



## Over 4000 Running Hours For Energy Carrier Of The Future Pilot Project With Fuel Cells Set Record

Delfzijl, February 2008 – The pilot with hydrogen fuel cells at the chlor-alkali plant of Akzo Nobel in Delfzijl reached the mile stone of four thousand running hours. At this location a semi industrial pilot is running with an innovative power plant. With the reached number of operating hours the plant delivered over 200.000 kWh to the grid. An initiative by Akzo Nobel and NedStack, supported by SenterNovem.

The PEM fuel cells convert hydrogen into electricity, heat and pure water. No harmful emissions are emitted (CO<sub>2</sub>, NO<sub>x</sub>, fine dust) during this process, above all the plant is silent. Hydrogen is considered to be the energy carrier of the future.

### Scoop

This is the first time that this technology is implemented on industrial scale of this magnitude. The fact that the plant reached the mile stone of 4000 running hours is of large meaning to NedStack and a worldwide first event to the whole fuel cell market. Otto Krediet, CEO of NedStack: “The beating heart of this power plant is the NedStack fuel cell. Our fuel cell is based on unique NedStack technology. We now proved something what we were already convinced about: NedStack’s fuel cells are quiet, emission free, efficient, durable and are competitive economically and in terms of quality compared to the world league”.

### Recycling

Hydrogen is generated as a by-product during the production of Chlorine. The chlor-alkali plant of Akzo Nobel is a perfect location for the pilot. Knut Schwalenberg, Manager Chlorine, underlines the importance of working with closed systems at the start of the pilot. “The direct conversion of hydrogen, a by-product of the production process of chlorine, into electricity and recycling this electricity in the electrolysis process of our chlor-alkali plant is an ideal solution. As such we are able to close the cycle in our process. We see it as a promising development with focus on the future”.

### Clean energy

It is expected that hydrogen technology becomes even more important in the future. Applying fuel cells in combination with hydrogen is not only applicable for industrial parties, but can also be used in back up power applications and the transport of persons and goods. By using hydrogen for city buses or canal boats the air quality improves in city centers. “During the opening of the PEM power plant in 2007 various companies have shown interest in the possibilities of this system”, says Frank Denys, hydrogen expert of SenterNovem. “We hope that by reaching this mile stone, 4000 running hours, other industrial parties become convinced of the advantages of the fuel cell technology!”

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## Editorial information, not for publishing

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### **Akzo Nobel**

Akzo Nobel is worldwide an authoritative industry. International the company is known as the largest producer of coatings, number one leader in the area of decorative coatings, of high-quality industrial coatings and an important supplier of specialty chemicals.

Akzo Nobel has approximately 68.000 employees, active in more than 80 countries. Their focus is the development of innovative products and durable technologies in order to offer adequate solutions to its customers.

Akzo Nobel is a Fortune Global 500 enterprise and the most durable chemical company registered on the Dow Jones Sustainability Index.

[www.akzonobel.nl](http://www.akzonobel.nl)

### **NedStack fuel cell technology BV**

NedStack is a Dutch company specialized in the development and production of PEM fuel cells.

Furthermore NedStack focuses on the development and production of different fuel cell systems, implemented as power plants, heating and supplying power for houses and utility, back-up systems and automotive drive line systems e.g. buses, trains and cars.

[www.nedstack.com](http://www.nedstack.com)

### **SenterNovem**

SenterNovem is an agency of the Ministry of Economic Affairs, which supports and promotes durable initiatives, amongst others by issuing subsidy programs. SenterNovem cooperates with business partners, public organizations and government in Energy Transition. Energy Transition aims on a durable energy supply within 50 years.

[www.senternovem.nl/eos](http://www.senternovem.nl/eos)