

project.discovery@ofgem.gov.uk

FAO Ian Marlee

Dear Ian,

I write to comment on the results of Project Discovery. I am General Manager of GASTEC at CRE Ltd, a small but well known technically based energy consultancy. We work for the Carbon Trust, Energy Saving Trust, DECC, EoN, BAXI, National Grid and many other big players. We think that Project Discovery has real potential to set the UK on a more robust and manageable path.

1. It would appear that the truly 'free market' in gas and electricity is beginning to disappear before our eyes. Whether this is conceptually good or bad is probably irrelevant. Market interventions include:
 - FIT for electricity
 - RHE for heat
 - ROC and double ROC
 - Special subsidies for CCS
 - 'Under the table' words of comfort for the nuclear industry
 - Capital grants for distributed generation
 - Ad hoc regional money
 - EU ETS certificates new entrants, leavers
 - Sector schemes

As a result, the UK energy scene has effectively become too complicated for most normal Board Members of typical UK energy companies.

2. As the above schemes (rightly) drive up production of wind power and other renewables, the government makes special cases for nuclear and novel CCS, the smaller the window in the annual demand profile for ordinary CCGTs. We will suddenly find banks being asked to fund CCGTs that:
 - May only operate for peak load
 - Will operate at unknown prices
 - Into a market place that may or may not be affected by demand side management and overall demand reduction.

I suggest that this is simply too much risk for the average bank lending to a utility. The interest rates required are going to be much higher than in the 1990s with long term gas and electricity contracts and a fat spark gap. I can see this scenario repeated across any fuel and/or technology that is not specifically targeted for Government support. Add to this uncertainty about future relative gas, oil, and coal costs and there is a real problem. Similar arguments will apply to any technology or plant that is not on the state 'specially favored list' and yet not everything can be of this status.

3. Surely, the obvious answer is for the state to go for tender on a set of different horizons 1 to 20 years for different quantities of energy from different sources. For example, for electricity:
 - 20GW of nuclear electricity capacity to be available 7000hrs/yr for 20years
 - 20GW of CCGT electricity to be called upon at least 1500hrs/yr for 5years etc.
 - 20GW of coal with CCS to be called upon 4000hrs/yr for 15 years etc.
 - 10GW of aggregated power from local generation in 100MW blocks.

Bidders (in p/kWh) would be called upon in order of price ie if a bidder is confident of his low price he could bid low and get higher up the merit order and sell more operating hours. The state can then sell this electricity to retailers. Such a tender system immediately removes a huge level of risk, and the cost of money falls. This opportunity for aggregated blocks could greatly boost the DE sector without the risks associated with FITs etc

4. Exactly the same scenario could be applied to natural gas, bio-methane and hydrogen. The state could allocate blocks of demand to particular sectors and sell to retailers or large users.

One argument against this is the risk of the state misallocating the market shares, but the US papers I have read indicate that in future true private finance in the energy sector could be twice the price of state finance (ie 12% ref 6%). This difference is so vast that, unless the state is totally incompetent, it is extremely likely to end up with a more cost effective and certainly less risky outcome. I was particularly struck in your paper by the absence of moral hazard in the current scenario. Thus when we have a power cut at home (a frequent occurrence) we can do nothing; if the country suffers black outs only the Government will get the blame. The market is too nebulous unlike certain makes of cars with defective accelerator pedals.

Gastec at CRE Ltd are not economists but we have a clear overview of the energy scene, not dominated by the complexities of the current market. If you wanted somebody to develop a transparent and robust model of how you might get from here to 2050, whilst meeting the 80% carbon reduction target, using the above banded tender system for both gas and electricity we would be pleased to offer a price. It would certainly help to produce a less risky future.

Regards

Mark Crowther
GASTEC at CRE Ltd