



Ian Marlee
Partner, Trading Arrangements
The Office of Gas and Electricity Markets
9 Millbank
London
SW1P 3GE

New York Road
Shiremoor
Newcastle upon Tyne
NE27 0LP

telephone: 0191 2294315
email: jon.bird@ce-electricuk.com

24 November 2009

Dear Mr Marlee

Project Discovery – Energy Market Scenarios

I write on behalf of CE Electric UK Funding Company and its subsidiaries, Northern Electric Distribution Ltd and Yorkshire Electricity Distribution plc. We welcome the opportunity to comment on the document “Project Discovery: Energy Markets Scenarios”, and I apologise for the late arrival of its submission.

Project Discovery is an important initiative, addressing some of the key challenges that face the energy sector over the next ten years. Before making detailed comments, it is worth making two more general comments about the policy options going forward.

The paper rightly draws attention to the massive amount of investment that will be needed in the UK electricity and gas sector (£200 billion over the next 10-15 years). Much more than this will be needed worldwide. Adequate rates of return will be needed in the UK sector if this is to compete successfully for access to finance. For the competitive part of the sector, this will depend on developing the right price signals. For the regulated sector, the ability to finance adequate investment in networks will depend on Ofgem’s decisions on cost of capital. Security in delivery of electricity and gas will depend in large part on Ofgem’s decisions in this area.

In electricity, reliability is important but security of supply turns largely on questions of capacity: the capacity of the generation fleet and the capacity of the networks to deliver that electricity. The development of smart networks is really about using that capacity more cost-effectively to meet customers’ needs and to aid security of supply. How price signals about that capacity are provided to customers and the providers of generation and network capacity is an important question. It may well be that, particularly given the likely increase in volatility in electricity prices as a result of managing intermittency, a simple price for units may not be able to provide a suitably responsive signal. Volatility equates to uncertainty, which will tend to increase the cost of capital and to delay in commitment to investment. Some form of capacity payment to generators and/or greater time dependency in use of system charges are worth examining as part of a cost effective solution. However, we would

CE ELECTRIC UK FUNDING COMPANY

Registered Office: Lloyds Court, 78 Grey Street, Newcastle upon Tyne, NE1 6AF

Registered in England and Wales. Registered Number: 3476201

If you would like an audio copy of this letter, a copy in large type, Braille or another language, please call 0800 652 6543

note that the widespread introduction of capacity payments with a view to resolving *security* concerns might run counter to any intent to subsequently use price signals to support the transition to a low-carbon economy.

In connection with this, we think that there is an element missing to the paper's definition of secure and sustainable energy supplies in paragraph 2.2. The definition needs to cover customers being able to use their electricity or gas supplies *when* they want to use them or to be offered adequately compensated alternatives to encourage them to shift their time of use (Economy 7 or its equivalent is the simplest example).

Turning to the detail of the paper, it presents four scenarios for future energy supply and demand balance, based on high or low growth, and faster or slower trend towards a green energy mix. It therefore, unlike recent government projections, does not present a simple single view of the future which makes optimistic assumptions about the success of government policies. To this end we think that Project Discovery is making a very helpful contribution to an important strategic debate that is not well served by "singular" views of the future.

There is perhaps an argument for saying that a fifth scenario should be considered, where Europe undertakes appropriate green measures, but these are not matched elsewhere, with consequential implications for the competitiveness of European business. It may be that the consequences of this scenario are bracketed within the ranges of the other four (and certainly there would be less pressure on generation capacity), but if not it would be worth including, if only because it is a wholly plausible outcome.

CE Electric does not claim an expertise in UK energy demand forecasting and detailed points are best left to others. However, we have the following criticisms of the methodology:

- It uses only a single view of electricity demand regardless of the different scenarios. This seems implausible.
- It does not take into account possible contributions to demand from heat pumps and electric vehicles. The latter may have little impact before 2020, but heat pumps are already being installed domestically and contribute to peak electricity demand.
- There is little or no mention of distributed generation or demand side management. What reference there is to DSM is to peak lopping rather than large-scale time shift of demand.

It may be that current energy models have difficulty dealing with these issues. Other recent energy forecasting efforts by McKinseys for the CBI and Pöyry for DECC did the same, and both admitted that their models could not handle DG. Nevertheless, some account needs taking of these issues. It may be they are not material in the context of Project Discovery's deliverables (although CE Electric UK is planning on an assumption that there will be 5GW of distributed generation connected to its network in 2020), but they merit at least a mention.

Other more detailed comments are:

- Paragraph 2.28 refers to the need for substantial public expenditure to deliver the "Green Stimulus" scenario. This is surely unlikely given the current level of Government debt.
- Paragraph 2.66 suggests that little generation investment will be needed in the Green scenarios beyond renewables, CCS and nuclear. None of these are inherently suitable for mid-merit or peaking plant and so, unless demand side management is extremely

successful, some fossil plant will be needed to meet the peak (as recognised in paragraph 3.35)

All the scenarios that you have considered assume that the market will deliver; the different scenarios look at the price consequences that would arise under each scenario. Perhaps as important would be to look at the factors that might lead to a failure of the market to deliver secure energy supplies whilst meeting the carbon targets over the next 10-15 years, and to ask what would happen under a failure scenario. If failure cannot be tolerated, mandated solutions may be preferable to some of the market mechanism being considered. We believe that the project should address these possibilities.

In summary, this is a most timely and worthwhile project and the document Project Discovery: Energy Markets Scenarios forms a useful basis from which further analysis may proceed. I have recently been appointed as CE Electric UK's Head of Sustainability and I look forward to working with colleagues in Ofgem, government and throughout the industry and to give assistance as your project moves forward to the next stage. I will contact you shortly about how we can best contribute to this.

Yours sincerely

A handwritten signature in black ink that reads "Jon Bird". The signature is written in a cursive style with a horizontal line above the first few letters.

Jon Bird
Head of Sustainability