

## **[Speech Gertjan Lankhorst, Huis Clingendael, The Hague - 25-08-2010]**

### **'The role of natural gas in the energy mix of the future'**

Madam Minister, ladies and gentlemen,

*'Those who are ignorant of history will neither understand today nor be able to plan for tomorrow.'*

The title of this speech tells you that I'm going to speak about the future. But before I do, I'd like to briefly mention the past. In recent years, interest has grown in the Netherlands about national history. As a result, we have some rather good initiatives, including the historical Canon of the Netherlands (a list of 50 themes encapsulating the history of this country) which was presented to Mrs Van der Hoeven, who was then Education Minister, by the Van Oostrom Commission in 2006.

When I was introduced to Maria van der Hoeven after she was appointed Minister of Economic Affairs in 2007, I showed her this very same slide [dia]. To the surprise of many, among the 50 prominent themes and individuals listed in the Canon – which included such international luminaries as Charlemagne, Erasmus, Rembrandt and Napoleon – was the discovery of the gas fields at Slochteren in 1959. Surprising or not, it was an excellent choice. Once the first well had been drilled, the natural gas sector developed swiftly to become the country's main source of energy. I can put it even more strongly than that: the discovery of Slochteren actually made possible the creation of a European gas market. Or, if I may be permitted to offer a variation on the motto I began with: 'we cannot properly understand today's Dutch or European energy economy without a thorough understanding of what was begun over half a century ago in the province of Groningen.' Within just a few years, practically the whole of this country's heating needs were being met by natural gas; and a dense network of pipelines was laid, not just in the Netherlands but also to other countries, in recognition of the extensive gas reserves that had been found. A complete transition in just 10 years!

The Groningen field still plays a significant role, and will certainly continue to do so for decades to come. After all, there are still nearly a thousand billion cubic metres of gas in it. What is more, new small fields are still being discovered. The Ministry of Economic Affairs recently announced in a new edition of the *Annual Report on Minerals and Geothermal Energy* that in 2009 the reserves had once again *increased* rather than decreased. This was due to the discovery of new reserves and the fact that the

Slochteren reserves could be adjusted upwards once more due to the latest production technology. For the time being, then, we are still moving forward. Incidentally, I've noticed that this news made little or no impact in the media and that also the ministry itself didn't think it was worth a press release.

Ladies and gentlemen, this is remarkable, because it contrasts sharply with all the exclusive attention for renewable energy solutions which – though they fire my imagination too – are nevertheless largely still in their infancy.

It must have something to do with image. For instance, last week, four teams from Australia, Switzerland, Germany and South Korea set off from Geneva on a round-the-world journey in a fleet of electric cars. Like Jules Verne's Phileas Fogg, they hope to complete the trip in 80 days. The electricity used to charge the cars has to be green or it wouldn't count as a carbon-neutral journey. One of the participants was interviewed on the Dutch television news. His message was very simple: he claimed that we could all switch to electric cars right now if we wanted to, 'because as you see, we're doing it'.

At such times I try to imagine what would happen if a billion car-owners really did want to follow his example straightaway. Assuming that all those cars could actually be produced as quickly as they were needed, could we then generate the electricity required to run them all based on just wind, solar and biomass energy? Of course, you and I know that this would be totally impossible over the next 20 or even 30 years. So why didn't the reporter raise that question?

Another example: a pressure group called 'Nederland krijgt nieuwe energie' (Holland gets new energy) has collected 40.000 signatures for its proposal to provide the Netherlands with a fully sustainable energy economy. This number forces Parliament to debate it. I fully sympathize with every initiative that aims at making a more sustainable economy, this one included. The good thing about this one is that it explicitly calls natural gas **the** transition fuel. If we want to be successful in the transition period, we can't do without the cleanest and most flexible fuel of today: natural gas. So we should not stop thinking about optimizing the way natural gas is used to make the transition possible.

In the short time that's left to me today, I won't try to explain why in the energy debate, dreams seem to be so little troubled by hard reality. Nor is there any point in doing so. We're not here to question the need for a more sustainable source of energy. Instead, I'll

restrict myself to discussing why natural gas is an indispensable part of progress towards greater sustainability.

Unfortunately, many energy experts and policymakers don't seem to sufficiently appreciate that we really cannot do without natural gas, either today, tomorrow or even the day after that. Not long after I returned from holiday, I browsed through a pile of Dutch newspapers and my eye fell on an article about a recent study by SEO Economic Research. They had analysed the costs of bringing about an 80% reduction in CO<sub>2</sub> emissions by 2050. The researchers had examined two scenarios closely: (1) channelling all investments into fossil fuels + CCS and nuclear energy and (2) channelling all investments into renewable energy. They concluded that the costs and benefits of renewable energy did not significantly outweigh those of clean fossil fuels combined with nuclear energy.

As is usual when you take a long-range view of things, there are uncertainties embedded in this forecast, such as an anticipated oil price of 121 dollars a barrel and a CO<sub>2</sub> price of 180 euros a tonne by 2050. But the most remarkable thing I noticed about the report was that it simply lumped natural gas together with coal and oil. There was not a single word about the separate environmental benefits of natural gas or its economic importance for the Netherlands. Which is staggering, given that a modern state-of-the-art coal-fired power station with CCS emits almost as much CO<sub>2</sub> in the overall energy chain as a normal gas-fired power station without CCS. What is even more amazing when you look at the emission performance of a combined micro CHP unit (*HRe-ketel*) is that taken across the energy chain as a whole, it is twice as efficient as a coal-fired power station with CCS. You've heard me well: **twice as efficient** as a coal-fired power station with CCS. And what is more: the micro CHP is decentral, can easily be combined with solar panels and doesn't create congestion problems in the electricity grid.

This blindness for the benefits of natural gas isn't just an issue in the Netherlands. Gas has a similar image problem in Germany, not only because it is a fossil fuel but also because security of supply is of far more concern to them due to Germany's reliance on Russian gas. The same is true of the EU. The authorities in Brussels, research institutes and the media are always issuing worried statements about Europe's vulnerable position and the need to switch to non-fossil fuels at the earliest opportunity. Of course this is a problem. But problems create solutions as well! The unconventional gas revolution, which made the USA self sufficient again in natural gas, is a reaction to the geopolitical instability. And creates new opportunities in itself.

The European Climate Foundation's *Roadmap 2050*, which Jules Kortenhorst referred to just now, is the latest example of what I mean. It concentrates almost exclusively on the decarbonisation of electricity production. Gas is part of "fossil". The only sentence that stresses the vital nature of gas as a transition fuel is barely taken any further, if at all. In a Roadmap you would expect more about this transition. Of course, especially for the Netherlands this is vital. If natural gas plays such a vital part in your economy you should make an explicit choice for natural gas.

In this context, it is fantastic that last year the minister of Economic Affairs decided to support the Energy Delta Gas Research Program, EDGaR. After all, this program focuses on the future role and availability of natural gas. And it underlines how strange it is that so little attention is devoted to natural gas.

My belief, therefore, is that the energy debate is contaminated by a lack of focus. Mega-wind turbines in the North Sea and the IJsselmeer, new nuclear power stations, coal-fired power plants combined with CCS, tidal energy, geothermal heat, Wubbo's kites ... the impression you get is that everything has to be done right now, and preferably simultaneously. I would like to press instead for an approach that takes greater account of the economic and ecological return on investments. This can then be used as the basis on which to make choices in which qualitatively and quantitatively proven solutions take priority over theoretical future scenarios.

Natural gas, as I have often said both verbally and in writing, has excellent – I might even say the very best - credentials in this regard. Far from adding to the problem, it is an essential part of the solution. Not only is natural gas a transition fuel, it is also a way of achieving ambitious emission reduction targets in an economically responsible way, in both the short and long-term. Thanks to its flexibility, natural gas is also a critical success factor in the vital process of making the economy more sustainable. It is there *if* you need it, and in the quantities *that* you need. It's there when the wind isn't blowing; it's there when the sun isn't shining; it's *always* there. For that reason, we expect the role of natural gas to shift from being a typical base load fuel to increasingly acting as a back-up fuel which can kick in whenever renewable energy isn't available. Natural gas is also set to become increasingly green. The volume of green gas will undoubtedly grow – according to some estimates to reach as much as 10% of total gas production by 2020. This will enable us to combine the benefits of natural gas with the need for sustainable development.

Ladies and gentlemen, I will now briefly return to the availability of natural gas. As I mentioned earlier, reserves of natural gas in the Netherlands are by no means

exhausted. Fifty years or more after the discovery of the Slochteren fields, those reserves are clearly still capable of further growth. EBN has expressed the ambition to produce still 30 billion cubic meters per year from fields outside Groningen. Globally, the picture is yet more optimistic. International gas reserves are huge and will grow still further with the advent of LNG, unconventional gas and green gas. The world's leading oil companies are now making significant investments in the extraction of natural gas. 'Big oil is fast becoming big gas' was the conclusion reached by Reuters earlier this month in an analysis that is worth reading. The European gas infrastructure is being expanded still further to accommodate the flow of natural gas from Russia, Algeria and Qatar in particular. These investments will increase rather than decrease the global significance of natural gas. They also show that gas markets are continuing to integrate, which in my view should substantially alleviate concerns about security of supply.

If I may conclude by addressing one or two comments specifically to the minister: *all this* is precisely what you never lost sight of during the years when you were responsible for energy policy. For us in this country, natural gas has an international, and more specifically a European dimension. The Netherlands can and must continue to maintain a presence on this international playing field. This country was and still is a gas producer, and could continue to be so for many decades to come, *provided* the government makes the right choices. Initiatives that build on the existing achievements of natural gas, such as the Dutch gas roundabout and Project Delta, are perfect examples of what we should be doing. Provided, too, we never forget that nothing stands above Groningen. Because gas from Groningen has not only earned a prominent place the Canon of Dutch History, it is also rightly part of the present and future canon.

Maria, I hope that your successor understands this as well as you have done.

Thank you for your attention.