruhr area and Antwerp to the Netherlands, which could store it in its many empty gas fields or use it for enhanced oil and gas recovery or in the country's greenhouses. Dutch CCS-technology could later also be exported to India and China, Lubbers points out. ■