Mrs Fay Geitona
CEER
28 rue le Titien,
1000 Bruxelles
Belgique

27 April 2010

Dear Fay,

Generation Adequacy Treatment in Electricity C09-ESS-05-03

EDF Energy welcomes the opportunity to respond to the call for evidence on generation adequacy. It is one of the main issues that the energy sector will have to face in the coming years, notably in UK where significant investment decisions have to be taken in the short/medium term.

EDF Energy is one of the UK's largest energy companies with activities throughout the energy chain. Our interests include nuclear, renewables, coal and gas-fired electricity generation, combined heat and power plants, electricity networks and energy supply and services to end users. We have over 5 million electricity and gas customer accounts in the UK, including both residential and business consumers.

EDF Energy believes that market mechanisms have delivered and are capable of continuing to deliver frameworks for ensuring optimal generation adequacy, subject to timely adaptation of market rules, consistent with the new low carbon paradigm.

The key points of our response are as follows:

- Stable carbon pricing is critical to new investment in "adequate" generation. Consistent rules have to be developed for supporting emissions reduction through low carbon generation and eliminating the policy uncertainty which is threatening to create a significant hiatus in investment in generation.

- The issue of capacity credit needs greater consideration in order to encourage the correct mix of generation in the system.

- The assessment of security of supply and therefore the assessment of generation adequacy should take into consideration the plurality of risks by generation type, and not merely diversity.

- Demand side policies, helped by appropriate smart metering, will impact investment decisions.

- Each Member State's energy system has particular characteristics, such as natural and renewable resource endowments. This should not be ignored when developing policies at European level that support market adequacy.

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EDF Energy believes that market mechanisms have delivered and can continue to deliver the best framework for ensuring generation adequacy, satisfying the three overarching European objectives of competitiveness, sustainability and security of supply. However, it should be noted that all markets are a construct of rules and regulations. Energy policy objectives have changed in recent years and it is important to align market rules to specifically deliver the objectives of climate change mitigation, energy security and competitiveness to ensure that markets can continue to provide an effective means of achieving these objectives.

EDF Energy broadly agrees with the assessment of the conditions necessary to encourage investment (Chapter2 p9). However, our analysis suggests that the current electricity market in the UK is unlikely to secure the investment required to decarbonise the UK electricity sector by 2030 in an efficient manner and at least cost to consumers. We believe it is important to examine the changes the industry faces over the next decade to understand and evaluate the need for market evolution. Some of the key changes facing the industry include:

- The significant increase in the proportion of the market that is sustained by subsidy and the need to avoid distortions to the operation of the competitive market,
- The large increase in the proportion of high capital, low marginal cost plant on the system (such as nuclear plant), and the need to deliver stable and adequate returns to investors in these plant,
- The significant increase in the level of intermittent wind generation on the system, and the need to ensure that there is an adequate capacity of short term response and standby plant to provide back up for variations in wind output. The challenge will be to provide the appropriate investment signals to secure the investment needed in this plant without undermining the revenue streams for other plant,
- Higher levels of physical interconnection and hence market convergence of the EU electricity markets, and
- The potential impact of electricity storage, demand side management and smart technology on wholesale electricity prices.

It is difficult to predict the cumulative impact of these changes. However, our main conclusion is that apart from the lack of an effective long term carbon price signal, the sector faces considerable and increased uncertainty. EDF Energy therefore believes it is important to consider how these changes could affect the definition of what is considered to be an adequate generation margin and then make an appropriate assessment of generation adequacy.

EDF Energy notes that the coverage of the need for a stable carbon price in the document is slight and indirect. EDF Energy believes that the lack of equitable and stable carbon price, applicable at the same level and over a sufficiently long time frame (in the range of 20 years) to all plant technology types, represents a serious barrier to future generation adequacy. EDF Energy expands on this further below.

EDF Energy also believes that the capacity credit issue has not been effectively discussed or acknowledged within the document. Generation margins can be compared over time effectively only if the capacity credit issue for, as an example, wind (its reliable output as a national fleet at time of winter peak demand) is applied to wind capacity correctly (likewise for, inter alia, wave and tidal capacities).

The document presents diversity as meritorious in its own right; we do not agree with that. The UK, for example, has diversified its sources of gas but increased political risks associated with Russian production and Middle East political stability. In this case, a static measure of diversity of electricity supply will not capture the inherent risks in the supply chain. The measurement of security of supply characteristics is multidimensional and yet critical to understanding generation adequacy. It could include risks associated with price, delivery (especially, and critically, the reliability of deliverability at time of peak demand), as well as the more usual peak margin assessment of energy supply vs. peak demand.

We also note that the CEER document has only slight coverage of the demand side. The roll out of smart meters, stipulated in the 3rd package and already decided in many European countries, should, provided they have open-source and two-way communications, enable some demand response to short time price variations. The suite of solutions that comprise smart grids will involve both passive and interactive measures - some will be based on low impact automated responses, others will include consumers actively responding to price signals and some may even require significant behavioural or lifestyle change. We believe that a number of reasonably well established concepts merit further consideration to understand and quantify their true potential. This further investigation is the critical next step in understanding how this could impact any assessment of generation adequacy.

EDF Energy believes that key barriers to new investment have been accurately identified in the document: we believe there are others that should also be assessed without delay. In terms of maintaining the long-term shape of future generation investments and the climate for those investments, clearly, the investments matching our objective of decarbonising the generation fleet should be low-carbon investments. We believe that pricing has to be equitable between generation technologies not only in terms of the level but also in the duration of its effect. If one set of generation technologies enjoys price certainty regarding the value of its low carbon nature out to a certain date, but another set does not enjoy the same certainty, then this is inherently discriminatory, and may lead to society paying more for a given volume of carbon reduction, while enjoying a lower security of supply.

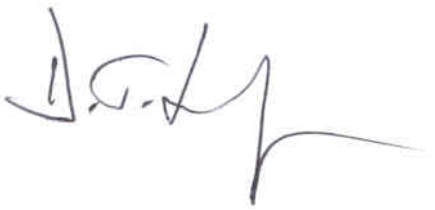
In terms of additional measures, we consider that new interconnection capacity will be constructed where it has merchant value, but that the setting of arbitrary targets for regulated capacity regardless of market value/need/price differential signals would probably represent an uneconomic investment, as well as undermining the case for merchant interconnection projects that may be currently under assessment. The BritNed

interconnector and the way in which it has been able to meet the TPA requirements without exemption clearly show the validity of the merchant model.

Finally, we think that each Member State's energy systems have particular characteristics such as natural and renewable resource endowments that should be taken into consideration when developing policies at European level supporting market adequacy to allow each Member State to effectively use the resources it has available.

If you have any queries on this response or would like to meet to discuss it further, please do not hesitate to contact Sebastian Eyre on +44 203126 2325, or myself.

Yours sincerely,



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