

Three CO2 capture and storage projects started

12-10-2007 | persbericht | onderwerp: Energietransitie

Minister of Economic Affairs Maria van der Hoeven has earmarked €10 million for each of three pilot projects designed to expand knowledge about capturing and storing CO2.

The projects were selected from a pool of proposals submitted for financing as part of what is known as the Unique Opportunities Scheme (abbreviated as UKR in Dutch), which is part of the Energy Transition (EnergieTransitie) programme. These innovation projects may play a key role in expanding the practical knowledge required to develop efficient and cost-effective solutions to capture and store CO2. SenterNovem is implementing the scheme.

Minister Van der Hoeven underscores the importance of these developments. 'During the present government's term of office, we must take great strides to transform the Dutch energy supply into one of the most sustainable in Europe. The common assumption, however, is that we will continue to make extensive use of fossil fuels in the coming decades. During the transitional phase to clean energy, capturing and storing CO2 emissions can make a substantial contribution to our climate objectives,' says the Minister.

The projects selected are:

1. ZEPP Drachten. The zero emission power plant (ZEPP) project involves the collaboration of SEQ Nederland BV, ENECO Milieu BV, Delft University of Technology (TU Delft) and the Stichting Energy Valley initiative and will cost €60 million. ZEPP is an innovative concept for climate neutral power plants. As part of this project, the CO2 produced by burning natural gas to generate electricity is captured and pumped into the Akkrum natural gas field, enabling – through the resulting pressure – more natural gas to be produced. It is expected that about 250 kilotonnes of CO2 will be pumped into the gas fields each year, resulting in a yield of natural gas of about 40 million cubic metres.
2. Cryogenic CO2 capture. Enecogen and the province of Zuid-Holland will collaborate on this project, which will cost €36.5 million. Enecogen intends to build an 840-Megawatt natural gas-fired plant on the Maasvlakte, adjacent to the planned LionGas liquefied natural gas (LNG) terminal. Enecogen plans to capture CO2 and apply the principle of cryogenics, which literally means 'to cool'. LNG is supplied at an extremely low temperature. The 'cold' released while heating LNG will be used to freeze CO2, which can then be stored. The power station is scheduled to begin production in 2011. The aim is to have the CO2 capture facility fully operational by 2013.
3. Involving CO2 capture through coal gasification, this project involves the cooperation of Nuon Energy Sourcing and the Delft University of Technology (TU Delft). The project will cost €44.5 million. The aim is to test CO2 capture at the Willem Alexander coal gasification plant in Buggenum and then to apply this technology on a large scale at the new Magnum multi-fuel power plant to be built near the Eemshaven seaport. Substantial reductions in CO2 emissions can be achieved through gasification of biomass along with coal and through CO2 capture. A unique feature of coal gasification technology is that the CO2 is captured before power is generated, resulting in less energy loss.