

RESPONSE TO OFGEM CONSULTATION PAPER ‘ DISCOVERY’

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Summary

After consideration of the possible policy packages in the Consultation Paper, it is concluded that a system based on Option D represents the minimum changes required to guarantee both a secure electricity supply as well as delivering value to the customer.

A. General

1. The primary object of the exercise must be to ensure there is adequate generating plant of an appropriate mix and types of fuel to ensure future electricity supplies are secure (within an acceptable level of risk) and at the lowest possible cost. Any mechanism which seeks to achieve this by indirect means (e.g. improved price signals) is unproven and essentially carries a high risk of failure. If it fails, as is all too possible, the damage to the UK economy (not to mention political repercussions) will be immense and, at such a late stage, cannot be rectified in time. It has to be recognised that we are now in a situation when we urgently need a solution that can be relied on to deliver the objectives. This suggests there is really no alternative to direct and positive action such as introducing some form of capacity tendering linked to different types of generating plant.

2. The concern in the Paper that a centrally controlled tendering procedure could result in excessive plant margins or a less than optimum plant mix is overstated. Past experience has demonstrated that over time there is no such thing as ‘an optimum plant mix’ since the costs and availability of fuels both change more rapidly than the mix of generating plant can be adjusted. So what is optimum at one point will be less than optimum at others and vice versa. The proper approach therefore is to test alternative plant proposals for their robustness in a wide range of credible circumstances and to select the best plan accordingly. Nor, as the Paper correctly points out, is the matching of the outturn to the planned plant margin particularly critical in terms of electricity costs. This is because the availability of additional plant facilitates operation closer to the optimum mix (whatever the deviation from expected fuel costs) and this compensates for the higher capital charges in the generation costs. Nevertheless the fact that it will always be difficult to achieve the

optimum plant mix is no reason not address the problem directly as it will surely provide a better result than neglecting it altogether, as does the present system. It would be a serious mistake in present circumstances to allow ideology to steer one towards an attempted solution based on indirect and untried market incentives.

3. Nor is there reason to be concerned that centralised tendering for capacity will stifle or retard innovation. In fact the opposite is more likely. The present system provides little or no incentive for generators to engage in the inherent risks of innovation; shareholder value is more readily guaranteed by low risk, low capital investment which merely mirrors that of comparable 'competitors'. This has been the experience during the twenty years since privatisation during which there has been little or no innovation undertaken by the generators. In fact probably the only such development of note is the installation of increasingly efficient CCGT plant using higher temperature conditions guaranteed under compensational turnkey contracts by the manufacturers. This is in stark contrast to the comparable period prior to privatisation.

B. Operation of Capacity Tenders.

4. A precursor to any Capacity Tendering process will need to be a decision (presumably ratified by Government) on the criterion for security of supply. Pre privatisation this was defined as a failure to meet maximum demand (after relief from voltage and frequency reductions) for four winters in 100years. This was based on probability criteria and with generation virtually all thermal plant, resulted in a planned margin of 28% but a higher figure will of course be required in future to reflect the increasing amounts of intermittent generation and concerns about the reliability of gas supplies. Based on the adopted criterion the System Operator would run a series of studies to determine a preferred plant mix taking into account the levels of risk and the effects on total system costs. And for this to be meaningful it will be essential that the System Operator retain some over-riding powers in the co-ordination of planned plant outages.

5. Since the objective is to achieve this preferred mix of different types of generating plant and fuels there are strong arguments for seeking tenders for each type of generating plant separately, since any alternative system can have no certainty of achieving the desired objective. Conditions of tender will have to be carefully considered so that they do not discourage investment – as the present system does – in more capital intensive plant, such as nuclear, requiring longer construction times and pay back periods. Tenders would be accepted on the basis of capacity delivered (not installed) so that it would remain for the Generator to propose his margins taking into account his expected levels of availability for plant and fuels.

6. The Consultation Paper draws attention to the very high levels of investment required over the next decade and because of this it is likely that the majority of the new plant will be 'project financed' or supported with high levels of debt. If the capacity tenders are to achieve their objectives and consumers derive maximum benefits, the tender periods will need to be long enough to provide assurance for investors and short enough to reflect the required pay back periods for the debt, possibly some 20 to 25 years. It has to be born in mind that the UK will be in competition for this finance with much of the developed world which also requires massive investment in their energy infrastructures. Having sold off our nuclear design and construction industry to overseas countries and with virtually all our generating companies foreign owned, we will face strong competition in attracting the required investment to the UK. Indeed President Sarkozy had already prescribed that the next nuclear stations to be built by EDF must be in France. Without the assurance provided to generators by a well judged capacity tendering process there would seem little prospect of the UK achieving the necessary investment.

7. There will clearly be a lengthy run-in period before new plant committed under the Capacity Tender regime can influence the generation mix and security of supply. During this period all existing plant should be required to tender with the tender period reflecting at least the time required to commission new capacity, say 5 to 7 years ahead. Since with inadequate plant margins all plant tendered will need to be accepted, the process will need to incorporate safeguards to protect the consumer against 'gaming' techniques aimed at exploiting the lack of real competition during the run-in period. One approach would be to award contracts for existing plant at levels linked to those accepted for new generating plant.

8. The charges for centrally tendered capacity will require to be allocated to individual loads in a way that properly reflects their demands on the system. It seems unlikely that this could be achieved efficiently and without excessive bureaucracy other than by central clearing.

C. Energy Trading

9. Since successful Capacity Tenders, will allow Generators access to a high quality revenue stream for many years ahead it seems unlikely that they will seek to recover in their pricing more than the capital charges and perhaps some element of their fixed operating costs. Clearly the introduction of Capacity Tendering requires changes to the Energy Trading market.

10. With Capacity Charges cleared centrally there would seem no real alternative but to revert to a pre NETA trading arrangement with energy charges also being dealt with centrally- through a pool with a single clearing agency. However the very large differences in the operating costs of different types of generating plant demand a radical rethink of the Trading and Settlement System; for example it would be inappropriate for low cost operating plant such as nuclear to be competing in the Energy Market with high fuel cost CCGT's, and to allow such a system could only result in 'gaming' to the disadvantage of the consumer. This suggests that separate tendering will be required for different types of generating plant and indeed some such mechanism will be essential to accommodate 'must run' plant, whether for renewables, (e.g. wind turbines), for system security (e.g. location of plant on the system) or because of plant characteristics (e.g. nuclear, when xenon poisoning of the core restricts load following ability, especially towards the end of each fuel load).

11. It is envisaged that the System Operator would receive bids for energy from plant operators much as in the pre NETA system but with each type of plant being bid separately. Plant would then be scheduled as required to meet the demand curve in order of increasing costs with plant operators being paid as bid. This is considered important as making it more difficult for low running cost plant to inflate their bids towards the level of the marginal cost plant as would be the case with all plant types bidding into a single market. Even so, the bidding process will not be sufficient to deal with the problem of low cost low operating cost plant such as nuclear and must run generation which cannot be penalised by having high bids rejected. For that we envisage it will be necessary to employ additional measures, for example generators receiving a guaranteed rate of return on their audited operational costs with the rate of return modified to reflect their success in controlling costs relative to similar plant.

D. Conclusion

12. It is concluded that there is an urgent need to put in place a Capacity Payments arrangement to ensure the building of the required types and quantities of new generating plant. Only in this way can there be sufficient certainty that the desired objectives of providing proper security of electricity supplies will be secured and at a costs acceptable to the customer. This will require changes to the existing Energy Market with a central clearing system. Measures such as these will go a long way towards providing the assurance required for investment in new high capital cost generating plant although it is noted that in the US, Government underwriting of debt has also been found necessary. The proposals should also be effective in providing a more level playing field for new entrants leading to enhanced competition in generation.
