A Member of The Linde Group

10th March 2011

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Dear Sirs,

Electricity Market Reforms – Consultation document published December 2010

Thank you for the opportunity to comment on the above consultation. I hope that BOC's concise response, structured around general observations and principles rather than specific questions, is of use in your assessment.

Context The separation of Air into Oxygen, Nitrogen and Argon is highly Electro-Intensive, and is one of the critical elements of the supply chain for manufacture of Steel, Chemicals and Glass, as well as for a myriad of other manufacturing and service sectors. BOC is therefore one of the UK's very largest Electricity consumers, and through its Hydrogen sales, a significant user of Natural Gas; as such we are directly affected by the potential changes in this area, and in the Carbon Price Support and Climate Change Agreement debates linked to it. BOC is a member of the Energy Intensive Users' Group, and supports the EIUG response to this consultation.

Principles BOC is a signatory to Climate Change Agreements in two sectors, and an active proponent of energy reduction in its processes. It supports the UK and European government efforts to decarbonise electricity generation and to delay or halt the impact of climate change. The UK's decarbonisation has to take place, however,

1. in a way that does not cause carbon leakage (ie by large energy consumers taking production overseas to locations where emissions are less regulated)
2. using normal plant replacement cycles rather than political ones, aiming for longer-term (2050) goals rather than short-term to meet 2020 targets, which may only be achievable at excessive cost in prosperity for scant environmental benefit
3. using market mechanisms whose impacts are technology-neutral, administratively straightforward and cost-effective
4. within a framework of price and cost predictability for non-energy items, so that investors in both power generation and energy-intensive manufacturing have a stable regulatory landscape, with risk evaluation models driven by the fuels market, but without also having to factor in multiple uncertainties around Carbon Taxation, Climate Change Levy rates, Renewable Obligation uptake, not to mention the recent changes in Distribution and soon Transmission charges.

Summary Responses

Situation analysis. The bare bones of the generation and investment challenges facing the UK are widely agreed; BOC shares the general consensus that unless the market is reformed, then GB power prices will be both the most volatile in the EU, and under most mechanisms, amongst the most expensive. What is essential is that the primary manufacturing sectors on which a refocused, more balanced, green economy is to be built are retained without their competitiveness being undermined.

Contracts for Difference. BOC believes that CfDs is the preferable method of managing support for new investment, as it prevents windfall gains for generation investors, and reduces as it ceases to be required. The contract terms and its strike price are however absolutely critical, as is the counter-party taking the most risk, be that users or taxpayers. If government procurement is to lead such negotiations they should obtain appropriately experienced 3rd party commercial support in this new area of their activities.

Market Prices. BOC believes that for a CfD to function properly a widely traded unambiguous exchange price for power supply is needed; the existing bilateral OTC market works reasonably well for short term balancing and is just about adequate for forward hedging, but 3rd party assessments of OTC prices are neither liquid enough nor universally recognised as a suitable reference.

Long-Term Contracts. These receive insufficient coverage in the consultation; evidence from the industrial tariffs available in France suggests that both generators and consumers can achieve stability and secure returns by linking new investment to multi-year supply agreements. Furthermore, it seems that these are available at prices which significantly undercut current UK delivered prices; they therefore merit further attention.

Capacity Payments. With the current penetration of wind generation onto the GB grid, its intermittency can be managed. The UK's commitment to a high future percentage contribution from wind power drives the need for backup thermal plant, or more extensive demand reduction strategies. BOC notes that the National Grid already has a capacity payment system (its long-term STOR contract structure) and notes its attempts to extend this scheme. BOC therefore doubts that additional underpinning is required in this area, and it would certainly make little sense to provide a blanket support which subsidised baseload generation.

Emissions Performance Standard. An EPS is both un-necessary and illogical in the context of a jurisdiction with a Carbon trading system. Why should an electricity Supplier *not* have a basket of generation assets from a range of technologies, one or two of which might be expensive in carbon emission terms, but might be well suited to make occasional emergency contributions to ensure supply security ? An EPS also undermines the EUETS and introduces a layer of bureaucracy which need not exist.

International Dimensions. BOC is a significant electricity consumer in the Republic of Ireland, and is concerned that at a time when more secure generation is needed the market changes in the UK will increase the price of Northern Irish units, and hence reduce the number of occasions on which are called upon to run, this would also increase costs in the SEM, and hence delay the recovery from recession of one of the UK's largest trading partners. It is also the EU intent that the British Isles and France should be more closely linked with France for future trading, and queries how the capacity payment would affect the interconnection there too.

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Conclusions This consultation is being submitted before the promised DECC / BIS / Treasury joint review of Energy Intensive Sectors has been published, or the Treasury has had time to consider the responses to its own Carbon Price consultation. This asserted that *"For those sectors where electricity costs are a significant proportion of total costs, all businesses in the sector have the same opportunities to reduce the impact of the proposal on their costs. The proposal should not therefore limit their ability to compete with each other*." To which BOC would add "s**o long as they only compete within the UK, and assuming no imports are permitted from places where such burdens are lower**" neither of which applies. The cost increases outlined in these related consultations add further to the considerable cumulative burden of UK energy and environmental taxation and surcharges but offer no relief to energy-intensive manufacturing to allow it to make long-term investment decisions with comparable confidence to that of the power generation sector.

If the UK economy is to be rebalanced in a way that retains manufacturing, and BOC clearly believes that it should be, then it should be a priority to provide its foundations with a full picture of the future cost landscape. Without a comprehensive review of the impact on Energy Intensive Sectors, and measures to mitigate the impacts of Carbon Price Support and Energy Market Reforms, it is hard to avoid the conclusion that in the short term at least, the changes outlined might be detrimental to primary manufacturing, and by extension, affect the competitiveness of other manufacturing sub-sectors.

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