VATTENFALL

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Gas Generation Call for Evidence
Department for Energy and Climate Change
Area 4E
3 Whitehall Place
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gasgeneration@decc.gsi.gov.uk

Dear Sirs

Call for evidence on the role of gas in the electricity market

Vattenfall is grateful for the opportunity to comment on DECC's call for evidence on "the role of gas in the electricity market".

Vattenfall is a European energy company with interests in gas supply, electricity and heat. We have large scale operations in Sweden, Germany, the Netherlands and the UK. Vattenfall has a strong portfolio of low carbon generation, including wind, hydro, biomass and nuclear, but also has extensive experience with operating gas fired plants and gas storage facilities.

In the UK we operate five wind farms and our development portfolio includes the joint venture with ScottishPower Renewables to develop the East Anglia Zone, as part of Round Three.

We recognize the importance of a good investment climate for gas generation, as gas generation is an important partner to wind generation in ensuring security of supply and controlling balancing costs.

Please find in the following pages Vattenfall's views on the role of gas in the electricity market. If we can help further with any aspect of this important initiative do not hesitate to contact me.

Yours faithfully

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Summary of Vattenfall's views

Vattenfall believes that gas fired generation plays an important role in the electricity market because it scores relatively well on all aspects of the energy triangle: it is a mature and cost effective technology, it is the cleanest of fossil fuels, and it can play an important role in ensuring security of supply, especially in the face of an increasing share of intermittent technology. As long as there is a stable and predictable regulatory market framework, markets participants will have the appropriate and efficient signals for investment in gas generation. Such a regulatory framework does require adequate carbon pricing, liquidity on the electricity wholesale market and wholesale prices to be allowed to move freely. There is no need for specific support mechanisms for gas generation, despite the fact that clean spark spreads are currently unfavourable. In times of economic and regulatory uncertainty, Vattenfall stresses the importance of further coordination and integration of EU energy markets, and particularly the importance of investment in continental network interconnection and an accompanying regulatory framework. We fully support the UK Government's commitment to a low carbon future, but we remain concerned in the short to medium term that fundamental reform of the UK electricity market is an additional source of uncertainty for investors. We hope that the UK Government will meet its timetable for reform and begin to ease regulatory uncertainty.

Answers to the questions

a) What are the main strengths and weaknesses of gas generation in helping deliver a secure, affordable route to decarbonisation through to 2020 and then by 2050?

To a large extent Vattenfall concurs with DECC's analysis on the role of gas in the electricity market. As big investor in wind energy in the UK and operator of gas plants in other countries, Vattenfall believes that gas fired electricity scores relatively well on all aspects of the energy triangle.

Natural gas is a very suitable fuel to use in ensuring security of supply in the face of an increasing share of renewable and nuclear generation. The road to a low carbon future for the U.K. (and European) market involves the use of energy sources that are, to a certain extent, either unpredictable or inflexible. Power generation through renewables relies on weather factors that will not always be aligned with energy demand. Especially in the transition period, in which large investments are made to facilitate a low carbon world, a reliable supporting energy source is needed that can provide security of supply. The bigger the share of renewable energy, the more important becomes the flexibility of this supporting energy source. Gas is well placed to provide this flexible back up in terms of quick start up times and ramp rates.

b) What role can gas fired generation play in the future and what level of gas generation capacity is desirable?

Vattenfall believes that gas fired power plants, possibly combined with adequate gas storage facilities, can play a significant role in the early phase of the transition to low carbon. The importance of gas is amplified by the increasing share of renewables, more strict demands on emissions resulting from the IED/LCPD and the scheduled nuclear decommissioning.

In the long run, gas fired plants can probably continue to play a role in balancing the power grid, due to their flexibility. In our opinion the long term role of any technology is very hard to predict. What level of gas generation capacity is desirable should be a question for the market to decide upon and for individual market participants to make their own commercial assessments. Under the right conditions, market participants will be able to value the pros and cons of each technology and reach an appropriate mix.

c) What are the key factors driving the economics of investing in new gas-fired power generation and how are these factors likely to change?

Please see our answer to question d).

d) What barriers do investors face in building new gas generation plants in the UK? What are the key regulatory uncertainties that may prevent debt and equity investors making a final investment decision in gas generation and supply infrastructure?

The economics of investing in new gas-fired generation are impacted by four factors: current clean spark spreads a lack of market liquidity, regulatory uncertainty and challenging economic conditions with constraints on credit.

Firstly, the current clean spark spread is low. There are two elements to this. On the one hand, the spark spreads are currently low, due to low electricity prices and relatively higher gas prices. On the other hand, the carbon price is currently low. The result of a low carbon price is that coal fired plants are running more, pushing gas plants further out on the merit order, negatively affecting a business case for gas.

However, in line with DECC's thinking, Vattenfall does not believe that the spreads will stay this way indefinitely. Higher electricity prices will positively affect the business case for gas and changing commodity and carbon prices will change the attractiveness of gas relative to other technologies. We believe that the economics of a business case for gas fired generation could change in a relatively short time frame.

Secondly, a lack of market liquidity puts both constraints on efficient hedging, which induces uncertainty, and fails to provide appropriate investment signals. A liquid day ahead and intraday markets is necessary to minimize balancing cost and meet the challenge of an increased share of intermittent generation. For a gas generation business case, it is problematic that revenues cannot be hedged or future prices forecast due to a lack of liquidity further out on the curve.

Thirdly, the energy sector both on a European and UK level are seeing a high level of regulatory uncertainty which has significant negative impact on investment decisions. On an EU level, the continued talks on the future of the EU ETS and the renewable targets after 2020 are crucial pending decisions that pose uncertainty to the market. On a UK level, the EMR has serious impact in terms of regulatory uncertainty on the short to medium term through the introduction of a capacity mechanism, and the transition to contracts for difference. In addition, a case for investment is also strongly affected by regulatory topics like the future role of nuclear, the future system for transmission tariffs and regulation of emissions such as IED/LCPD.

Another important regulatory factor is that electricity prices must be allowed to move freely in order to enable the owner of a gas fired plant to reap the benefits of providing flexible back-up. When additional supply is needed in order to meet demand, wholesale electricity market prices will be higher. The ability to reward flexibility with higher prices in such times of scarcity is at the core of a gas generation business case. Uncertainty about regulatory intervention to wholesale market prices is harmful to the investment case. As long as investors feel confident that prices will be allowed to move freely, there is no need for specific mechanisms that support gas generation.

Finally, the challenging economic outlook has lead many utilities to a focus on maintaining a healthy financial record rather than growth. Although Vattenfall still has considerable investment planned in low carbon technologies and particularly in wind generation, the company is even more selective than otherwise in choosing the right investments on a pan European perspective.

e) Are there any other policy issues that need to be addressed beyond the Government's proposals for the capacity mechanism and the EPS?

Vattenfall is confident that under the right conditions, market participants will use their own commercial judgments and individual expertise to weigh the pros and cons of different technologies and reach a stable energy system. This requires long term policy that is both consistent and credible. Consistency and credibility could be strengthened by increased EU coordination, and less unilateral initiatives, and a better integration of EU energy markets. Two important elements in this respect are the EU ETS as the leading mechanism for carbon reduction and further investment in interconnection and its accompanying regulatory framework (the EU target model).

f) Given a continuing role for gas and the potential for increased volatility in gas demand, to what extent is gas supply and related infrastructure a barrier to investment in gas fired generation? What impact will unconventional gas have on the case for investing in gas generation and the supporting infrastructure?

Gas supply and infrastructure are not currently seen as an important barrier to investment in the UK. Although ensuring adequate capacity at entry and exit points and avoiding congestion in the grid are issues that will require continued attention.