

Nuon Magnum Newsletter

number 3, 2009

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Groundbreaking at Nuon Magnum

On Thursday 10 December the stakeholders of the Magnum project met on the building site in the Eemshaven to celebrate the 'groundbreaking'. Not before time, because 2460 piles have already been driven.

So this is a good time to take a look back. At the beginning of 2005 Nuon came to the conclusion that the transition to a sustainable energy supply requires a new type of power plant. This would have to be a power plant that is flexible and innovative and in which fossil fuels can be used in a clean and efficient manner. So the idea of Nuon Magnum was born. Developing such a unique power plant is a challenge. 'Nuon Magnum cannot be realised without the cooperation and trust of many different parties', says Doede Vierstra, CFO of Nuon.

Several locations at which to construct Nuon Magnum were investigated and finally the choice was made of Eemshaven in the province of Groningen because of the spacious location and the good infrastructure. The Eemshaven, once a bare area, is now a hive of activity. 'We are very happy with what is happening in the Eemshaven because it gives a great economic impulse to the surrounding area', says Max van den Berg, the Queen's Commissioner. That activity is stressed also by Mr Ishikawa of main contractor Mitsubishi:

'Together we continue to work very hard so that the gas fired part of Nuon Magnum will produce electricity in 2012'

The 'groundbreaking' is an important milestone in the development of Nuon Magnum. We look forward with confidence to the next: the highest point! ■■



Doede Vierstra (CFO Nuon), Max van den Berg (Queen's Commissioner of the province of Groningen), Marijke van Beek (mayor of the municipality Eemshaven), Harm Post (managing director Groningen Seaports), Arnoud Kamerbeek (Head of BD&P Nuon), mr. Yoda (general manager PSEU Mitsubishi) and mr. Ishikawa (deputy general manager Takasago, Mitsubishi)

Green light at hand for Wagenborgen Envilla



In the village of Wagenborgen, part of the municipality of Delfzijl, a project hotel is being built to house the foreign construction specialists during the construction of the power plant. We are currently waiting for the irrevocable building permit so that the activities can start on the Groot Bronswijk site in Wagenborgen.

The building permit

Several months ago the municipality of Delfzijl took a draft decision to build the project hotel, which is known as Wagenborgen Envilla. Interested parties had the opportunity to appeal the decision by

submitting their views in writing. This procedure was used by 19 stakeholders. Subsequently the Municipal Executive gave careful consideration to the views, but found no reason to revise the draft decision. On 1 September the decision acquired 'definitive' status.

Meanwhile several appeals were submitted. It is expected that these appeals will be attended to in the beginning of 2010. Once the building permit becomes effective, contractor Van der Wiel can start the preparatory work; it is expected that the construction of the project hotel can begin in the spring of 2010.

Consultation with the local population

Before Van der Wiel/ Van der Valk submitted the building application to the municipality they engaged in a great deal of discussions with the inhabitants of Wagenborgen. They were keen to review their plans in line with the wishes of the local residents. Even after the permit application was lodged regular information evenings were organised to keep the residents of Wagenborgen abreast of all the developments. Furthermore, a sounding board group was set up in which proponents and opponents of the Wagenborgen Envilla hotel project are represented. This ensures that good consultation will continue in the future and that problems can be identified at an early stage. ■■



CCS in motion

The development of CCS is currently high on the political and public agenda. A number of companies, including Nuon, are making a case to the government for the realisation of demonstration projects for the capture, transport and storage of CO₂ (known as CCS). The CCS demonstration project of E.on and Electrabel on the Maasvlakte recently qualified for a subsidy of 180 million euros from the European Energy Programme for Recovery (EEPR). Along with the financial support that

these projects need at this stage of development, public acceptance is a crucial prerequisite. Shell's CO₂ pilot project in Barendrecht is in the spotlight at present. On 19 November a narrow parliamentary majority of PvdA, CDA and D66 voted in favour of this project. According to Minister Van der Hoeven of Economic Affairs there is adequate certainty about the safety of the project. Barendrecht is seen as a litmus test for CCS in the Netherlands because large-

scale development of CCS is not very likely without the pilot in Barendrecht.

Nuon is currently working on a CO₂-capture trial at its power plant in Buggenum, in the province of Limburg. ■■

Interview with Geert Laagland.



The new permit for the Nuon Magnum power plant took effect on 3 September 2009. Shortly afterwards, the first pile frames were made ready on the Nuon site and the very first pile was driven ceremonially into the ground under the watchful eye of all those

directly involved, among whom was Geert Laagland. Up to now, around 2,460 piles have been driven. Things are moving fast, because six pile frames have already been put in place. In total, approximately 4,500 piles will have to be driven

Geert Laagland manages the engineering team that is responsible for the construction of the Combined Cycle Units (steam and gas turbines). He is the principal point of contact for main contractor Mitsubishi. In an interview, Geert told us about all the building activities that are currently under way.

‘At present, we are busy on four fronts. Apart from pile-driving, we have also started laying the cooling water inlet. We are especially proud of that, because in our industry this is the most fish-friendly inlet in existence. The inlet incorporates a ten cm mesh and the water is sucked in at an extremely low speed. These factors in combination ensure that most of the fish turn round when they come in the vicinity of the screen. The fish that nevertheless pass through the screen are caught. They get via the belt sieve into a fish-friendly chute, which take them back to a place from which they can swim back into the harbour. This is a place where they can first recover from their adventure before seeking safety once again.

‘The third activity we are carrying out at the moment is related to the cooling water system. This has valves that help the system to operate. They are to be installed in large pits, four of which are being constructed. In addition, we are busy preparing to lay the cooling water pipes. This sounds simple, but if I tell you that they are each two and a half metres in diameter and 12 metres long, you can see that the reality is somewhat different. The total length of the cooling water pipes will be 5,500 metres.

‘Of course, we are incredibly pleased that we have now been able to start construction. We’ve all had to be extremely patient, but finally the waiting has ended: we are building the world’s most innovative power plant. And it’s in the Netherlands, in Eemshaven. We are especially proud of that.’ ■■

Tented village in the Eemshaven?

When you enter the Nuon site in the Eemshaven your eye is immediately drawn to two large, alien-looking tents. What are they for?

In October 2008, when Nuon decided to stop construction for a year because of licensing problems, the first boiler components were already being produced in Japan. Stopping that production turned out to be more complex and expensive than continuing production and then using storage, so the latter option was chosen.

In August of this year the boiler components were shipped to the Eemshaven to be stored on the Nuon site. There is plenty of room for them of course, but there are no warehouses or other storage facilities. However, the boiler components couldn’t be stored in the open air because they are too fragile for that, so temporary covered storage had to be found, such as tents. As the environmental conditions in the Eemshaven are by no means ideal, ordinary tents would not suffice. After considerable investigation the solution was found in Poly-Ned tents. These are inflated from the inside and are really solid. Thanks to the wind meter on the tent, the harder the wind, the more the tent inflates itself. Outside the tent is a fan with a heating unit. This enables the temperature of the tent to be kept above freezing, so any snow melts and the tent cannot collapse under its weight. There will be a total of six of these tents. ■■





Colophon

This newsletter is published by Nuon and appears quarterly.

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