

12 Views of other interested parties

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Introduction

12.1. In this chapter we summarize the evidence we received from third parties.

Other generating companies

Barking Power Limited

12.2. Barking Power Limited, an independent power producer, said that much of the detail in Ofgem’s initial submission referred to the history of the Pool. The detail was either out of date because of changes to the Pool or irrelevant because current market conditions differed substantially from those that had previously existed. There was obviously a potential in any market for those with substantial market power to abuse that power. However, in practice, the design and structure of the current electricity trading arrangements precluded or reduced the value of many of the examples of the potential market abuses that Ofgem put forward in its submission.

12.3. Barking Power Limited believed that the existing regulatory regime, under which the DGES already had extensive powers, and general competition law were adequate to deal with any market abuses that might be observed or suspected in the future. The introduction of the MALC on a general basis would increase regulatory risk which in the longer term would raise the cost of capital and discourage new entry, with consequent adverse effects on both security of supply and customer prices.

BNFL Magnox

12.4. BNFL Magnox, a subsidiary of BNFL, was established in 1996 to operate the Magnox nuclear power stations.

12.5. BNFL Magnox said that, after taking a full part in the consultation process for the MALC, it had accepted the licence condition. However, it had concerns that its introduction implied that the Competition Act was unable to deal with the particular characteristics of the electricity market. BNFL Magnox believed that the Competition Act should provide sufficient powers to deal with any anti-competitive behaviour. It was also concerned that using the test of substantial market power rather than abuse of a dominant position added to uncertainty in the market because it would not have the benefit of existing case law and the certainty of the principles to be applied.

12.6. BNFL Magnox noted that when Ofgem chose to enforce the licence condition it was not bound to follow the advice of the Advisory Body. Additionally, there was no right of independent appeal other than on whether the due process had been followed. Although decisions taken by Ofgem under the licence condition were susceptible to Court challenge through judicial review, BNFL Magnox believed that this was less than ideal when compared with the appeals route available through the Competition Act. It was also concerned that the condition had been introduced in a discriminatory manner, arguing that, if regulation were required, it should apply to all and not just a few.

12.7. BNFL Magnox was pleased that Ofgem had withdrawn its investigation of Edison under the MALC. It said that it was concerned about the control the DGES would have in directing plant to remain on the system as was implied in the methodology used in the calculation of costs in the Edison investigation. To use the avoidable cost principle to determine whether a plant should run was unacceptable, and would lead to an administered price regime which conflicted with the market principles underlying NETA. Any fears about market abuse should be allayed by the cooperation between the industry and Ofgem in the development of the Balancing Mechanism and NGC’s ability to contract for reserve power ahead of time. The market should be allowed to operate without further interference.

12.8. BNFL Magnox noted that, in commenting on British Energy's incentives, Ofgem had indicated that inflexible plant, such as nuclear, might try to cover any greater risks under NETA by manipulating the market. It found this accusation unacceptable given that all operators were trying to do was recover their costs at prices which had been set by the market. Further, the bidding structure of all participants in the Balancing Mechanism would take into account the total portfolio and not just a single plant or plants based on fuel type: any suggestion to the contrary was unreasonable.

12.9. BNFL Magnox said that, because its agreed operating regime for its nuclear plant required it to minimize unnecessary load cycling and the overriding consideration of a nuclear generator was safety, commercial interests would not impinge on this. Withdrawal of capacity would occur only for technical or safety reasons.

Edison Mission Energy

12.10. In Edison's view the MALC was not necessary since structural changes to the market had already increased competition to levels where abuse of substantial market power was not feasible. Regardless of this, Edison had signed up to the MALC because it did not intend to act other than in accordance with good market behaviour, and on the basis of certain assurances from Ofgem in relation to the manner in which the clause would be implemented. It believed that these assurances had subsequently not been adhered to. However, in Edison's view, if the CC concluded that some form of MALC should be imposed for the period before the implementation of NETA, the type of conduct that would be caught by the condition needed to be made clear. Edison's experience from the investigation into its temporary withdrawal of capacity had shown that the current wording of the MALC was too broad and the process of enforcement lacking in appropriate checks and balances. (That investigation, including Edison's views thereon, is dealt with in Appendix 8.1.) Our alternative proposal (see Appendix 2.1, Annex B) appeared to address many of the issues Edison had raised.

12.11. Edison welcomed the intention to use precise inclusive definitions for both market manipulation and conduct that had an adverse effect on wholesale electricity prices. It also welcomed the fact that our proposed condition was not based on a market power test. It supported the proposed requirement that Ofgem should examine whether, at the time the relevant decision was made, the licence-holder should reasonably have expected its action to have an adverse effect on prices. Edison said it was important that the proposed condition should expire on the implementation of NETA.

12.12. Edison said that it was critical that the CC should be involved in fixing the contents of guidelines on the condition. The guidelines needed to be more precise than the current MALC guidelines and to establish a more balanced process for any investigation.

12.13. Commenting on the detail of our proposals, Edison said that the definition of manipulation needed expanding to include actions which deliberately lowered market price. For example, item 2(a) in the draft condition needed to be expanded to include the declaring of generation capacity as commercially available when it was technically unavailable and unable to operate. Similarly, item 2(c) should encompass the possibility of prices being set at a higher or lower level than would otherwise be the case.

12.14. Edison supported our intention of specifically defining the types of action and/or omission that would amount to breach of the condition, since this would provide clear criteria for market participants. It suggested that the condition and guidelines should take account of basic principles of commercial behaviour. For example, players should be able to take account of uncertainty over future market conditions in making decisions about capacity withdrawal or closure. The guidelines needed to be drafted in such a way that they did not prevent or restrict appropriate response to market conditions.

12.15. In Edison's view, any MALC would need an independent review mechanism. It was vital that licence-holders had direct and unrestricted access to this tribunal, including the opportunity for a hearing before it. Edison considered that this independent tribunal should comprise expert assessors and not be reliant on Ofgem for staffing. Market participants should be able to communicate directly with the tribunal with no screening by Ofgem, and submissions to the tribunal by Ofgem should be disclosed to the licence-holder under investigation.

12.16. On procedural questions, Edison said that the tribunal should hold hearings and give its opinion after publication of the regulator's initial findings. The tribunal's decision should be given in writing and be confidential to the regulator and the licence-holder. If the DGES decided not to accept the

tribunal's decision he should state his reasons in writing and the licence-holder should be allowed to make representations before publication of the final decision.

12.17. With regard to Ofgem's investigation process, the licence-holder should be given a reasonable amount of time (Edison suggested not less than one week) to respond to requests for information and to comment on interim findings.

12.18. Edison supported Ofgem's confidential guidance procedure. It said that the guidance was needed to give market participants greater certainty about their actions.

Entergy Wholesale Operations

12.19. Entergy Wholesale Operations (Entergy) is a division of Entergy Corporation, a US-based global energy company. It currently has two CCGT generating plants under construction in the UK: a 1,200 MW plant at Saltend, Hull, and an 800 MW plant at Damhead Creek, Kent.

12.20. Entergy said that the MALC represented regulatory interference and a barrier to new entry, and ran counter to existing principles of competition law. Given the changed structure of the UK generation market, the more than adequate powers of Ofgem and the FSA under the Competition Act and the FSM Act respectively, and the forthcoming implementation of NETA, the MALC was not only unnecessary but created a dangerous level of regulatory uncertainty in the marketplace.

12.21. Entergy was a new entrant to the UK generation market. It said that the lack of information and certainty would discourage new investment decisions and favoured those participants which were incumbents with a UK base. The MALC as currently drafted created uncertainty and a barrier to new entry, which might even force recent entrants to reconsider investment decisions made in the context of a former DGEN's competitive environment. Entergy was concerned that many of the decisions surrounding enforcement of licences were never made public and therefore the reasoning behind the regulator's decision in any one case was not easy to determine.

12.22. Entergy was willing to submit its actions to a fair and objective system of control applied to all sectors of industry, and to that end believed that the DGEN's extensive new powers under the Competition Act were entirely adequate for this purpose. With the advent of NETA the instances where, for example, short-term withdrawal of capacity by anything other than a large generator could significantly affect price would be rare.

Innogy plc

12.23. Innogy told us that it was the UK company which had been created as a result of the demerger of National Power into a UK company and an international company in October 2000. National Power was one of the two non-nuclear generators created in the reorganization of the CEGB in 1990 in preparation for privatization a year later.

Market definition

12.24. For the remaining life of the Pool, Innogy supported a market definition based on total capacity less baseload capacity set retrospectively. Under current arrangements, issues within the price-setting segment of the Pool were generally the main focus of regulatory scrutiny and concern. With this definition, the price-setting segment would be appropriately represented. NETA, on the other hand, was intended to put price responsibility on all market participants, not just on those which operated at the margin; it would be appropriate, therefore, for the market to be defined by total output.

12.25. Innogy said that if the Balancing Mechanism required definition, it should be in terms of available capacity, which was within the scope of gas, oil, coal and interconnected generating companies. It was the capacity to participate in the mechanism rather than the actual level of participation that defined the market.

12.26. Innogy said it understood that there were no longer any local transmission constraints. In any event, issues surrounding bidding policy regarding these constraints had been adequately dealt with

following previous OFFER investigations. In 1992 OFFER had identified the bidding of constrained-on plant as ‘designed to exploit local market opportunities, some of which may be short-lived in nature’. The DGES appeared to consider that such behaviour would be a breach of the MALC. However, Innogy felt that taking advantage of bidding opportunities of this kind was acceptable in a competitive market and that there was no justification for intervention. Concern and intervention were merited only when such opportunities were long-lasting, and when the entry of new players, in response, was restricted. Where profitable opportunities were short-lived, no response would be expected under even the most competitive entry conditions. Innogy said the DGES’s position suggested that a cost-recovery strategy which relied on the importance of the stations to NGC would be deemed abusive. If this were the case, efficient and costly investments to facilitate NGC’s role in achieving system security would inevitably be deterred. It would be inefficient and against consumers’ interests for generating companies to have a licence condition that systematically prevented the recovery of prudent investment costs.

Market power and abuse

12.27. Innogy said that there was no clear link between price-setting, manipulation and abuse of market power. Price-setting arrangements in the Pool had provided an efficient, minimum-cost dispatch solution since privatization and generators had adapted to this. Different forms of bidding had evolved within the parameters of the rules but this had not necessarily resulted in abuse. Innogy acknowledged, however, that there might be a need to amend rules or introduce new ones.

12.28. In Innogy’s view, generating companies should be permitted to recover the substantial fixed costs invested in their generating plants. How this was achieved might vary as conditions changed and new players entered the market. Such adaptations would indicate competition rather than abuse of the market. Depending on the availability of particular generators, different bidding strategies might be required. Price alone did not determine the use of a particular genset: it was not unusual for a more expensive but more flexible genset to be scheduled ahead of a cheaper and less flexible one. As a result, a company seeking only to recover total costs would be expected to vary its bid prices as demand or supply conditions fluctuated even if its costs remained constant. Such behaviour could not be construed to be abusive.

12.29. Innogy said that the issue of price comparisons in different periods raised questions regarding the identification of clear competitive benchmarks. It said that benchmarks were potentially dangerous because they might rely on rules rather than on guidelines. Since every situation ought to be properly and independently assessed, there could not be a presumption in favour of benchmarking. There was a risk that benchmarking would lead to regulated prices rather than reliance on market forces. It was concerned that the DGES intended to establish benchmark strategies for each licence-holder based on how it might behave in fully competitive conditions. It understood that the test of a generator’s market power would depend on assumptions about the behaviour of other generators in fully competitive conditions. Clarity in definition would be required: on the behaviour of individual generators in fully competitive conditions, and on whether such behaviour would be assessed against real conditions or against conditions in which every other generator was assumed to behave fully competitively. Innogy added that there had to be recognition, too, of the overarching need for flexibility and of the non-static nature of the market.

12.30. In the absence of clarity, questions would arise about the DGES’s possible response to the interpretation of such competitive issues. In interpreting ‘competitive levels’, he might, for example, impose a benchmark that conflicted with other principles of competition policy or which was inconsistent with efficient behaviour in the energy market; both went against the underlying principles of the legislation. In interpreting ‘fully competitive conditions’, the DGES might adopt a rule requiring prices to be based on marginal costs, total variable costs, avoidable (fixed and variable) costs or total costs. The first two of these would result in substantial losses for many undertakings and would not be consistent with the maintenance of an efficient energy sector. Permitting only avoidable costs would prevent recovery of sunk costs, and this would create problems where such costs were significant. The application of the fourth rule, whilst common, required understanding and investigation of total costs.

12.31. Innogy said that to measure the effect of a price rise on profits over very short timescales was wrong. It was essential to consider a reasonably long period since the profitability of a few individual trades provided little indication of abuse. It added that to be considered abusive price rises had to be non-transitory, but that this did not have to be over a specified period of a year. The key variable in defining ‘non-transitory’ was the time that the market took to respond to high prices. If competitors responded

rapidly, there would be no need for regulatory intervention. High prices provided a useful market signal and would provoke an efficient response by both competitors and consumers. Given that prices were in the public domain and that supporting cost information was readily available to the regulatory body, the opportunity to engage in and sustain market abuse would be severely constrained by the public nature of the activity.

12.32. Innogy referred to the DGES's criticisms of generators' bidding strategies in recent years, in particular where National Power and Powergen had been found to have used their positions of market power to increase wholesale electricity prices by significant amounts when other market conditions and costs had remained unchanged. It said that organizations constantly searched for strategies to recover fixed costs and to respond to the strategies of their competitors. Competitive pressures fluctuated over different periods in ways not directly associated with variations in cost and demand conditions. Responses to such variations did not necessarily constitute an abuse of power. Innogy suggested that economic efficiency required companies to be able to recover fixed costs when higher prices would have least impact on demand. Low prices might not be a stable equilibrium, and the market would drive prices up to levels which were sustainable. The test for abuse of market power could not involve consideration of short-term price changes but should be based on factors that included profitability over the medium term. Innogy added that Ofgem had not found that either National Power or Powergen had abused market power in their bidding behaviour.

12.33. Innogy's comments in relation to manipulation of complex rules were similar to those on bidding strategies. The scope for manipulation had to be considered against discouragement of pro-competitive efficient behaviour. Outright prohibition of the use of different bidding strategies within the price mechanism would form a major impediment to innovations in bidding strategy; innovations were to be expected in a competitive market as companies adapted behaviour in order to gain profitable advantage over their competitors. Whilst the search for profitable opportunities was the force that drove competitive markets and produced the efficiency gains for the consumer, undue restrictions on commercial freedoms would be inconsistent with the DGES's duty to promote competition, efficiency and economy, and to protect the interests of consumers.

12.34. Whether or not a generator could bring about substantial changes in wholesale prices and therefore meet the DGES's definition of substantial market power, Innogy believed that the Competition Act had adequate flexibility to cover the DGES's concerns with respect to abuse of market power. There had been times when, for a number of reasons, Pool prices had spiked; the generator that had set the price might not be known for several days, not even to itself, since the occurrence might be a consequence of a generation stack and changing exogenous factors. Innogy considered it doubtful that a generator could consistently, over time, manipulate prices for its own benefit.

12.35. Innogy said that a definition of abuse should concern the prevention of effective competition, not the relationship between prices and costs. The fact that generators had experienced declining profits over a number of years, despite efficiency and productivity gains, suggested an increase in competitive intensity which appeared to contradict notions of systematic abuse of market power. It was difficult to argue that market abuse by generators had caused the general level of prices to be significantly higher than it would have been in a fully competitive market, given the dampening effects caused by other distortions in the marketplace since privatization. In particular, Innogy referred to the coal-backed supply contracts, the Pool price cap imposed in 1994 to 1996 and, more recently, the gas moratorium which had delayed the progress of the new CCGT plant. It concluded that it was now more important to focus on the new trading arrangements which were being introduced in order to address the imperfections and lessons learnt from the current trading arrangements.

Market abuse under the Pool

12.36. Commenting on aspects of current trading arrangements which made them vulnerable to abuse and might lead to excessive prices, Innogy said that it agreed with the DGES's view that electricity markets had much in common with other commodity markets. The different characteristics of electricity could now be seen to be a question of degree. The complexity of Pool rules in itself did not invalidate the application of competition policy; many other industries were subject to complex working arrangements or production conditions.

12.37. Innogy acknowledged that the marginal generator set the Pool price for each half-hour clearing price but added that it was an entirely different issue whether that company had abused a position of power in setting a high price. With the changes to be introduced under NETA, price responsibility would be on all market participants. Innogy assumed that arrangements under NETA would be considerably less vulnerable to potential abuse. Innogy considered that, under the current Pool-based arrangements, the contracts market had not developed as expected. The dampening effects caused by other distortions in the market (see paragraph 12.35) had had more influence on the development of liquid contract and trading markets than any other factor. The fact that transparency of information on contract and trading markets had been slow to develop was due to the fact that fewer than half of EFA association members traded regularly. As more players traded, both transparency and liquidity would improve. Whilst it would not be compulsory under NETA for companies to participate in the short-term exchange, it was likely that they would do so. Contract liquidity concerns would, therefore, be addressed.

12.38. Innogy said that, because of the level of new entry since privatization, capacity payments had been lower than the fixed costs of marginal plant and closures had resulted. The capacity payments mechanism was complex and frequently led to outcomes that did not appear logical, particularly during summer periods. Capacity payments were affected by, among other things, plant margin. Factors such as the closing of plants for summer maintenance could result in the apparent anomaly of summer plant margin being similar to that in winter. Under NETA, capacity payments would not be explicit and, therefore, not an issue.

12.39. Innogy did not agree that current Pool arrangements made it difficult to change the rules. Pool rule changes had been successfully implemented and these had addressed the concerns of the regulator. The weakness in the existing system was in the ease with which appeals could be made to the regulator and the protracted period taken to resolve issues. Innogy suggested that an independent body owned by market participants and responsible for Pool rules would have provided a better governing framework. A major concern with NETA was that the ability to make changes to market arrangements would be in the hands of GEMA. The experience of the gas market was that frequent intervention in market rules created confusion and tended to destabilize the market. This, in turn, increased market risks, discouraged new entry and led to increased regulatory intervention.

12.40. Innogy commented on the suggestion that the Pool's vulnerability to manipulation had led to suppliers and customers paying high premiums for risk-avoidance in their contracts with generators. It acknowledged that suppliers were willing to pay a small premium over Pool price in order to manage the risks posed by price volatility, but suggested that such hedging arrangements were normal. Short-term fluctuations in Pool prices had had little effect on contract prices and significantly less effect than perceptions about the long-term balance of supply and demand and competitive pressures. Allegations of abuse had related to short-term actions but the forward contracts market tended to smooth out short-term fluctuations in the Pool. Pool prices recently had been in decline as the industry had removed cost and competition had increased.

Market abuse under NETA

12.41. Commenting on aspects of NETA which might reduce the risk of market abuse, Innogy said that contract liquidity had already improved with the prospect of NETA and was expected to show further improvements. Overcapacity, liquidity in the contracts market and system flexibility, together with very high competitive intensity, would make it impossible, under NETA, for generators to exercise market power in trading arrangements outside the Balancing Mechanism. The NETA pay-as-bid system would encourage all market participants to compete for price and volume. It had been suggested that the Balancing Mechanism could be an area of potential abuse but it, too, would be a pay-as-bid system and the focus of attention should be on the number of participants in the market. Provided there were sufficient active players, the scope for abuse should be minimal. Moreover NETA would encourage the demand side to extend its response capabilities. There were concerns, however, about the effect of the MALC being included in generators' licences under NETA. Those who had complained about the Pool would continue to do so about the Balancing Mechanism; they would not consider innovative demand-side market solutions, which would be more appropriate and easier to manage than under the Pool given that prices would be set closer to real time.

12.42. Innogy said that liquid markets based on large volumes of trades were essential to the success of NETA. This necessitated speculative interest which, in turn, would contribute to volatility. These were features of effective commodity markets. The imposition of an excessive regulatory burden by way of a

market abuse condition was likely to stifle effective market development and set at risk the establishment of large-volume liquid markets.

12.43. Commenting on expectations, under NETA, for improved price transparency, Innogy said that, as had been seen in other markets, the development of power exchanges, together with reporting mechanisms, would create price transparency. Any vulnerability of the market process to the exercise of power by generators should be significantly reduced by two factors. First, the introduction of a rolling 3.5 hour Gate Closure in place of a once-a-day submission of prices would enable generators and demand-reducers to compete for all parts of the load shape. Secondly, exposing participants to the consequences of imbalances would encourage competition in contracting to match supply with demand. A very large proportion of market participants would be able to take part in the Balancing Mechanism if prices were attractive. Innogy expressed concern that the design of the Balancing Mechanism placed considerable market power in the hands of NGC which might be encouraged to exercise that power in pursuit of objectives set by an incentive scheme. This was unlikely to align with the short-term needs of the electricity market. Innogy was also concerned about the role of NGC in preventing perceived market abuse in the Balancing Mechanism through dispatching reserve. This was one of the biggest threats to the integrity of NETA. System operation was incompatible with market participation, and the conflict of interest was not reconcilable.

12.44. Referring to the proposals for weighted average cash-out prices under the Balancing Mechanism, Innogy said that these did not discourage participants sufficiently from being out of balance. They might encourage much greater volumes in the Balancing Mechanism than intended. Although, under NETA, there would be no specific capacity payment mechanism, Innogy believed that capacity withdrawal and investment in plant should continue to be a matter for the commercial judgement of generators, based on returns available.

12.45. Innogy said that the governance arrangements of the Balancing Mechanism would make it relatively easy for rule changes to be made and that, if particular rules proved vulnerable to manipulation, there would be prompt changes to prevent a recurrence. However, it remained concerned that the ability to make changes to market arrangements would be in the hands of GEMA.

12.46. Innogy commented on the extent to which outcomes in the Balancing Mechanism, as regards both the level and volatility of prices, were likely to affect contract and other prices outside the Balancing Mechanism. It said that the different parts of the market would be interactive, but it was likely that contract prices outside the Balancing Mechanism would smooth the volatility within it.

Other constraints on the abuse of market power

12.47. Innogy said that with the expected introduction of NETA and the ending of the moratorium on new gas-fired plant timed to coincide with this, together with over 10 GW of generating plant having changed ownership during the past 12 months, competition in generation had all the necessary ingredients to work effectively. Competition in the industry should proceed without excessive regulatory intervention; it would be effective, and the scope for abuse would be minimal.

12.48. Innogy said that it had no expertise in the FSM Act. It understood, however, that the legislation would cover electricity forward and futures markets and that they would be classified as RIEs. Innogy would expect the FSA to have the power to investigate any market player in relation to power exchange trading. The FSA would have powers to impose civil sanctions including fines on any person, individual or corporate entity breaching basic precepts relating to market manipulation and information abuse. Innogy said that the FSM Act applied to organizations conducting trading in investments and covered energy trading. Any market manipulation through a dominant position or price manipulation would be covered by the Act and through the regulated exchange rules that would apply.

AES and British Energy

12.49. In Innogy's view, the scope for the AES and British Energy licence-holders to abuse the market under either the current Pool-based trading arrangements or NETA was no different from that available to any other company. Similarly, in the event of market abuse by AES or British Energy licence-holders, the nature and extent of adverse effects would be similar to those caused by any other company.

The MALC

12.50. Innogy said that before agreeing to the inclusion of the MALC in its licences, National Power had sought and received by way of clarification a better understanding of the way in which the DGES would use the condition in practice. It had also been assured by Ofgem that there would be further consultation on whether a MALC should re-emerge among the standard licence conditions to be implemented under the Utilities Act and applied to NETA.

12.51. Innogy's views on the MALC centred on two points. First, it believed that competition law, as set out in the Competition Act, was the correct framework within which the industry should work. Whilst in Innogy's view the MALC was unnecessary, it had accepted it on the basis that the regulator would align his enforcement of the condition to the principles of competition law. Innogy considered it wrong in principle to have different prohibitions in different sectors, and wrong to adopt different definitions of dominance for different markets. It considered the economic principles underlying all markets to be the same. There was a lack of clarity in how the test proposed in the MALC would be interpreted. In particular, it questioned how Ofgem might interpret 'substantial market power' and feared that, with the digression from the principle of dominance which was established in EC law, the application of the prohibition would lead to confusion, unpredictability and unfairness. Secondly, Innogy said that the introduction of such a licence condition brought into focus the wider issue of an equitable appeals process for licence-holders. Currently Innogy had the right to seek a judicial review of the process followed if enforcement action was taken under its licences. Given the severity of the remedies which would be available to the DGES in the future, it believed that an appeal on the merits to a judicial or quasi-judicial body was also appropriate.

12.52. Innogy was also concerned that the MALC sought to impose a threshold for regulatory intervention that was lower than, and went beyond, current EC competition law and the Competition Act. It suggested that 'substantial market power' was potentially more inclusive than 'dominance' in that it would enable the DGES to catch a wider set of market participants than under Competition Act provisions. The imposition of the MALC was completely at odds with government policy in encouraging the development of a market for energy: it sent out confusing signals to existing and potential participants. Innogy referred to possible adverse effects resulting, for example, from additional uncertainty for generators or other market participants. Ofgem's investigation of Edison provided an insight into some of the issues likely to arise. There was concern especially that, although Edison had received guidance from Ofgem, it had subsequently found itself accused of abuse and had been required to return plant to service earlier than anticipated, a situation not necessarily in the company's best interests.

12.53. Innogy said that the imposition of the MALC did not allow for:

- (a) the impact of recent plant disposals;
- (b) the demerger of National Power;
- (c) the effect which the introduction of NETA would have on competition in the wholesale market;
- (d) the potential for further plant sales by generators: both Powergen and TXU were actively marketing generating plant; and
- (e) the likely resurgence of new entrants given the ending of the moratorium on new gas-fired plant.

12.54. In summary, Innogy said that there now existed a MALC which, whilst acceptable given Innogy's current understanding with the regulator, was unnecessary in the light of an increasingly competitive industry and the introduction of NETA, which would move the industry to a more competitive commodity market structure. The Competition Act should be sufficient to regulate it.

Compliance procedures

12.55. Innogy provided us with a copy of its Energy Management Centre Bidding Guidance Manual. The Energy Management Centre was seen as a key area where Innogy was at risk of regulatory scrutiny. The manual was one element in Innogy's approach to satisfying regulatory and commercial requirements.

12.56. The manual set out Innogy's objectives and summarized the bidding principles it sought to pursue in order for individual power stations and the company as a whole to earn a reasonable return. Innogy's portfolio of plant would generally be priced in a merit order based on short-run marginal costs, so that any given level of generation might be produced at least cost.

12.57. Innogy's policy was to base bids on a price-volume curve. It aimed as far as possible to offer into the unconstrained schedule a set of bid prices for successive MWs which did not vary with day-to-day changes in availability but could be influenced by the company's contract position. If, for example, a unit became unavailable at day-ahead stage, Innogy would reduce the prices of all lower-merit gensets so that the Pool would effectively see no change and, other things being equal, there would be no effect on SMP. The best indicator of Innogy's bidding behaviour was thus the overall price-volume curve rather than the bid prices of individual units.

12.58. The manual gave brief details of methods used by Innogy to achieve its aims. Some of them included provision for prices not strictly consistent with the principles set out in paragraph 12.57 but which might be used for sound commercial reasons. These methods included constrained-on plant, constrained-off plant, price structure, inflexible pricing, final incremental prices, inflexibility markers, low price periods/gas arbitrage, negative metered payments, OCGT testing and clearing of general failure indicators. In conclusion the manual said that the short-term commercial optimization of Innogy's generation portfolio would be in accordance with these principles. As new market situations developed, it would seek to optimize its position but its methods would be based on the above principles, and would follow consultation with the appropriate regulatory body.

NRG Energy Ltd

12.59. NRG Energy Ltd (NRG) is a new entrant to the generation market in England and Wales, having purchased Killingholme power station from National Power early in 2000. It said that it had aspirations for growth and was currently considering both greenfield development and the acquisition of existing plant.

12.60. NRG was concerned that these very substantial investment decisions should be taken against a reasonable framework of rules. It commented that ill-defined regulation could result in a lack of confidence both among current players in the market and for the future. NRG's instinct was to change ineffective rules rather than to pursue generators which had taken advantage of them. However, if the CC decided that the MALC or a similar condition was necessary, then it should be well defined and clearly understood.

Powergen UK plc

12.61. Powergen is one of the two non-nuclear generators created in the reorganization of the CEGB in 1990 in preparation for privatization a year later.

Market definition

12.62. Powergen said that, under existing trading arrangements, the Pool was a compulsory and separate market for trading electricity, although it interacted with related contracts markets. Powergen viewed the Pool as a unitary market, in which a single merit order of plant was dispatched for generation in order of bid price, starting with the lowest. Whilst other plant was capable of flexible operations within the Pool, the technical characteristics of nuclear plant limited its flexibility of operation. However, it was still capable of offering a variety of generation profiles to the contract market since differences between actual generation profile and the profile sold could themselves be traded. Powergen believed, therefore, that total output was the appropriate basis for assessing the overall position of companies in the wholesale supply of electricity.

12.63. Powergen did not believe that there was a separate market in price-setting capacity. Although much generating plant made itself ineligible for determining the SMP under Pool rules by declaring itself inflexible for commercial reasons, it still influenced price-setting by influencing where the merit order

intersected with system demand, and through contributions to the calculation of capacity payments. In addition, plant could move in and out of being a price-setter. Powergen did not believe there was a market for each of the half-hour bidding periods. In terms of supply, there were operational limitations on how far generators' physical positions could be changed between one bidding period and the next, so that individual periods could not be considered in isolation. Furthermore, as a consequence of the Pool-based arrangements, the same bid prices applied to each 48 half-hour bidding period on any given day.

12.64. Powergen adopted a definition of baseload generation as the output which met continuous demand even when that demand was at its lowest level,¹ and non-baseload generation as total output less baseload output. Mid-merit generation and peaking generation both formed part of non-baseload generation. The fact that all generating plant was capable of operating in a way that provided both baseload and non-baseload generation illustrated the unitary nature of the wholesale generation market. Thus it would not be meaningful to approach market definition using total capacity less baseload capacity since the latter could not be uniquely identified.

12.65. Powergen said that, under NETA, the unitary nature of the wholesale electricity market would become clearer. The Balancing Mechanism had some of the characteristics of the Pool; however, trading through it would be optional. Powergen expected trading on power exchanges near to real time to be a close substitute for trading in the Balancing Mechanism. A further degree of substitutability was recognized in the discretion given to NGC on how to minimize balancing costs, including the ability to trade energy. The market, under NETA, would represent the totality of the various short-term markets, of long-term bilateral contracts and the Balancing Mechanism.

12.66. Powergen accepted Ofgem's view that the short-term nature of many local transmission constraints meant that opportunities to exploit local market power were continually changing, so that there was no fixed 'constraints market' that could be defined on a continuing basis. Powergen said that it would be generally impractical to incorporate transmission constraints into market definitions, in particular when NGC was able to relieve these by technical and economic means, whether in the short term by rerouting power flows, or in the longer term by investment in transmission systems.

Market power and its abuse

12.67. Powergen said that regulatory concerns over price-setting in the Pool were an inevitable consequence of the structure of the generation sector put in place at Vesting. The combination of two large non-nuclear generators and the SMP system had created a classic dominance problem which had only recently been fully remedied by a combination of new entry and divestment of existing plant. In the intervening period a number of regulatory inquiries had each identified specific instances in which market power had allegedly been used to raise Pool prices but had not assessed whether the resulting level of prices had been excessive.

12.68. Powergen referred to reports by Ofgem into generators allegedly 'gaming' the Pool rules, through earning high capacity payments through use of availability declarations, being paid start-up costs twice and increasing the incidence of price spikes. On each of these occasions, the Pool rules had been changed to prevent further gaming of the kind identified. Powergen believed that such rule changes were a more appropriate means of addressing the problem than the MALC. It suggested that, in order to encourage self-regulation, the DGES might require generators to draw up and publish codes of conduct.

12.69. Referring to the DGES's view that capacity withholding was a particularly powerful form of manipulation under the Pool, Powergen said that any incentive for a portfolio generator to withhold plant was substantially reduced by its contractual commitments. For example, if a generator had fully contracted its expected capacity for the summer, any shortfalls in output would have to be externally purchased to limit its exposure to high capacity payments. This was becoming an increasingly important factor as plant portfolios were becoming smaller. Therefore, Powergen believed that fragmentation of the generation market had reduced the incentive for generators to withhold capacity, even under Pool-based arrangements. However, where concerns remained, there was scope to incorporate a licence condition on the lines of that already in the licences of Powergen and National Power—Condition 9A—which

¹Powergen said that this was the definition used in the Monopolies and Mergers Commission report *PowerGen plc and Midlands Electricity plc: a report on the proposed merger*, April 1996 (HMSO, Cm 3231), and it reflected the approach previously adopted by the DGES.

required the generator to provide detailed forecasts of capacity to Ofgem in advance, with annual reconciliation of out-turns with forecasts and an explanation of material differences. The wider use of this condition would be more appropriate than the introduction of the MALC.

Distinction between abuse and legitimate commercial behaviour

12.70. Powergen referred to Article 82 of the EC Treaty, now to be applied under the Competition Act, and said that it was feasible to distinguish between an abuse of market power and legitimate commercial behaviour. However, the DGES had made no effort to make this distinction. He had instead relied on an assertion that prices had been manipulated and market power abused on the sole grounds that prices were rising. But he had not provided an objective benchmark of what would be considered acceptable, non-abusive prices. Powergen referred to the OFT guidelines on the Competition Act concerning the circumstances in which price levels might be considered to be an abuse of market power and contrasted these with the DGES's interpretation. The guidance that the DGES had offered in order to assist generators in understanding how he distinguished between abuse of market power and acceptable behaviour had been one of the factors that had caused Powergen to reverse its earlier rejection of the MALC; it considered it to be, potentially, an important protection in the light of considerable uncertainty in this area, although it understood the concerns that had been expressed by others as to the inequality of information to which it gave rise and itself balked at the micro-management of generators' behaviour implied by it.

12.71. Powergen considered the hypothetical situation put forward by the CC of a generator which had decided to withdraw capacity (for example, for maintenance) but which knew that this action was likely to affect Pool prices. The generator might then enter into contracts or trades with other parties without disclosing its intention to withdraw capacity. Powergen agreed with the broad thrust taken by the FSA in this regard. The FSA had considered it reasonable for a generator to protect its own commercial interest by hedging any uncovered positions and protecting itself against additional risks arising out of the news of the reduction. It was less clear whether the generator might reasonably over-hedge, so as to profit at the expense of other users in the market. The FSA had noted the difficulty in drawing a clear demarcation between what it described as extracting value from a legitimately gained competitive advantage and disadvantaging the market as a whole.

Relevance of profitability to the identification of abuse

12.72. Powergen supported the view in the OFT guidelines on the Competition Act that profits which significantly and persistently exceeded a generator's cost of capital would be necessary before an abuse could be established.

The general level of prices

12.73. On the question of whether market abuse by generators had caused the general level of prices to be significantly higher than they would have been in a fully competitive market, Powergen said that Ofgem had not established, on an objective basis, that there had been market abuse. It had identified price rises, but it had not established a case that these had been excessive. Nor had Ofgem revealed what it believed the general level of prices would or should have been in a fully competitive market. On the contrary, it had said that it was not a central planning authority and that it did not seek to perform this function.

Distortion of the market

12.74. Powergen said that, whilst regulatory inquiries into the operation of the Pool had confirmed the existence of a classic dominance problem, an abuse of market power, or of dominance, had not been established. The existence of market power and regulatory interventions that this had produced had resulted in some artificiality about the level of Pool prices, and it was likely that, as a result, the development of trading and contract markets had been curtailed.

12.75. Powergen believed, however, that the biggest single hindrance to market development had been government protection of the UK deep-mined coal industry. The Vesting contracts had required both Powergen and National Power to purchase more UK coal than they could economically justify, given the level of generation expected. The contracts put in place at Vesting, and the five-year government-brokered contracts that followed, meant that for a period of eight years the liquidity of the contracts market had been significantly reduced. They had also had the effect of largely eliminating the scope for coal-fired generators to achieve competitive advantage through fuel purchasing.

12.76. Powergen added that there had been a number of other distortions arising from arrangements put in place at Vesting which might have hindered market development. It gave as an example the monopoly franchise enjoyed by the RECs in supply to domestic and small business customers until 1998. This, it said, had played an important facilitating role both in the coal-backed contracts and in the deals under which a REC would take an equity stake in an IPP, while entering into a long-term offtake contract with it. As a result of the offtake contracts with IPPs, part of the market had been effectively foreclosed to other generators for up to 15 years.

Expectations under NETA

12.77. Powergen said that the CC faced much more uncertainty than usual in this inquiry in assessing the effect that NETA would have on the issues identified. The situation arose in part because NETA would not come into effect until after the CC had reported, and in part because an entirely new set of wholesale trading arrangements, and a consequent withdrawal from the existing ones, would be introduced.

12.78. Powergen referred to the provision in the MALC for the condition to cease to have effect on the first anniversary of the introduction of NETA unless the DGES referred the matter to the CC in the meantime. Powergen said that the DGES had proposed to put forward the MALC to the Secretary of State as a standard condition for both generators and suppliers under NETA and, by implication, to discard the ‘sunset clause’. Powergen believed that this approach was wrong. The DGES was in a position to refer licence-holders to the CC if they did not accept a proposed licence modification. A licence-holder did not have similar rights: it might ask the DGES for a licence amendment but if he did not agree there was little that the licence-holder could do about it. A ‘sunset clause’ was, therefore, an extremely important protection for the licence-holder and should be retained.

The scope for market abuse: comparisons with the Pool

12.79. Powergen supported the view of Ofgem and the DTI that NETA would make it difficult for market participants to abuse a position of market power. It had come to this conclusion for a number of reasons. First, the Balancing Mechanism was expected to have less influence over other electricity prices than the Pool. Secondly, the mechanism used to derive imbalance cash-out prices was less prone to manipulation than the SMP calculation. Thirdly, the introduction of the demand side of the market would provide a counterweight to generators’ ability to charge excessive prices at times of capacity shortage. Finally, the proposal to incentivize NGC to minimize energy balancing costs while maintaining the existing security standard was likely to ensure that the supply/demand margin would remain high.

12.80. There was currently no alternative to the Pool for market participants to trade out short-term risk; the Pool price was, therefore, the default market price against which all contract negotiations were based. It had proved very influential over the price of bulk contract trades, and any manipulation of the Pool price was therefore significant. Under NETA, the anticipated emergence of a variety of short-term bilateral markets would open up scope for trading and managing short-term risk. Powergen said that, as a result, the default market price on which contract negotiations would be based would be more complicated than under current arrangements. It was likely to be dominated by the price achievable in short-term bilateral markets and not by the price emerging from the rule-based mechanism of the Balancing Mechanism and imbalance cash-out price. Manipulation of the latter was unlikely to be significant, therefore, in terms of overall electricity prices.

12.81. Powergen said that the Pool price had two principal components—energy price and capacity price. The latter was based on a complex formula, the outcome of which was very sensitive to the input parameters, and provided scope for market participants to have a major impact on price through

relatively minor change to their offered availability. Energy price, on the other hand, was created through a two-stage process. First there was a complex mathematical optimization programme which sought to schedule plant on to the system by minimizing total costs based on generator offer prices. The second stage took this schedule and performed a calculation on the highest-priced genset scheduled on the system to create the SMP. All generators received this price for their output. The SMP was not minimized. And generators could, in principle, offer price structures that created SMPs that were higher than those that would have arisen in an efficient auction.

12.82. Powergen said that since there would be no capacity payment administered under NETA, the risk of market abuse in this specific area would disappear. The mechanistic energy price would be the imbalance cash-out price; this, in turn, would be the weighted average of accepted bids and offers in the Balancing Mechanism. It followed that no single bid or offer would determine the price as currently happened under the Pool arrangements. In addition, since NGC would be purchasing in the Balancing Mechanism with a view to minimizing balancing costs, the risk that an inefficient price would be created would be avoided.

12.83. Powergen commented on a report¹ to the effect that experimental tests of market design had shown that traders would be able, profitably, to manipulate the Balancing Mechanism price-setting rules. The report cited instances of writing specious contracts in the forward market and submitting specious quantities and prices to the Balancing Mechanism. It was suggested that the fictitious trader had made substantial millions of fictional pounds. However, the fact that there would be many providers of flexibility services on both the supply and demand sides and the competitive forces arising ought to prevent abuse of this nature. In addition, the FSM Act had appropriate powers to regulate such behaviour. In practice, the ability to manipulate the Balancing Mechanism through the submission of false bids would be limited because the auction would operate only from 3.5 hours ahead of real time; generators and suppliers would have limited scope for moving away from existing positions (and NGC should be able to identify, and was also expected to be empowered to ignore, spurious quantities submitted to the Balancing Mechanism).

12.84. Powergen said that, occasionally, the system operator would have to purchase output from a generator at a particular location or with particular characteristics, creating de facto geographic or dynamic monopolies, no matter the nature of the trading arrangements. Powergen had tight internal controls in place to avoid the abuse of such situations. There were costs involved in balancing the system and since 1994 incentives had been introduced and refined which had encouraged NGC to secure a reduction in these and other costs. Under NETA, NGC would be incentivized to minimize balancing costs and would enjoy total flexibility to contract with market participants in response to this incentive. Powergen thought that NGC would seek to enter into contracts to minimize potential balancing costs and that it would be particularly keen to identify occasions when de facto monopolies might arise. NGC would have more knowledge about such monopolies than market participants and would therefore be in a strong position when negotiating contracts.

12.85. Powergen said that the price characteristics of supply and demand were particularly important for capital-intensive industries. It had been suggested, however, that the demand for electricity was inherently inelastic and that this enabled generators to raise prices beyond efficient levels at times of capacity shortage. NETA had been designed to maximize the potential for the demand side to participate in the market. Apart from the emphasis on bilateral trading, there had been much focus on ensuring that demand would be able to compete with generation to provide balancing services. In this way, there should be a counterbalance to the inelastic demand for electricity, and a minimizing of the risk that customers would be forced to consume at inefficient price levels. In addition, a further incentive for NGC to contract with market participants to preserve existing security standards had been proposed. These standards had ensured that the market had never become undersupplied in the years since privatization. It was probable therefore that, if NGC did so contract, prices would as a result be less volatile than might be expected in an efficient commodity market.

12.86. NETA contained a number of design features specifically intended to minimize the risk of market abuse. These included pay-as-bid pricing, ex-ante contract notification, separation of production and consumption accounts within vertically integrated groups, and a variety of new powers for NGC. Powergen believed that these features would make it difficult for a market participant to abuse its position. It was not necessary, therefore, to seek additional rules to address market abuse; some of these

¹'Mis-designing the Electricity Market', D Harbord and C McCoy, *European Commission Law Review*, Issue 5, 2000.

measures might, in fact, prove counterproductive. Powergen was particularly concerned that NGC would be given a free hand to contract with market participants and trade in the energy markets. NGC had significant market power and an information advantage over participants and there was a real risk that a rule designed to curb participant market power would, in fact, have the effect of increasing the risk of market abuse by NGC.

Compliance procedure

12.87. Powergen provided us with documents setting out its competition law and regulatory compliance policy and supporting programmes. It said that the programmes controlled different aspects of its commercial behaviour. One particular compliance programme, for Powergen's Energy Trading–Operations department, laid down (among other things) the following requirements for bidding behaviour:

- (a) Bid price structures would not be used (either on their own or in combination with technical parameters or availability declarations) which might create anomalous Pool prices, unless specifically agreed in advance by the corporate regulatory department.
- (b) Generating units that were constrained on would be offered with bid prices that were not higher than necessary to recover their costs (including a reasonable rate of return) and that were not reasonably likely to set SMP. Generating units that were constrained down or off would be offered with bid prices that were not lower than would be necessary to permit recovery of their costs (including a reasonable rate of return).
- (c) Inflexibility markers could be used to secure Powergen's competitive position where competitors were using inflexibility markers for commercial reasons. Powergen's use of commercial inflexibility markers would be reactive and kept to a minimum.

12.88. The compliance programme had been created to demonstrate how the group competition law and regulatory compliance policy would be operated within the particular business. All Powergen's Energy Trading–Operations staff were required to read and comply with the policy and programme and certify annually that they had done so. Breaches of the programme or policy would be treated as serious disciplinary offences.

12.89. The programme detailed specific rules arising from Powergen's licence and other sources and provided advice on the main areas of competition and regulatory risk for Energy Trading–Operations. These included contact with competitors and bidding plans and behaviour. A parallel programme for Powergen's commercial operations production staff identified the main risks as including contact with competitors, bidding behaviour into the Pool, availability forecasts, ancillary services and gas/electricity arbitrage. The programmes provided for an escalation procedure in the event of a dispute on the scope or application of any aspect of the programme. They also required the maintenance and retention of compliance documentation and the reporting of breaches and other compliance issues.

TXU Europe Group plc

12.90. TXU Europe Group plc is a subsidiary company of TXU Corp (formerly the Texas Utilities Company) which acquired The Energy Group plc, owner of Eastern Electricity plc, in 1998.

12.91. TXU said that it had worked openly and constructively with Ofgem during the drafting of the MALC to ensure that it could be applied in a fair and measured way. It judged that the condition could be applied in this manner and had accepted the condition in its licence. Its main focus during the consultation process had been to improve clarity and fairness regarding the appeals procedure, disapplication arrangements and the use and interpretation of the condition alongside the Competition Act.

12.92. In TXU's view, it was of crucial importance to market participants and customers that the regulator was scrupulously fair and measured in his application of the powers and processes associated with the condition. Further, he must be rigorous in demonstrating his intentions not to depart from the guidelines issued by him. He should take care not to intervene in or delay the proper decision-making

processes which were rightfully matters for the licence-holders. He should also resist any temptation to second-guess after the event, with the wisdom of perfect hindsight, decisions properly made by licence-holders and taken in good faith. Market distortions might occur if some market participants, especially those without generation licences, took market positions based on assumptions that, when tough and proper commercial decisions had been taken by generators, the regulator might intervene or introduce delay during investigation.

12.93. TXU placed significance on the availability of meaningful disapplication arrangements once NETA came into effect. It did not believe that the case had been made for the MALC to be retained once NETA had been implemented. Success for NETA would mean the development of a market that operated competitively without undue regulatory risk and intervention. The Competition Act, Competition Act guidelines, the FSA and its guidelines, NETA licence conditions, NETA implementation obligations and the NETA reserve powers available to the Secretary of State under the Utilities Act all provided a strong weave of significant obligations on generators together with wide-ranging powers to regulatory bodies. These obligations should render the MALC unnecessary after the first year of NETA in accordance with the disapplication provision which TXU had accepted. To continue with the MALC beyond that time might not give NETA a fair chance to operate properly, and might lead to long-running problems of interpretation alongside provisions of the Competition Act. Furthermore, the NETA arrangements were designed to provide incentives to contract forward and to provide accurate forecasts. TXU believed that the NETA governance arrangements allowed for necessary rule changes to be introduced in a speedier way than under the Pool. Under NETA, demand-side inputs in the Balancing Mechanism had the prospect of providing a more effective response to energy prices. There was likely to be a significant tranche of active demand-side bidding that might initially be small but would be sufficient to counteract any economically suboptimal withdrawal of capacity by generators.

12.94. TXU did not believe that the development of contract and trading markets was inhibited by concerns about generators as counter-parties. It was not aware that buyers were prepared to pay excessive premiums for forward contracts because of perceptions that price manipulation might occur. It believed that temporary reductions in traded volumes were due to market participants assimilating the effects of changes to market structure and market roles, caution in the market about the prospective working arrangements under NETA and uncertainties over the date when NETA would come into effect. In TXU's view the power exchanges would have a substantial beneficial effect on contract market liquidity.

12.95. TXU did not expect the AES or British Energy licence-holders to manipulate the market or abuse a position of market power irrespective of the inclusion of the MALC in their licences. It did expect, however, that if the MALC were not added to the licences of AES and British Energy, the DGES would remove the MALC from TXU's licences. With regard to optimizing the impact of the MALC, TXU said that whilst the wisdom and impartiality of the Advisory Body were important parts of the later stages of the proposed process, damage to a licence-holder's reputation and its relations with market participants and investors might occur earlier in the process.

12.96. In investigating possible breaches of the MALC the DGES should strive to establish the following:

- (a) full collaborative exchange of concerns (including complaints received), relevant data and views;
- (b) a programme of urgent joint analysis and research, agreed by the regulator and the licence-holder, to assist the DGES in formulating a decision to move to full investigation;
- (c) a clear timetable for the preliminary investigation agreed and subsequently observed; and
- (d) a meeting to be held at the end of the preliminary investigation to ensure that any transition to full investigation was jointly understood and communicated in a fair way.

12.97. In TXU's view it would not be appropriate for the DGES to assume a role of provocative prosecutor which would make it difficult to demonstrate scrupulous fairness. Further, it would be vital that the DGES did not feel that the existence of a well-intended but non-legally-binding appeal mechanism to the Advisory Body allowed him to overstep the bounds of fairness. The DGES should take steps to guard against any tendency to prejudge, even when he might be under pressure to be seen to be acting swiftly to protect customers' interests.

12.98. As regards the distinction between abuse and legitimate commercial behaviour, TXU said that legitimate bidding strategies which sought to optimize recovery of fixed and variable costs across the year, together with a margin which the risks justified, could lead to bid prices which differed from one period to the next. As trading conditions varied, plant might or might not be able to earn revenues in one period and might need to aim for higher revenues through higher prices in a subsequent period. However, seemingly like-for-like comparisons across similar (but short) time periods could be misleading and easily misinterpreted. Periods of comparison which were not based on full-year data were unlikely to be meaningful enough to support robust conclusions, particularly in respect of any allegation as serious as abuse of market power. Similarly, a sound portfolio bidding strategy aimed at achieving a sensible balance of reward and risk of non-recovery of costs was legitimate. TXU believed that varying prices within the portfolio did not indicate market power.

Scottish companies

Scottish Power plc

12.99. Scottish Power plc (Scottish Power) is a leading multi-utility business serving approximately 7 million homes and businesses across the UK and north-west USA. Its electricity activities in the UK cover generation, transmission, distribution and supply, principally in southern Scotland and, through its Manweb subsidiary, Merseyside and North Wales. It trades in the electricity wholesale market in England and Wales primarily via the Anglo-Scottish interconnector which has been upgraded for this purpose.

12.100. Scottish Power said that it supported the principles of increased competition in the generation and supply of electricity and a reduction in the opportunities for abuse of substantial market power by any party active in the market. It believed that the successful implementation of NETA together with the provisions of the Competition Act would achieve this aim. Although the MALC was intended to ensure competitiveness, it was likely to have the opposite effect. It could, in fact, be detrimental to the establishment of long-term competition by discouraging new entrants and stifling innovative initiatives from existing participants.

Market definition

12.101. Scottish Power said that it was difficult to forecast Balancing Mechanism prices prior to the start of a new market. In all probability, prices would drive the contracts market to some extent. The volume of physical power being bought and sold through this market would be far larger than that being processed through the Balancing Mechanism. The contracts market would be considered, therefore, to be the key pricing market.

Market power and abuse

12.102. Scottish Power considered the relationship between price-setting, manipulation in the Pool and the abuse of market power. It said that price-setting competition had increased significantly following the divestment of price-setting plant by National Power and Powergen and other changes to the market. The nature of the Pool restricted price-setting power to plant with particular characteristics and this had offered opportunities for some generators to exploit their position and manipulate Pool prices. Price-setting plant was now spread over more players, with the result that the ability of any one generator to move prices had been significantly reduced. As regards distinguishing between legitimate commercial behaviour and behaviour which might constitute an abuse of market power, Scottish Power said that it would appear legitimate for a generator to bid different prices at different periods when market demand and cost conditions were similar. It found it extremely difficult, however, in comparing prices between different periods, to determine whether prices were too high or too low at a specific time. Nor was it possible to define a particular period over which a generator could be deemed to have abused a position of market power. Scottish Power added that the ability of a particular generator to move prices would be significantly reduced under NETA in comparison with the Pool arrangements. However, in circumstances where a generator operated flexible plant such as pumped-storage generation, it might be able to move prices without having a significant share of the generation market.

12.103. Scottish Power said that it would be appropriate to take into account fuel, operating and other financing costs, together with replacement costs for equivalent plant, when considering any relationship between prices and costs in market abuse situations. However, each situation would not be identically comparable and it would be necessary to consider the unique circumstances of each generator and plant when reaching conclusions. It could not satisfactorily be demonstrated that market abuse by generators had caused the general level of prices to significantly be higher than they would have been in a fully competitive market. Nor was it clear that market abuse had limited the development of the trading market. On the contrary, it might be easier to argue that the Pool arrangements had been more of a hindrance and that NETA had the potential to resolve this issue.

Market abuse under NETA

12.104. In Scottish Power's view the scope for generators to exercise market power outside the Balancing Mechanism appeared very limited. It said that NETA should provide some guarantee that generators would enter into bilateral trades to a far greater degree than at present, and should force many generating companies into a trading position that would ensure liquidity in the trading market. It suggested that if Balancing Mechanism prices were to be penal, suppliers would have to be more active in balancing their own positions. All of this, in turn, would encourage a more liquid and transparent market less susceptible to manipulation. Demand-side activity would be related to incentive pricing in the Balancing Mechanism; however, since this could only be determined after the implementation of the new market, it was not possible to quantify in advance the extent of an increase in demand-side response. Scottish Power commented on the possibility that, whilst active trading in the Balancing Mechanism was expected to be limited, significant imbalances could occur for suppliers which had made poor forecasts of demand. It considered that, since the cash-out price was being calculated on a weighted average basis, there might be an opportunity for manipulation if volumes traded were very limited.

Other constraints on abuse of market power

12.105. Scottish Power said that changes in plant ownership had significantly reduced the ability of any particular generator to manipulate prices. It considered that the Competition Act, the FSM Act and Article 82 of the EC Treaty would all provide an effective deterrent against abuse of market power. It believed that licence conditions should not be introduced which defined substantial market power for the wholesale electricity market on a different basis to that determined by case law arising from the existing legislation. This would introduce inconsistencies between the different regimes.

AES and British Energy

12.106. Scottish Power said that the scope for market abuse under the current Pool arrangements was limited because British Energy was not a price-setting generator and AES had limited market power. The scope under NETA would also be limited since neither would have substantial market power.

Scottish and Southern Energy plc

12.107. Scottish and Southern was formed by the merging of Scottish Hydro-Electric and Southern Electric. It has substantial interests in the British electricity industry covering electricity distribution and transmission, energy supply and generation.

12.108. Commenting on whether market power had inhibited the development of contract and trading markets, Scottish & Southern said that trading in forward markets was stimulated by uncertainty. In the electricity market, the stimulus was the volatility of Pool prices. Abuse of market power could either reduce or increase volatility and hence affect incentives to contract ahead. Scottish & Southern believed that, under normal circumstances, if suppliers had thought that generators might withhold capacity, for example, in order to drive prices up or increase volatility, these suppliers would become more uncertain and would be encouraged to contract ahead. It saw no reason why parties would be particularly wary of contracting with specific generators; once a contract price had been agreed, the movement in Pool price would be irrelevant. It commented that the Pool was not really the market in electricity, as between 90 and 95 per cent of electricity was traded via contracts.

12.109. Commenting on whether the perception that price manipulation would occur had led to excessive premiums for forward contracts, Scottish & Southern said that some buyers would be more inclined to purchase forward contracts if they believed that spot prices would or could be volatile. Whether or not contracts were traded at a premium could not be determined until after the event and depended on the interaction between buyers in both the contract market and the Pool. Market power, if available, could be used to raise both spot and contract prices.

12.110. Scottish & Southern said that recent divestment of generating plant would significantly reduce the ability of individual generators to influence the market. Since NETA had been specifically designed to encourage parties to contract ahead, it was believed that the liquidity of the contract market would not continue to be a problem. It had always been the intention that cash-out prices under NETA would be extremely penal/volatile, in order to force parties to contract ahead and minimize their imbalance position. However, NETA itself would not solve the problem of market power. The potential for abuse of market power would perhaps be reduced, for example, through the use of pay-as-bid rather than marginal pricing, but the trading rules would not, and should not, tackle market power. The same plant would set peak prices under NETA as it did under the Pool, but this plant was now owned by more participants, so the potential for abuse should be less. Nevertheless, Scottish & Southern thought that some areas of the NETA rules would continue to favour specific types of generators: portfolio generators, for example, would be able to benefit from rebidding in the Balancing Mechanism.

12.111. As to whether the MALC would help or inhibit the development of the contract and trading markets, Scottish & Southern said that it would increase uncertainty about what constituted acceptable behaviour. If generators were forced to be over-cautious, prices would be more likely to be stable, which in turn would reduce risk for other market participants and thus reduce the incentive to contract ahead. This was the opposite of what the DGEN had been trying to achieve under NETA and under these conflicting circumstances it was difficult to assess what the effect of the MALC would be.

12.112. Scottish & Southern said that another factor which might artificially constrain the behaviour of the affected generators was that the MALC did not seem to recognize supply as a legitimate economic factor in determining generation prices. Paragraph 2(c) of the MALC indicated that it would be considered an abuse if a licence-holder's prices differed unduly between times when the market demand and cost conditions were otherwise similar. This suggested that, if demand and costs were constant, a generator could not change its price for electricity, even if the supply conditions (generators' availability) had changed significantly. This was contrary to normal supply/demand economics. Scottish & Southern said that preventing participants in a competitive market from reacting to normal market pressures would inevitably distort competition.

12.113. Scottish & Southern said that it was difficult to see why the inclusion (or not) of the MALC in either AES's or British Energy's licences would have any immediate effect. Given the uncertainty in the market with the approach to NETA, it was difficult to draw conclusions about the effects on contract prices.

Suppliers

Centrica plc

12.114. Centrica plc (Centrica) was formed in 1997 from the demerger of British Gas plc. It said that its subsidiary, British Gas Trading Limited, supplied electricity to about 3 million domestic customers. Accord Energy Limited, another subsidiary, traded in the EFA market.

12.115. Through its subsidiaries Centrica had been and remained a leading proponent of Pool reform. It fully supported the decision to replace the Pool with NETA. It had also supported the programme pursued by the DTI and Ofgem to secure the divestment of generation assets of the major generators so as to dilute market power.

12.116. Centrica said that the past practices of generators identified in the DGEN's initial submission as potential abuses of substantial market power were symptomatic of the concerns that had led to the NETA proposals and the divestment of generation assets. It agreed with the DGEN that these measures would not in themselves be enough to eradicate entirely the prospect of abuse of close-to-real-time market power.

12.117. In Centrica's view, the juridical concept of dominance, as found in the abuse of dominance provisions of the Competition Act, would be capable of extension to include the kind of short-term dominance that was of concern to the DGES. However, as there was not yet a precedent for such an extension, Centrica believed that there was a case for the introduction of a MALC of the type favoured by the DGES at least until the law could be extended in that respect.

12.118. Centrica said that one of the barriers to the development of contract and trading markets was that in the Pool physical electricity was traded only on a day-ahead basis. There was considerable evidence that Pool prices had been dislocated from supply/demand fundamentals because of manipulation by generators. Consequently, forward Pool price risk could not be assessed with confidence. In Centrica's view the result had been that undertakings exposed to Pool price risk as physical participants, and thus motivated to take hedging positions, were not confident to trade in and out of those positions, whilst undertakings with hedging expertise which were not exposed to Pool price risk as physical participants were not confident to enter the contract and trading markets at all.

12.119. Centrica said that excessive Pool prices had resulted in buyers paying excessive premiums for forward contracts. The problems associated with contract and trading markets had been reduced but not resolved by recent structural changes. The Pool rules allowed a generator with even a relatively small proportion of overall generation capacity to influence price. Centrica believed that NETA would reduce the ability of generators to manipulate price as the imbalance settlement rules would motivate them to sell most of their product in the forward market where prices would be determined through normal commercial interactions. In Centrica's view, the balancing market would be less open to manipulation than the Pool, although the potential would remain. Manipulation of the Balancing Mechanism might also spill over into the short-term, OTC and exchange markets.

12.120. Over time the MALC would, in Centrica's view, increase the confidence of participants and potential participants in contract and trading markets that prices properly reflected supply and demand fundamentals. It did not believe that the MALC would create abnormal uncertainty or inhibit the development of electricity markets. It said that some of the central tenets of competition law were couched in general terms and there was some uncertainty about their application, but there was no evidence that this had inhibited trade.

12.121. Centrica had no evidence to suggest that AES and/or British Energy either would or would not manipulate markets or abuse a position of market power if the MALC were not included in their licences. However, given the history of price manipulation in the Pool, especially recently, it was not easy to predict who might engage in price manipulation. Furthermore, manipulation set the Pool price for all electricity delivered in the relevant settlement periods; all sellers benefited and the direct financial detriment to buyers could be considerable. There could also be indirect consequences for the contract and trading markets. For these reasons, Centrica did not believe that the MALC amounted to an unreasonable burden on a licence-holder that did not intend to abuse positions of substantial market power. On balance, the public interest would be served by including the MALC in the licences of all generators which had a position of substantial market power. Centrica supported the DGES's approach and did not believe that the changes in structure that would result from NETA would be sufficient to tip the balance against the MALC. Being active in the EFA market, Centrica firmly believed that a finding against inclusion of the MALC would facilitate the scope for price manipulation and result in a rise in forward prices.

Remedies

12.122. Centrica discussed what it saw as the principal differences between the MALC and our alternative proposal (see Appendix 2.1, Annex B). It noted that the latter would terminate once NETA was implemented and argued that there was a need for the continuation of an appropriate licence condition to deal with abuse under the new arrangements. The potential for abusive conduct by generators would continue beyond the implementation of NETA. That being so, consideration ought to be given to factors common to licence conditions which operated both before and after the new arrangements had begun. New rules would come into force with the new arrangements, but the generator's product, the production process and demand-side requirements would remain the same. It followed that some aspects of conduct would continue to be unacceptable. Against this background it was possible and desirable to draft a licence condition that might be applied continuously and consistently both before and after the implementation of NETA.

12.123. Centrica said that, since the inception of the Pool, there had been ample evidence of conduct by generators that had resulted in excessive wholesale prices for electricity. Prices had been significantly higher than the prevailing supply, demand and cost conditions would suggest. Subsequent amendments to the rules, intended to ensure no recurrence of specific types of conduct, had significantly failed in that respect. New patterns of conduct had emerged, and excessive prices had once more resulted. Centrica suggested that the emergence of new patterns had been made possible primarily by the complexity of the rules; that very complexity had made it impossible to isolate all forms of conduct with the potential to deliver excessive prices. This was the basis of the problem and a starting point for proponents of the MALC. Centrica considered that the MALC sought to provide a resolution to the problem by prohibiting, through overarching language, all unacceptable conduct that delivered excessive wholesale electricity prices. It was uncertain if the CC's proposals shared this objective. Centrica was of the view, however, that a licence condition that failed to capture all categories of unacceptable conduct would leave the problem unresolved.

12.124. Centrica weighed up the respective merits and defects of the MALC and the CC's proposed condition. The MALC's definition of abuse had a broad base and a relatively succinct interpretation of what might constitute a position of substantial market power. Whilst such an interpretation of unacceptable conduct was not unusual, any resulting uncertainty was tolerable since the definition was sufficiently clear. The CC's proposal, however, was deficient in a number of respects. In particular, by defining unacceptable conduct by reference to past instances, it risked repeating historical mistakes. Loopholes would emerge: first, the complexity of the Pool rules would offer wide-ranging opportunities to achieve outcomes that would lead to excessive prices; and secondly, the CC's approach posed problems of drafting and interpretation. In particular the general descriptions employed would be open to challenge and there was a risk of their scope being whittled down. This was less of an issue with the MALC because of its more general approach and use of well-tried concepts.

12.125. With regard to the effect on prices, Centrica said that under the Pool rules the invariable complaint was that generators' conduct had led to excessive prices. It appeared that, in recognition of this, the CC's proposed licence condition provided that conduct would be regarded as having an adverse effect only if it created, and would reasonably be expected to have created, prices significantly higher than would reflect prevailing supply, demand and cost conditions. It was not impossible that some generators, with a view to enhancing their market power, could act so as to depress wholesale prices for a time. Centrica considered, however, that prior to the demise of the Pool such behaviour was unlikely given past practice. On that basis, the approach of the CC's condition seemed reasonable. So did that of the MALC which, being intended to operate beyond as well as prior to NETA implementation, defined a position of substantial market power to allow for decreases as well as increases in prices.

12.126. Centrica concluded that it preferred the MALC for two reasons. First, given that prices post-NETA would be affected by how generators behaved both before and after NETA implementation, the MALC would address the transition period in a consistent manner. Secondly, the MALC better encompassed the range of conduct that had to be included within the scope of a licence condition if it was to be fully effective.

Electricity Direct

12.127. Electricity Direct is an independent electricity supplier focused on the small and medium business market. It started trading in the 10 kWh market in April 1999 and the non-half-hourly metered market in August 1999. Since then it had built a customer base of around 35,000 customers with annualized turnover in excess of £100 million.

12.128. Electricity Direct said that if the DGES were genuinely concerned that generators might abuse the new market mechanisms then he should consider either not implementing NETA or requiring further divestment of plant. Previous divestment by companies considered by the DGES to have been abusing a dominant position had had an immediate and beneficent effect on bulk market prices. Electricity Direct believed that the most effective action the DGES could take in future would be to remove the restriction on new power plant construction before the introduction of NETA. The integration of the Scottish market into the England and Wales market would also stimulate competition. In the case of British Energy, Electricity Direct said that the value of the MALC would be limited during the remaining life of the Pool because it was essentially a price-taker. Although British Energy's ability to control prices in the Pool had been very limited, this might not, however, be the case with NETA, where

it would have sufficient control to withdraw capacity and hence tighten the imbalance market in the last few hours before dispatch.

12.129. Electricity Direct commented that under NETA generators would have more opportunities for gaming in the spot markets close to real time. Small suppliers, however, would be at a distinct disadvantage because they would need to forecast demand accurately in the short term. Electricity Direct said that the DGES's decision to introduce the MALC for the first year of NETA's operation suggested that he did not know what effect NETA would have. If that was the case, NETA should be stopped since a year's trading in an ineffective market could easily put smaller players out of business.

London Electricity plc

12.130. London Electricity plc (London Electricity) is a public electricity supplier. Its customers are mainly in London and the South-West of England but also throughout Great Britain. The London Electricity group owns Sutton Bridge power station and has a minority interest in Barking power station. It told us that it might expand its interests in generation in the future.

12.131. London Electricity said that ever since the events that had prompted the DGES's proposal for a MALC further divestment of generation plant had reduced the concentration of ownership, in particular of price-setting plant. Furthermore, the forthcoming liberalization of the consents policy for new power stations could be expected to lead to highly competitive new entry in the near future. London Electricity also expected that the introduction of NETA would break the link between Pool prices and forward contract prices, thus further diluting the ability of individual generators to abuse their market position.

12.132. Although London Electricity had reluctantly accepted the MALC as a modification to Sutton Bridge Power's generation licence, it was concerned about the potential for over-regulation in what was now a competitive market. As well as the potential for intervention under the MALC, the Competition Act was in force and the new forward markets under NETA were expected to come under FSA regulation. Taking these points into account, and in particular the DGES's powers under the Competition Act, London Electricity did not believe that the absence of a MALC from generators' licences would operate against the public interest.

12.133. On the question of market definition, London Electricity believed that a complex approach was best avoided. It said that all capacity could influence the market price, whether under the Pool or NETA. Given the non-storability of electricity, the period for market definition might be less than a year but it should not be as short as every half-hour period. It would be considered reasonable to distinguish between summer and winter.

12.134. London Electricity said that there had been many examples of market abuse throughout the existence of the Pool. Contract markets had been affected as well as Pool prices. It also noted that any change in Pool rules in response to abusive behaviour had been time-consuming and difficult, and that it had been difficult to define abuse without limiting the commercial flexibility of the participant.

12.135. In London Electricity's view, the extent to which the MALC would be appropriate under NETA depended on how clearly the line between acceptable commercial practice and market abuse could be drawn, the transparency of its operation and the legitimacy of the assessment process.

12.136. The test of market abuse was if a generator used substantial market power to bring about, or attempt to bring about, an increase in wholesale prices that was not otherwise reasonably sustainable. London Electricity did not believe that company profitability was a valid indicator of market abuse. It said that it was legitimate commercial behaviour, in a competitive market, to gear bids at what the market would bear. In the generation market, it was difficult to see how a generator could otherwise expect to recover its investment and financing costs over its lifetime, since this depended on there being prices for significant periods of operation that exceeded short-run avoidable costs. This implied that at different times prices might differ even when cost and demand conditions were similar. With an uncompetitive market, this approach to pricing could be subject to abuse, but London Electricity believed that the existing generation market structure was now conducive to adequate levels of competition.

12.137. London Electricity did not consider that capacity withdrawal from the forward market by a generator that then offered it to the Balancing Mechanism would be proof of abusive behaviour. If the prices offered in the forward market were perceived by a generator to be too low, it should not be forced to participate in this market. It would be an entirely commercial matter if a generator then decided that it was worthwhile to offer its plant to the Balancing Mechanism. However, if one company were making a high proportion of the bids/offers available in the Balancing Mechanism, that would be evidence of market power.

12.138. In London Electricity's opinion, the industry and the DGES should focus on improving wholesale market structure and consequently the level of competition rather than on the micro-regulation demonstrated by the MALC.

12.139. Increasing the level of competition was crucial and there needed to be a level playing field for all generators. London Electricity feared that new entrants might be deterred by potentially onerous licence conditions such as the MALC. London Electricity was also concerned about the legitimacy of the MALC's assessment process. It noted that Ofgem would initiate the investigation, perform the analysis and decide whether the MALC had been breached. It thought that this concentration of authority in one body might not be healthy for the development of the industry, and that the process might be more objective if several bodies were involved.

Northern Electric plc

12.140. Northern Electric & Gas is a supplier of electricity and gas throughout the UK. The electricity licensee, Northern Electric plc (Northern Electric), and the gas licensee, Northern Electric & Gas Ltd, are subsidiaries of MidAmerican Energy Holdings Company (incorporated in Iowa, USA).

12.141. Northern Electric said that uncertainty over prices in the electricity market in the past had encouraged RECs to enter into CfDs in order to protect their relatively slim margins. It was likely that such cover would have been bought at higher price levels than would have been the case in a market that could not be manipulated by generators. Energy suppliers were unable to constrain the vast majority of their customers' consumption and could not elect not to take final delivery on the basis of adverse market price movements. Northern Electric believed that this made the customers vulnerable to the exercise of market power by generators.

12.142. Northern Electric said that divestment of plant had been necessary to improve market operation and confidence, but had not eradicated manipulation of the market. Several generators were potentially capable, through their portfolio of assets, of artificially influencing prices. Northern Electric therefore believed that the MALC was necessary.

12.143. Whilst Northern Electric believed that NETA should result in more competitive trading and greater transparency, it did not think that it would remove the threat of manipulation. The potential for generators to withhold capacity from the forward and balancing markets, causing the system operator to purchase electricity at potentially inflated prices, would remain. Although Ofgem had developed rules that underpinned the Balancing Mechanism, this was a complex process that would offer scope to exploit the rules and disadvantage suppliers. Northern Electric said that the MALC would act as an additional deterrent, create a more stable and transparent market and encourage innovative contract and trading developments. However, the mere existence of the MALC would not be enough to deter manipulation. The manner in which it was applied would be important.

12.144. Northern Electric did not believe that the MALC would create undue uncertainty. It commented that investigations would be carried out in line with a predetermined consultation process that included referral to an expert panel. It believed that suppliers would face greater risk and uncertainty without the MALC in place. It said that the MALC provided all generators with a clear indication that anti-competitive behaviour would not be tolerated. Without the MALC the market would be dependent on the sanctions in Chapter II of the Competition Act. In many cases these would not impact on generators which would not be dominant in normal Competition Act terms but which might still, in a particular set of trading circumstances, be able to manipulate the market price faced by suppliers.

12.145. In Northern Electric's view, generators subject to the MALC would be under greater restrictions and the potential for them to act in an anti-competitive manner would be reduced significantly by

the increased threat of regulatory sanction. It believed that the Edison investigation had illustrated the MALC's potential as an effective tool for tracking market practices.

Norweb Energi

12.146. Norweb Energi (Norweb) is a retail electricity supplier based in Manchester and was recently purchased by TXU. It said that it supplied electricity to the industrial, commercial and domestic markets.

12.147. Norweb had argued in the past that some generators had manipulated the wholesale market. After it had taken into account the market risks and uncertainties, Norweb entered into contracts with generators because to exclude them from its list of counter-parties would mean that there would be insufficient market liquidity to meet its requirements. It paid a premium for forward contracts in order to secure price certainty: because supply was a low-margin business, there was a limit to the level of forward price uncertainty that it was prepared to manage.

12.148. Norweb said that there had been a welcome reduction in prices over the previous two years and that structural changes in the generation sector had been among the contributory factors. In its view, opportunities for price manipulation would continue under NETA, particularly as reforms of the transmission market had been delayed for understandable practical reasons. This delay meant that opportunities to manipulate constraints remained. The MALC might help to mitigate this possibility. Norweb considered that the MALC could help the development of contract and trading markets by reducing the likelihood of manipulation or abuse. Conversely, it did not believe that the MALC would create uncertainty and inhibit the development of these markets. It had no view on whether AES and British Energy licence-holders would manipulate the market or abuse a position of market power if they were not subject to the MALC. However, any manipulation would be likely to be visible and this very transparency might be a disincentive.

SEEBOARD plc

12.149. SEEBOARD plc (Seeboard) is a national electricity and gas supplier, and the owner/operator of the electricity distribution network covering Kent, Sussex and large parts of Surrey and South London. The company is owned by American Electric Power based in Columbus, Ohio. Seeboard has around 2 million customers connected to its regional distribution network. It supplies electricity to over 1.5 million customers, mainly in the South-East, with an increasing proportion taking both electricity and gas supplies. Seeboard has an equity stake in and an offtake power contract with Medway, a CCGT plant situated in Kent and operated by AES Corporation.

12.150. Seeboard said that the generation market had suffered significant abuses and price manipulation. It fully supported the DGES's desire to address the problem and restore some credibility to the market. Abuse and manipulation had resulted in higher electricity prices than would have occurred in a freer and fairer market. Seeboard believed that the MALC had a crucial role in providing an orderly transition from the Pool to NETA. It was also convinced that the MALC would help to ensure that the market was free of anti-competitive behaviour, thus giving confidence to existing and potential participants.

12.151. Although Seeboard had no evidence to suggest that either AES or British Energy had explicitly manipulated prices, it commented that the potential was there, as they were the sixth and third largest generators respectively. It believed that both of them had sufficient market power to manipulate prices and both would be subject to similar commercial pressures and objectives as other portfolio generators which had manipulated prices in the past. It seemed logical to assume that if they were in a situation where they would benefit from manipulation then they would do so. Seeboard believed that it would be reasonable for all the major generators to be subject to the same licence conditions. Provided that the MALC was upheld in an unambiguous way and was applied consistently, it should have the potential to prevent AES and British Energy as well as other generators from acting against the public interest.

12.152. Seeboard said that vertically integrated businesses, unless tightly controlled, would operate and trade to manage their profit across the supply chain, whereas an independent non-vertically integrated company such as itself focused on the retail customer and made relatively thin profits. Conse-

quently, unwarranted and unexpected changes in energy costs had a material impact on it and its customers. Whilst there would be price volatility in competitive energy markets, and this was a risk that had to be managed, the manipulation of markets was damaging to its business. In its view, if abuse was not largely prevented or financial redress achieved, the viability of independent supply businesses would be in question. These businesses, which were vital to competition, could not tolerate a series of costly abuses that caused significant financial damage even if the abuse was subsequently stopped.

12.153. In Seeboard's opinion, there were many ways in which generators could and did manipulate prices to satisfy their own commercial objectives at the expense of suppliers and customers. Although Seeboard believed that it was possible to distinguish between market abuse and legitimate commercial behaviour, it suggested that it was necessary to investigate possible abuse in greater depth than had previously been the case in the industry, in order to understand fully the relationship between a generator's behaviour and the effect on its profits.

12.154. Seeboard agreed that past manipulation of the wholesale electricity market by generators had inhibited the development of contract and trading markets. Suppliers aware that generators controlled the price and volatility had little choice but to enter into contracts with them, but traders, who were essential to an efficient liquid market, were reluctant to enter a market where the price was controlled by one powerful group. Lack of liquidity in the forward contracts market and the knowledge that the seller determined the wholesale price meant that buyers had to pay an excessive premium.

12.155. The divestments of recent years had not, in Seeboard's opinion, eliminated the ability or willingness of some generators to manipulate prices either through bidding strategies or by artificially withdrawing plant in order to inflate capacity payments. Despite there having been three new price-setters, which had apparently increased competition at the margin, many players had set prices higher in May 2000 than in May 1999. This suggested that divestment had done little to increase genuine competition and drive down prices. Instead, prices were simply being managed between a greater number of players. Seeboard said that unless there were strong measures to curb market power it was likely that the same few portfolio generators which owned flexible plant and set SMP in the Pool would take advantage of their dominance in the close-to-real-time market under NETA.

12.156. In Seeboard's view, the MALC had the potential to enhance rather than inhibit the development of contract and trading markets. However, damaging uncertainty resulted from the way in which the condition was being interpreted and applied. The DGES needed to ensure that there was a clear and consistent understanding by all parties of his application of the rules. Seeboard agreed with concerns expressed by others over the bilateral discussions that Ofgem had made available to generators. The guiding principle should be that all parts of the process were fair, open and transparent and that wherever possible there should be symmetry of information. Bilateral discussions were not consistent with that guiding principle and advantaged one market participant over others by creating information asymmetry. Seeboard believed that such discussions were unnecessary because what constituted abuse had been clearly defined and a generator would know whether or not its behaviour was competitive. Where a generator sought clarification, the DGES should make public any comments and avoid explicitly endorsing or otherwise a particular action or behaviour.

Yorkshire Electricity

12.157. Yorkshire Electricity said that it was the largest independent purchaser of electricity under current Pool arrangements and, as such, required ready access to competitively priced electricity. Studies by Ofgem had shown insufficient competition in the generation market and a lack of demand-side involvement which had allowed generators to manipulate prices. A further shortcoming of the Pool was the complexity of its rules, which made it difficult to pinpoint abuses and had led to inefficient prices. Yorkshire Electricity supported the principle of the regulator managing the market power of generators.

12.158. In Yorkshire Electricity's view NETA would not, of itself, resolve matters for suppliers or their customers because generators operating flexible plant would continue to exert influence on prices in the balancing market. Although NETA would allow demand-side participation in the process, substantial market power would remain with those generating companies capable of adjusting output as required.

12.159. Yorkshire Electricity said that it had written to Ofgem in September 2000 to express concerns about the electricity market. Wholesale prices had recently increased significantly, and it

considered that volatility in purchase cost projections for the coming winter were reaching unacceptable levels. It blamed this on recent uncertainties about the implementation date for NETA rather than changes in the fundamentals of market operations. Yorkshire Electricity said that some generators had abused their market power, and it suggested that Ofgem should review current bidding strategies as well as the reasons for plant not being available. It had urged Ofgem, also, to ensure no delay in the implementation of NETA. Recent events had illustrated how delays would result in customers paying higher prices; delays would also have an adverse effect on smaller generators and non-integrated suppliers. The uncertainty would jeopardize the legal and commercial negotiations required to make the transition from Pool-based CfDs to the bilateral contracts appropriate for NETA. All this gave further grounds for Ofgem to investigate price changes that appeared to have been driven by generator self-interest.

12.160. Yorkshire Electricity had raised concerns with Ofgem about the current level of capacity payments, which it considered were unjustified. It had sought Ofgem's support for the proposal that the payments should be abolished and suggested that any attempts to frustrate such a change could amount to market abuse. It had raised, also, the issue of plant maintenance. Generators had recently undertaken an extended maintenance programme designed, it understood, to ensure that plant would operate reliably under NETA. Under the Pool generators had deferred maintenance until absolutely necessary, particularly as they could also benefit from the uplift costs arising from unexpected shutdowns. Yorkshire Electricity had recommended that Ofgem review generators' maintenance activities particularly for the period since NETA had been announced. It said that Ofgem should confirm that maintenance plans had been based on maximizing plant availability rather than on maximizing revenue through the peculiarities of the Pool. It told us of indications that generators were withholding capacity and seeking higher prices as a result of the impending transition to NETA.

12.161. In Yorkshire Electricity's view, the market for contracts had been inhibited primarily by the compulsory nature of the Pool and the potential for manipulation. It did not believe, however, that suppliers had been wary of contracting with generators per se. On the contrary, a fear of manipulation had resulted in a shortage of other independent parties; suppliers had little choice, therefore, but to contract with generators. Generators and suppliers faced different risks, but market power had given the former scope to manipulate Pool prices to a level higher than justified in a market operating under conditions of oversupply. An independent trader had to take account of Pool price movements. It followed that it was impossible to establish prices independent of those in effect manipulated by the generators. Yorkshire Electricity believed that it was for this reason that other potential operators had not entered the wholesale electricity market, and thus inhibited development of the contract and trading markets.

12.162. Yorkshire Electricity agreed that a perception of price manipulation meant that buyers would pay excessive premiums for forward contracts, thus increasing the price of electricity. Overcapacity had been engineered into the electricity supply system to ensure security of supply. This should have resulted in pressure on generators to secure the value of their output with forward prices close to or below physical delivery prices from the Pool in the same period. There had been interaction between the potential for manipulation, the asymmetry of potential prices and risks, the absence of a valuation mechanism independent of generators, and the fact that suppliers could not choose not to supply when prices were high. This had resulted in buyers being prepared to pay more than the fundamental value of the electricity being produced. Structural changes in the generation sector had helped to reduce market power but had not removed the problems arising from Pool rules or the interaction between generators.

12.163. In Yorkshire Electricity's view, structural changes had increased the risk of constraining competition in supply and reducing the security of supply. It estimated that some 80 to 85 per cent of the industry was now vertically integrated with the result that independent suppliers and new entrants would be disadvantaged unless they had access to competitive supplies of electricity in the wholesale market. It speculated that contracts within vertically integrated supply and generation companies would remove capacity and reduce liquidity, and could lead to discriminatory or non-transparent pricing. Combined with the potential to manipulate prices, the generation arm of a vertically integrated company could increase volatility in the wholesale market while leaving its supply side immune because of an offsetting internal hedge contract. This could preclude effective competition in supply.

12.164. Yorkshire Electricity thought that the Balancing Mechanism within NETA would provide a similar reference point to that currently provided by the Pool. Prices would relate to those in other longer-term markets and arbitraging between markets would ensure price consistency. In the longer term, increased involvement of the demand side would promote independent values for wholesale electricity prices and provide mechanisms for tailoring the demand that suppliers had to meet.

12.165. In Yorkshire Electricity's opinion, the introduction of the MALC could help the development of contract and trading markets both in the Pool and under NETA. There was currently an imbalance in negotiating power, and this had manifested itself through significant premiums on Pool prices secured by generators and against a background of excess capacity. Recent developments in the industry had not had sufficient effect to render the adoption of the condition unnecessary. Reliably applied it would give confidence to those non-generator participants in the wholesale markets. However, it had not yet matched up to original expectations. In particular, generating companies could clear courses of action in advance and in private with Ofgem and trade on the information advantage thus provided. If the condition were to be effective, there had to be greater transparency and an end to the provision of informal guidance. In addition, given the degree of judgement necessary for its operation, an appeals mechanism ought to be established. In this way, a greater degree of confidence in the condition would emerge.

12.166. Yorkshire Electricity had no evidence to suggest that, in the future, either AES or British Energy licence-holders would manipulate the market. There would be opportunities for all generators to benefit from increases in Pool or balancing market prices and their knock-on effects into the EFA and futures markets. It did not believe, however, that the behaviour of one particular generator should be the criterion for applying the MALC. Rather, the need for the MALC should be seen as a reflection of market conditions and not a criticism of specific generators which had it within their licences.

12.167. Asked about the possible effects of the MALC being added or otherwise to the licences of AES and British Energy, Yorkshire Electricity said that all generators should be treated equally.

Remedies

12.168. Commenting on proposed remedies, Yorkshire Electricity said that these should address both Pool and NETA environments. In particular, the MALC should be applied in both situations, preferably generically, since it would be difficult to focus on prohibiting specific forms of behaviour alone. The introduction of NETA per se would not, immediately, constrain a potential for market abuse. A credible countervailing power to the price aspirations of the generators would take time to develop and while this was happening the effects of any abuse would be felt, not only in the short term, but also through to longer-term markets. Yorkshire Electricity considered that the adoption of prescriptive prohibitions would not be in the public interest. Experience had shown that generators were capable of price-management behaviour that could circumvent specified prohibited practices. It was essential, too, that implementation times be taken into account. There was scope for generators to change bidding strategies frequently under both systems. The process of concluding that a course of action be outlawed and enacting a consequential decision was a lengthy one. For these reasons, Yorkshire Electricity suggested that a generic approach, which would be consistent with that adopted under both the Competition Act and the FSM Act, be applied.

Traders and power exchanges

Dynegy Europe Limited

12.169. Dynegy Europe Limited (Dynegy) said that it was a British company trading through subsidiaries in energy commodities in the UK. Its parent company in the USA, Dynegy Inc, had vast experience and knowledge of energy markets and their liberalization gained in both the USA and the UK. Dynegy supported the Government in the introduction of NETA. However, it was neither a generator nor supplier and, as such, was neutral; it had no entrenched position.

12.170. Dynegy said that open competitive markets encouraged new entrants, increased liquidity, and enabled supply and demand fundamentals to determine the proper price for the underlying commodity. However, this would not happen if incumbent participants or those with market power were allowed to frustrate the market and distort competition.

12.171. There had been a history of market manipulation and abuse in the electricity industry and this had continued following the divestment of generating plant and the entry of new generators in recent years. The nature of electricity and the need for continuous balancing of supply and demand required

complex rules under the Pool and would continue to do so, though to a lesser extent, under NETA. Dynegy said that complex rules were always vulnerable to manipulation; in addition, vertically integrated market structures were difficult to monitor and control and participants tried to conceal their manipulative activities under the guise of cost recovery or poor economic conditions. It was Dynegy's opinion that the electricity market was not yet ready for only light regulation and minimal licence conditions. It was essential for Ofgem to monitor the market effectively and act decisively to stamp out abuse, otherwise a few vertically integrated players with market power would control the market and the prices set in it.

12.172. Dynegy said that the impending introduction of NETA had had a significant downward effect on prices over recent months. In its experience most generators had had the opportunity to protect themselves against falling prices by entering into CfDs or EFAs to fix their price. Some of them had decided against this action and, in Dynegy's view, ought to either reap the rewards or suffer the hardships of their decisions on the basis of a true market price as in any competitive market. When prices had fallen, some generators had withdrawn capacity, intending to return it to the market when they considered the economic conditions sufficient for them to do so. Dynegy believed that such behaviour might not be covered by the Competition Act. In the same way, there would be scope and incentives for generators to distort prices in the close-to-real-time market for the Balancing Mechanism by restricting some of their generation capacity or through price-bidding strategies. This could have significant effects on the longer-term bilateral markets and would be to the ultimate detriment of consumers.

12.173. Dynegy said that the Pool system had exacerbated market power and enabled generators to engage in particular forms of abuse. It had resulted in only a small proportion of generation capacity setting SMP. Thus, a few players, that is those with flexible plant and price-setting capabilities, had greater market power than they would have under arrangements in a different market. The capacity payment element enabled and incentivized portfolio generators to set prices in such a way that they could make a greater profit on their remaining generation—and on their contract positions—by withholding some of their generation capacity from the market rather than selling it.

12.174. Referring to examples of market abuse in Ofgem's initial submission, Dynegy said that price-bidding strategies, and the withholding of capacity to increase prices, had had knock-on effects in the forward markets, where taking a particular position could be combined with manipulation of prices at delivery, so as to greatly enhance profits. For example, a generator with market power could plan to withdraw generation during a particular delivery period and, armed with exclusive knowledge, could forward buy CfDs for that period at the price prevailing at the time of purchase. It could buy not only to cover any shortfall in its position caused by its withdrawal of capacity, but also to place itself into a long position. Withdrawal of capacity could then be announced. Prices for the withdrawal period would very likely rise, assuming that demand had not changed, as it became evident that supply was about to be restricted. The generator would, in those circumstances, receive a higher price for remaining generation runs in that period. It would also make a profit on its forward contracts, either by selling its long position in the forward market ahead of the withdrawal period at a higher price than it paid, or by settling against the new higher price in the withdrawal period. An extension of this example of market manipulation would be the vertically integrated generator using its market power to drive down price in the contracts market through its trading affiliate selling until it was short. It could buy back the cheap product until long, withdraw some capacity, and push up prices in the physical market for its remaining generation capacity and in the contracts market in which it would be long. In addition to the immediate profits, the generator would have some benefit from the purchase of the cheap product.

12.175. NETA would remove some of the opportunities for abuse that had existed in the Pool. Dynegy suggested, however, that it might still be possible to manipulate the rules in order to force NGC to buy and sell at prices that were not competitive. If this happened, it would affect prices at which out-of-balance participants were settled. Nor was it yet clear how competitive the Balancing Mechanism would be. There was a strong possibility that market power would develop in the Balancing Mechanism because there were a limited number of generators that could offer the flexibility required in it. There would, therefore, still be potential for generators to manipulate wholesale electricity prices through the Balancing Mechanism.

12.176. Dynegy was concerned that Ofgem might have insufficient scope under the Competition Act to take action against abusive behaviour. It gave, by way of example, situations where there was a significant impact on the competitiveness of the market, but where the relevant party would not be regarded as dominant under EC case law, irrespective of Ofgem's own guidelines. At present, there was a lack of EC case law that could be readily applied to the UK electricity market. Case law under the

Competition Act would be developed, over time, but groundbreaking precedents would be required and these would be subject to appeals and long delays. Meanwhile, if the DGES was unable to act, certain parties would be able to manipulate the market with impunity, to the detriment of consumers and competition, because they did not fall within the established test of dominance.

12.177. It was Dynegy's view that not modifying the generating licences granted to companies in the AES and British Energy groups might be expected to operate against the public interest. It supported the DGES's initial submission to the CC. Dynegy said that it had grave concerns about how the Pool had been operating and about the operation of the electricity market once NETA was introduced. The modification of the licences of all generators with market power should remedy the situation, and it supported the MALC.

12.178. It was, however, concerned about the DGES's offer to provide confidential guidance to generators since it believed that all additional guidance on the MALC must be made available to all participants in the market at the same time, to ensure transparency.

Remedies

12.179. Commenting on our proposed alternative to the MALC (see Appendix 2.1, Annex B), Dynegy said that it perceived danger in a condition that was less than comprehensive in its cover of all potential abuses in the future. The electricity industry had a history of taking advantage of any loopholes in licence conditions and trading rules. That being so, the MALC should remain flexible, as was the EC and UK competition legislation upon which it appeared to have been modelled. Dynegy added that the guidelines should provide further clarification of the general circumstances in which the condition would apply.

12.180. Aside from the principle that the scope of our proposed condition should not be narrowly defined, Dynegy was concerned that the condition that behaviour must have an adverse effect on wholesale electricity prices was too restrictive. Behaviour could, in fact, adversely affect the effective or economic balancing of the system, and this would increase risks and costs to the system, without necessarily increasing wholesale prices directly. Under our proposal the regulator would not be able to deal with such behaviour. Similarly, the definition of manipulation was too limiting, as the fact that price-bidding structures were complex was irrelevant. The need for the regulator to establish that such structures were designed to cause higher SMPs was also too limiting, as it would be too difficult to prove. It was more relevant that prices would be offered by parties with substantial market power that disregarded the fundamentals of cost and the supply and demand balance at different times. Finally, Dynegy said that, for the purpose of determining the supply conditions in the market, any withdrawals of capacity without cause by the party concerned should be disregarded.

12.181. Dynegy said that the MALC should continue under NETA since, with the new arrangements, there would be incentives and opportunities to game the system. Dynegy had provided Ofgem with examples of potential abusive behaviour under NETA but did not profess to have identified every potential situation. For this reason, it said, a more generally worded condition was required.

12.182. Dynegy said that the Advisory Body, supported by appropriate consultants and experts, should be able to review any decisions of the regulator. It believed also that the effectiveness of the MALC would be strengthened when the Secretary of State brought into force those sections of the Utilities Act that provided the regulator with powers to impose a fine for a breach of a licence condition.

Enron Europe Limited

12.183. Enron Europe Limited (Enron) said that its principal business activity in the England and Wales electricity market involved trading in the forward market where it was the main source of liquidity; in addition it had interests in production and supply. Enron said that it accounted for a large percentage of forward market trades and that it was the only participant acting as a market maker by offering two-way prices for all forward market products.

12.184. It was Enron's belief that the benefits to consumers of liberalizing energy markets would be attained only if properly functioning, liquid wholesale markets existed. Low liquidity made it difficult and expensive to hedge as the difference between buying and selling prices increased. Inactively traded

forward markets resulted in a lack of price discovery; this made it difficult for existing participants to make effective decisions and for potential new entrants to assess the likely returns from entry.

12.185. Enron had fully supported the DGEN's objectives of increasing competition and introducing NETA; it believed that both would increase liquidity in the forward market, but it questioned the appropriateness of many of his proposals for the future regulation of the industry. Enron said that the development of a liquid and efficient traded market relied on the absence of significant shocks from unpredictable and unmanageable risks, including those that stemmed from regulatory intervention.

Market definition

12.186. Enron said that with demand for electricity continually changing, and since physical or contractual constraints were a feature of some generating plants, it was difficult to define the relevant markets and subsequently to identify dominance. It suggested that the difficulty could be overcome if the energy market were to be divided into several temporally separated markets and care were taken to adjust available economic capacity for price-taking baseload plant. The need for temporally differentiated product markets arose because demand for electricity was continually changing and consumers' ability to alternate between different time periods was severely limited. Enron suggested that the relevant production capacity might be defined as the amount used to meet demand at lowest cost, plus some (slightly more expensive) capacity which could be used as a substitute for the producing capacity if prices were raised by the given percentage. The usual procedure would then be to apply some form of market concentration measure. However, in the electricity industry, such a measure might significantly underestimate the level of dominance of any single company, given the price-taking nature of several generators and the physical or contractual constraints under which they operated. Companies with more flexibility might dominate the residual demand that was not met by the price-taking ones. Enron said that a failure to account for the price-taking fringe would result in underestimates of dominance.

12.187. Enron thought that, in defining the market under NETA, it would not be appropriate to deal with the contract market and the Balancing Mechanism separately. Since energy in the forward market was a perfect substitute for energy within the Balancing Mechanism, they should be considered together for these purposes. Enron was of the opinion that Ofgem had designed the Balancing Mechanism to be unattractive for participants to buy or sell energy without notification and that participants would, therefore, use the forward market to trade energy. It expected that, in the long run, forward prices would become an unbiased estimate of Balancing Mechanism prices and that persistent arbitrage between forward prices and Balancing Mechanism prices would not be possible.

Market power and its abuse

12.188. Commenting on the distinction between legitimate commercial behaviour and abuse of market power, Enron said that it was not difficult to recognize competitive behaviour under current Pool-based trading arrangements. It could be found in situations where all companies offered all their available capacity to the market at short-run marginal cost. Such a situation would arise if all companies acted as price-takers and agreed to sell production only when prices were above their short-run marginal costs. Enron said that, changing fuel costs and operating efficiencies apart, plant should always be offered at the same prices. This applied under present arrangements, but only because the Pool had been designed to allow recovery of costs incurred in setting up plant, and in producing power from it until it shut down. In other electricity markets, where start-up or capacity costs were not paid directly, generators could be expected to alter prices in order to recover such costs over differing time periods.

12.189. Enron said that, under NETA, participants would not be profitable if plants were priced at short-run marginal cost. Instead, they would forecast market price and price at that level. Assuming that all relevant information was available, in a competitive market under the pay-as-bid pricing mechanism, all plants producing output would price at the continually changing level of system marginal cost, rather than their own marginal costs. Under NETA, participants would not have all relevant information available when making pricing decisions and this would reduce their ability to predict accurately the offer of the marginal plant.

12.190. Enron said that it was difficult to suggest a minimum period of time over which it would be possible to assess whether a generator had abused market power. Academic studies had suggested a

period of several months or more but in practice a much shorter duration might be appropriate for severe cases of abuse.

12.191. In Enron's view a generator would need to possess substantial market power, as defined by the DGES, in order to be able to manipulate prices. With regard to the categories of costs to be taken into account in determining whether abuse had occurred, Enron suggested that, in the very short term, marginal costs, based on fuel and variable operation and maintenance costs, should be compared with prices. Over longer timescales it would be appropriate to include relevant avoidable costs. By way of example, Enron suggested that, in an analysis of capacity withdrawal, the appropriate costs might involve fixed costs that could be avoided during the withdrawal period.

12.192. With regard to the relevance of profitability to the identification of abuse of market power, Enron said that a report by a large incumbent firm of supra-normal profits which could be directly attributed to its activities in a certain market might indicate abuse of a dominant position. However, assessing conduct by reference to accounting data could be problematical. A small baseload generating unit, for example, might be extremely profitable in the event that other firms were manipulating the price.

12.193. Commenting on the effect of abuse on the development of trading and contract markets, Enron said that the movement of spot market prices by one or more companies had created a large disincentive to trade in the forward market and had deterred new entry. It was difficult to quantify the effects in terms of reduced liquidity, but Enron believed that they had been major. The England and Wales market had become reasonably liquid only after plant divestment in 1999.

Market abuse under the Pool

12.194. Commenting on market abuse in the Pool, Enron said that the complex design of the Pool had not caused participants to exhibit market power. It had been rather the overconcentration in ownership that had primarily contributed to the historic exhibition of market power. It said that, in a competitive market, marginal pricing gave participants incentives to reveal their marginal costs. If a plant were to be offered above marginal cost it risked not being run profitably; if offered below marginal cost, it risked being run at a loss. Notwithstanding this, the deterministic nature of the Pool's marginal cost price-setting mechanism had facilitated coordination among participants and had led to tacit collusion to maintain high price levels.

12.195. Enron said that the Pool arrangements provided no incentive for active participation by the demand side, since market prices were set using a forecast of demand provided by NGC. Suppliers faced no risk in assessing their load and so had no incentive to manage it. (Exposure to risk ought to result in an increase in demand elasticity with participants being precluded from profiting from price rises.)

12.196. The design of the Pool had not, in Enron's view, impeded the development of a liquid contract market; nor could the slow development of this market be attributed directly to the Pool arrangements. It suggested that some aspects, for example neutral cash-out prices and good information, could, in fact, be seen to promote trading. The market had not been particularly liquid in recent times, but this had been as a result of generators' market power. One outcome was low transparency of information since there was little incentive for third parties to provide it. Since volumes had increased, price reporting, in particular, had also increased substantially.

12.197. Enron said that if NGC had been incentivized to minimize SMP, some past abuses of market power, in particular the ability of participants to create price spikes, might have been precluded. However, reducing concentration in ownership would, in Enron's view, be a more appropriate way to address abuses than market rule modifications. Enron commented that the capacity payments mechanism had been particularly vulnerable to abuse. By withdrawing plant, generators had been able to increase the estimated LOLP on which capacity payments were based. They could then readily calculate the increased payments for their remaining plant. Enron added that this aspect of the market mechanism, more than any other, would benefit from reform.

12.198. Enron said that the Pool governance arrangements had made it difficult to change the rules because suppliers and generators had both been able to block changes. However, the arrangements had had the beneficial effect of ensuring a great degree of certainty about the market rules. Without that, new inefficiencies would have resulted as participants attempted to manage the risk of continued changes.

12.199. Commenting on the effect on contract prices of the Pool's vulnerability to manipulation, Enron said that, whilst there had previously been substantial risk associated with forward contracts, this had decreased as a result of plant divestment, which had reduced the ability of generators to manipulate prices.

Market abuse under NETA

12.200. Commenting on suggestions that NETA would reduce the risk of market abuse, Enron said it accepted that, as a result of the method used to calculate cash-out prices in the Balancing Mechanism, the majority of energy demand would be traded in the forward market. This would not necessarily be a good thing. If cash-out prices were penal, participants would avoid taking speculative positions in short-term markets, thus reducing liquidity in these markets.

12.201. Enron said that prevailing circumstances would determine how much scope generators had to exercise market power in trading arrangements outside the Balancing Mechanism. With small volumes being bought or sold within the mechanism, it expected a strong arbitrage relationship to hold between prices in the mechanism and forward market prices. This would mitigate some abuses but was unlikely to eliminate abuse altogether. To the extent that participants might be able to manipulate prices in the Balancing Mechanism, they would be able to influence forward market prices. If the generation market was sufficiently competitive, no company would have market power. Enron also believed that the discretion given to NGC in how it chose to balance the system under NETA might prevent some gaming opportunities.

12.202. Under NETA's pay-as-bid pricing rule, Enron expected that participants would form expectations about market price, and price their output accordingly. In a competitive market, with all relevant information available, the expected price would be the marginal cost of the marginal plant. However, because of constantly varying market conditions and lack of information, there was potential for misjudging the continuously shifting balancing of price levels. Enron said that this process was inefficient since high-cost producers might run in preference to low-cost producers which had overestimated the market price. Pay-as-bid pricing might lead to some inefficiencies; however, the fact that participants would have to change offer prices continually as demand changed should make it much harder to maintain the coordination necessary for tacit collusion.

12.203. Enron said that the Balancing Mechanism under NETA had been designed in such a way as to make it unattractive for participants to buy or sell energy without notification. As a result there would be a significant amount of energy traded forward. Some participants might wish to trade in the short term in an attempt to adjust their physical positions prior to Gate Closure, but it was not possible to judge how much power would be traded either short-term or long-term. Enron believed that, as traded volumes increased and additional counter-parties entered the traded market, the existence of liquid forward markets would further mitigate market power abuses. Day-ahead market liquidity had already increased, driven by the desire of participants likely to be active in these markets under NETA to gain experience in trading.

12.204. Enron thought that prices in the Balancing Mechanism might reduce the scope for manipulation. It considered also that the abolition of the capacity payments mechanism would reduce a generator's ability to raise prices by withdrawing capacity when significant levels remained on the system. Enron added that, if and when the system did run short of capacity, a generator might, by withdrawing plant, force the system operator to adopt highly-priced demand reductions before they occurred naturally.

12.205. Enron said that the flexible governance arrangements under NETA should not be used lightly when responding to short-term market events as this would only create uncertainty. It expected that rules would be changed if particular aspects of the Balancing and Settlement Code proved to be vulnerable to manipulation.

Other constraints on the abuse of market power

12.206. Enron said that plant divestment since 1999 had caused forward prices to fall significantly. It was, however, concerned about the rapid vertical integration in the industry which would reduce liquidity in the traded market and give rise to the prospect of price discrimination in the supply market and monopsony power in the wholesale market. Enron thought that the planned sale by Powergen of up to

three of its plants might further reduce the ability of any company to manipulate prices in the wholesale market, unless the plants were to be sold to other incumbent generators.

12.207. Enron believed that the Competition Act could be used to deal with the abuse of market power by generators in the wholesale market. To the extent that participants believed that the enforcement powers under the Competition Act and the FSM Act would be used they would be an effective deterrent, although at least one successful investigation might first of all be necessary. The MALC was the present alternative deterrent to abuse of dominance. Enron suggested that the MALC effectively sat between the DGES and the Competition Act and significantly diluted the deterrent effect of the Act.

[✂]

12.208. [

Details omitted. See note on page iv.

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Market abuse licence condition

12.209. Whilst Enron understood the DGES's desire to address market power abuses, it believed that the MALC was inappropriate and operated against a fair market. It commented that regulation designed to control market power could also undermine competition when applied in an unpredictable manner. It feared that the costs of the DGES's increased powers would far outweigh any potential gain to consumers, especially in view of the way in which Ofgem had developed and sought to implement the new conditions. Specifically, Enron drew attention to:

- (a) the DGES's belief that the Competition Act could not be applied to the abuse of dominant positions in the electricity market;
- (b) the DGES's failure to follow his own guidelines when determining the firms to which the new licence would apply;
- (c) the bilateral discussions between Ofgem and those generators whose licences it was attempting to modify;
- (d) the granting of comfort by Ofgem to generating companies, through confidential discussion, on proposed modifications of bidding and capacity strategies; and
- (e) the DGES's failure to use his new powers when an obvious breach of the MALC had occurred.

12.210. Enron suggested that the concepts and principles associated with competition law were widely understood; the Competition Act would, therefore, have been the most appropriate medium to address the abuse of a dominant position in the market. It was concerned not that the MALC in itself sought to control the abuse of market power but about the unpredictable manner in which it had been implemented and applied. The DGES's discretionary powers in respect of defining whether a generator had substantial market power, deciding whether that power had been abused and taking enforcement action to correct perceived abuse were also cause for concern. Such discretion made it difficult for an independent trader to understand, for example, how generators would comply with the condition, how and when Ofgem would choose to intervene, or the effect of any intervention on future behaviour.

12.211. Enron was particularly concerned about the influence that participants might exert on the forward market for electricity following the granting of comfort in private discussions with Ofgem. Whilst it would be acceptable for the DGES to provide clarification to the entire market on the interpretation of the MALC, private bilateral discussions on an individual generator's bidding strategy were not acceptable if they resulted in a change in a participant's strategy. Such regulatory discretion could only lead to more risk in the market which would drive down liquidity and drive up contract premiums and prices to the consumers. Enron commented that the DGES appeared to be willing to negotiate with the

companies he was attempting to regulate. This would only make it less likely that the MALC would be enforced and would dilute any deterrent effect.

12.212. Enron believed that the introduction of the MALC appeared to have had the opposite effect to that intended. The discretion that the DGEN had afforded himself in developing and applying the MALC had added to the risk in the market. In Enron's opinion, the DGEN had been given adequate powers under the Competition Act to deal with abuse and should have established the procedures under which the Act would be applied instead of developing a new licence condition. Enron concluded that the MALC operated against the public interest and should not be included in the licences of AES or British Energy.

12.213. Commenting on our proposed alternative remedy (see Appendix 2.1, Annex B), Enron said that, if such a licence condition were required, it should take the form of a general effects-based prohibition on the lines of the MALC rather than a condition that prohibited specified conduct. A major problem with the latter was the impossibility of creating a comprehensive list of all possible manipulations. New forms of abuse or market rule changes would make subsequent alterations to the condition extremely difficult.

12.214. Enron did not believe that the enforcement procedures open to the regulator in the event of a breach of the MALC provided a credible threat to licence-holders. It believed that this had been demonstrated during Ofgem's investigation under the MALC of withdrawal of capacity. Although Ofgem found that there had been a breach of the MALC, Edison had avoided an enforcement order by taking steps that the DGEN judged to be appropriate for securing compliance. Enron commented that a firm's ability to breach the MALC, wait for an investigation and then avoid action by agreeing to mitigate the breach removed any deterrent effect of the MALC. Enron suggested as a solution the early introduction of financial penalties for licence-holders in breach of licence conditions, as provided for in the Utilities Act.

12.215. Although Enron continued to have concerns about the application of the MALC, it found the greater clarity provided in Ofgem's guidelines to the MALC under NETA encouraging. It particularly welcomed the avoidable cost test that Ofgem had introduced as the most appropriate way to test whether historic withdrawals of capacity were an abuse of market power. Enron commented, however, that the problems involved in accurately estimating a firm's avoidable cost could result in an inconclusive answer. To address this, it suggested a second test, involving an independent assessor inviting offers to buy the capacity in question. The licence-holder would be in breach if it failed to sell the plant or return it to service when the assessor found that the capacity could be sold.

UK Power Exchange

12.216. The UKPX is the marketplace offered by OM London Exchange Limited for trading in contracts based upon electricity in England and Wales. The UKPX said that it also provided integrated clearing services for contracts traded by means of its facilities. OM London Exchange is an RIE. Accordingly it is regulated directly by the FSA in relation to any investment instruments listed by the OM London Exchange.

12.217. The UKPX said it believed that conditions in the electricity market had enabled certain parties to be in a position to influence prices, free from effective sanctions or controls. This discouraged participation in the market and damaged confidence. The UKPX also believed that parties might have had concerns about entering into contracts with generators under the Pool arrangements, where generators exerted a strong influence in determining the Pool price. It supported the view that the perception of price manipulation tended to encourage forward contract trading, but also believed that it could distort participants' perceptions of a realistic or fair price for the forward contract. As a result, excessive premiums would be likely to be paid.

12.218. The UKPX said that the recent structural changes in the generation sector had reduced the likelihood of manipulation, albeit marginally. Whilst diversity in the number of producers helped, the problem of manipulation would remain as long as there remained a high degree of concentration or a limited range of suppliers. For this reason, reducing the risk of price manipulation would depend on cultural changes and the introduction of appropriate arrangements to deter and detect instances of attempted manipulation. Although the UKPX welcomed NETA, it believed that it would not be a complete solution to the problem. The NETA arrangements could be compromised by concerted pricing

strategies by suppliers. Whilst such strategies would be different from those used in the Pool, the UKPX envisaged that practices could develop which would have a manipulative effect on electricity prices.

12.219. In the UKPX's view the MALC would help the development of markets by reducing the likelihood of manipulation. Its success would depend upon procedural steps such as arrangements for co-operation with other regulatory bodies and market providers over sharing information and co-ordination of monitoring of market activity. The MALC itself should not inhibit the development of contract and trading markets or create uncertainty. The UKPX noted that penalties for abusive and manipulative conduct had not inhibited the growth of other markets. However, it was important that market participants were aware of the conduct which would be in breach of the MALC or of any other rules. Care should be taken in drafting the conditions, related codes of conduct and rules of relevant markets in order to ensure that they were clear and had no areas of uncertainty. The UKPX did not have any specific reasons for believing that AES or British Energy would attempt to manipulate the market in the absence of the MALC. However, it believed that the condition should be applied to all generators together with the other measures in order to reduce the possibility of market manipulation.

Gas shipper

ExxonMobil International Limited

12.220. ExxonMobil International Limited (ExxonMobil) made a submission on behalf of Esso Exploration and Production UK Limited, which is a producer and shipper of gas. It told us that no ExxonMobil company held a licence under section 6 of the Electricity Act.

12.221. In ExxonMobil's opinion, continuation of the generation licences of AES and British Energy without the MALC would not be adverse to the public interest because competition law existed to prevent collusive behaviour and abuses of a dominant position. It added that the MALC was not an adequate remedy and in any case was unnecessary and inappropriate.

12.222. The MALC represented a concept of market power which went beyond the obligations imposed by established national and EC competition law. ExxonMobil believed that existing statutes, supported by case law, were sufficient protection for customers and consumers. There were significant penalties to encourage compliance. By contrast, the MALC was general and untested.

12.223. ExxonMobil was concerned that, depending on interpretation, the term 'ability to bring about ... substantial changes in ... prices' could apply to most industry participants and thus trigger the MALC. For example, planned or unplanned maintenance activity by a single generator could affect prices. Any similar application of regulation in the gas industry would have the effect of restricting freedom of choice in the timing of production of gas reserves, for example between one day and another.

12.224. As the MALC seemed very general, ExxonMobil feared it could lead to dispute and excessive regulatory involvement in day-to-day business decisions. In particular, the DGEN's examples of abuse were open to interpretation (and in any event were not exhaustive). This uncertainty was likely to cause disputes between the DGEN and licence-holders. Further, the penalty of licence revocation or fines in the face of such uncertainty was not equitable; and the fact that interpretation would be based on guidelines issued by Ofgem gave the regulator further opportunity to broaden the scope of the condition. ExxonMobil added that the condition appeared to go beyond a reasonable level of regulation and unnecessarily deprived participants in the industry of the commercial freedoms that their substantial investments warranted. The need to justify every commercial decision in the light of the MALC would substantially increase costs which could adversely affect prices to consumers and also reduce competition by causing the exit of some industry players.

Bodies representing users

Energy Intensive Users' Group

12.225. The Energy Intensive Users' Group (EIUG) represents the views of ten trade associations and two associated user groups. The groups consume a considerable amount of energy which constitutes a significant part of their costs. Constituent companies have sister plants worldwide and many of these

are in competition with other global players in their respective manufacturing fields. The EIUG said that its main focus was to ensure that the UK's energy prices and service levels were internationally competitive. This would help to maintain its members' positions in the global markets in which they operated. The EIUG told us that recent significant reductions in EC electricity prices had increased the problems of maintaining global positions. Achieving the objective of parity with the rest of Europe, let alone having better prices, was some way off.

12.226. The EIUG said that its interest in Pool operations would continue until the decommissioning date since, in its estimation, some 200 sites in England and Wales would still operate on Pool-related contracts until then. There were, in fact, current concerns about price levels in the Pool arising from the capacity component. The EIUG suggested that the track record of abuse in the Pool had been well documented. It referred to previous price investigations by OFFER and Ofgem which, it said, had highlighted irregularities in generators' behaviour, including abuse from market dominance, plant availability, excessive pricing behind constraints, and capitalizing on the misfortune of other players. The EIUG said that customers had not received compensation for what had been proven market abuses. Complex market rules had given generating companies in particular the opportunity to exercise innovative trading practices designed to maximize profits at the expense of customers. In addition, they had ensured that Ofgem was never fully abreast of developments. The EIUG said that the rules covering the Balancing Mechanism would be equally complex, requiring the regulators to apply added vigilance on potential market abuse situations. It welcomed the fact, however, that there would be customer representation on the system's governance. The EIUG welcomed, also, developments since privatization, with particular regard to plant divestment. It suggested that there could be additional new entrants following the lifting of the gas moratorium.

12.227. The EIUG was concerned also that capacity payments had not been competitive. It said that they had been manipulated in the past and had remained virtually unchanged since privatization. An increase in capacity payments had always occurred when there was downward pressure on the SMP with the result that the PPP remained at similar levels from one year to the next. The EIUG considered that the capacity element was being used to keep the PPP at artificially high levels and not to stimulate the construction of new generating plant as originally intended. Whilst it had noted with satisfaction that there would be no specific capacity element to prices offered under NETA, the EIUG remained concerned about the proposed capacity options.

12.228. The EIUG supported activities and initiatives which would help to meet its aim of internationally competitive prices for UK businesses; and it supported Ofgem and the DTI in delivering the new trading arrangements as soon as possible. It supported, also, the regulator's initiative with generating companies in the introduction of good behaviour clauses. In its view, action through the Competition Act might not always benefit customers in situations of global constraint and local monopolies. Finally, it supported the recent proposal by some suppliers to remove the disappearance ratio from summertime generation options. Some relief for customers currently on Pool contracts would result from the reduction in capacity payments.

National Electricity Consumers' Council

12.229. The National Electricity Consumers' Council (NECC) said that, with certain caveats, it supported initiatives taken to curb generators' market power. Divestments of plant had been in the public interest. They had reduced concentration in generation, market power and potential for abuse, and had provided scope for the introduction of new players into the industry; in addition, the removal of the gas moratorium might encourage the construction of further plant and increase competition. However, there remained serious concerns that, since there were, in practice, only a few generators, these might take advantage of vertical integration.

12.230. The NECC considered that NETA would facilitate improvements within the system for wholesale trading. It envisaged a greater potential for demand-side bidding and more commercial risk, with the development of competitive strategies in a more realistic trading environment. However, the NECC remained concerned that NGC had been included as a trading party outside the Balancing Mechanism.

12.231. The NECC shared Ofgem's doubts as to the effectiveness of the financial services regulations in addressing the key issues, but considered the scope of the Competition Act to control abuse of dominance to be an improvement.

12.232. Whilst the NECC supported the principle of the MALC, it was concerned that regulatory uncertainty might damage existing participants and deter new entrants. It would be necessary to differentiate clearly between unfair profit or market abuse and commercial decisions. It was not enough for Ofgem to provide private reassurances to some generators; there was a need for greater public transparency. The NECC doubted whether Ofgem had the resources and expertise to enforce the MALC effectively and fairly, and questioned the justification for suggesting that it should be extended to suppliers.

Remedies

12.233. Commenting on our remedies statement (see Appendix 2.1, Annex A), the NECC said that the concept of a market manipulation clause was a sensible alternative to the MALC, given that it would address concerns about gaming by generators under the Pool rules. The NECC supported the inclusion of the three forms of manipulation we had proposed and added that, where a transmission system had insufficient capacity available, generators could bid in the knowledge that they would be constrained off the system and paid. Such conduct was not so much use of complex bidding structures as taking advantage of limited transmission capacity by making generation capacity or energy available in circumstances where a generator could not reasonably be expected to provide the capacity or energy on offer. The NECC questioned whether the term ‘manipulation’ suggested that there would be intent on the part of the generator; in its view the term should not carry that implication and it asked us to clarify the condition accordingly. The NECC suggested that consideration should be given (by the DGES if not by us) to including such a condition in all generation licences (but not in supply licences) as an alternative to the MALC.

12.234. [

The CC has advised that this paragraph was included in error and it has been excised in accordance with section 13(6) of the Electricity Act (see note on page iv).

]

Utility Buyers’ Forum

12.235. Members of the Utility Buyers’ Forum (UBF) are drawn from individual companies with substantial experience of the electricity market. It is an active member of the EIUG.

12.236. The UBF said that it had campaigned extensively about the lack of competition in the generation sector and had played an active part in the creation of NETA. It said that almost from the outset there had been abuses of dominant market position in the Pool and gaming of Pool rules went back as far as September 1991. The Pool arrangements were a major part of the problem as was the restricted ownership of the key marginal plant. The UBF had welcomed the divestment of plant by the major incumbent generators and acknowledged the effect of this on the competitiveness of the market. It believed that the imminence of NETA had been a major factor in the improved prices available to business customers in 2000.

12.237. Despite these strong indications of improved market conditions, the UBF believed that the situation could easily be reversed. It believed that the powers available to the DGES under the Competition Act were not a sufficient guarantee of the continuance of satisfactory market conditions and that the distinction between substantial market power and dominance left a gap which must be filled.

12.238. The UBF said that the MALC was also needed because of the problem of constraints on the national grid. There could be occasions where certain gensets might be forced to run to maintain the stability of the national network or might be forced not to run. It was reasonable for the gensets to be compensated appropriately, but experience had shown that if left entirely to the bids of gensets, whether

they were constrained on or constrained off, there could easily be an abuse of a local monopoly position. Whilst the problem might be of a temporary nature in any one location in the country, it would tend to arise at some point on the system most of the time. The UBF believed that customers needed the protection of the MALC to guard against monopolistic behaviour in such circumstances.

12.239. Although the MALC might not answer the complex question as to what constituted a 'reasonable' price from a genset that was employed only infrequently, the DGES needed adequate powers to protect customers in such circumstances.

Trade associations

Association of Electricity Producers

12.240. The Association of Electricity Producers (AEP) is the trade association for electricity generators in the UK. It said that the continuation without modification of the licences referred to the CC would not operate against the public interest; moreover modification of the licences in the manner proposed by the DGES could itself be more detrimental to the public interest. The MALC was unnecessary and would increase market uncertainty. [

The CC has advised that this sentence was included in error and it has been excised in accordance with section 13(6) of the Electricity Act (see note on page iv).

] The generating market in England and Wales had become increasingly competitive and was not a market where any one company was dominant. Changes in ownership of capacity and in market shares had been immense. It also disagreed with the view that electricity differed so much from other commodities that it required its own test for competitiveness.

12.241. In the AEP's view, there was a serious risk that the potential for misuse of the MALC would inhibit the proper development of NETA. The Competition Act and the FSM Act were rigorous legislation designed to deal with market abuse. Abuse of a dominant position under competition legislation was already taken seriously by the companies affected and the DGES's proposal to use a different test from that of the Competition Act, namely 'substantial market power', was unnecessary.

12.242. The AEP said that the MALC would be open to wide interpretation by the DGES and did not make it clear to licence-holders what behaviour could be considered as acceptable. In the AEP's view, interests such as a large customers' lobby might wish to ensure that electricity trading was not merely a competitive activity but remained on the political agenda in order to have more of a commercial influence. Since the DGES would be the likely focus of these interests' attention, there would be an increased chance of misunderstandings about the behaviour of participants in the market and the misuse (even unwittingly) of the powers in the licence condition. The AEP was concerned that it would be very easy for the DGES to be 'wise after the fact' in circumstances when a group of market players responded to future indicators and withdrew too much plant. The forward information that would be available to generators in the future would depend on the activity of suppliers (particularly independent suppliers) in the futures market. Independent suppliers might believe that they could force plant to stay open by manipulating the DGES to invoke the licence condition.

12.243. Further, the MALC would inhibit innovation in companies' strategies and hold back the proper development of NETA. The added regulatory risk caused by the MALC would increase costs for the existing players, add to the cost of capital for potential investors in the industry and have a deterrent effect on traders entering the market. The AEP was also concerned that the absence of a proper appeal process served to increase the regulatory risks.

Confederation of UK Coal Producers

12.244. The Confederation of UK Coal Producers (COALPRO) represents companies that produce some 90 per cent of UK coal, over 85 per cent of which is sold to the electricity market. COALPRO told us that the outlook for coal companies was, therefore, closely linked to developments in the electricity market. The replacement of coal-fired generators by new gas-fired stations had led to a rapid decline in UK production over the past ten years with significant impact on both coal producers and coal communities; many producers had gone out of business.

12.245. COALPRO referred to information given to us by Ofgem about take-or-pay gas contracts and generation costs. It said that electricity regulators had consistently discriminated against coal, preferring new entrant gas stations despite gas-fired generation costs being considerably higher. The take-or-pay contractual structure of the early CCGT stations had discriminated against coal in the marketplace, resulting in either bids into the Pool at a zero price or bidding inflexibly, which had the same effect. It said that British Gas, the dominant seller in gas supply contracts, had been allowed to be overly restrictive in its commercial dealings. Gas resale had been forbidden and gas generation had continued irrespective of the economics of gas generation against other types within the Pool. In addition, take-or-pay contractual arrangements had meant that some gas-fired stations' incomes had been effectively fixed rather than being influenced by Pool prices. Conversely, in spite of Ofgem's submission to the contrary, recently-built CCGT stations and all new ones had not been supported by such restrictive contracts. COALPRO disputed, therefore, Ofgem's contention that the short-run marginal cost of CCGTs was close to zero. It said that the regulatory authorities had been aware of its concerns about the early take-or-pay contracts for some time, but had failed to respond to the issues raised.

12.246. In COALPRO's opinion Ofgem's assessment of the relative economics of coal and gas plants was unsound. There was, in fact, no obligation under long-term gas supply contracts for any CCGT generator to burn gas on a particular day. On the contrary, there was sufficient flexibility in the system for generators to defer taking gas for a considerable period of time. Ofgem had produced no evidence that some CCGT stations might have over-contracted for gas and, as a result, had effectively been forced to burn contracted gas. COALPRO believed that most CCGT stations had purchased additional supplies of cheaper gas from the spot market. It further suggested that the fuel element of short-run marginal costs for CCGT stations should incorporate the current market value of gas; a zero short-run marginal cost was not economically justifiable and was evidence of significant market distortion.

12.247. COALPRO said that staff costs and environmental constraints were not relevant to high short-run marginal costs for coal plant. Staff costs were fixed in the medium term and so not relevant for short-term comparisons. Environmental constraints centred round SO₂ emissions. Over recent years, the Environment Agency had not constrained company- or plant-specific SO₂ limits and with the impending modification of FGD plant by new owners of coal stations it was unlikely that coal generation would be constrained in the near future. COALPRO said that the coal industry had long argued, as Ofgem now accepted, that an avoidable cost merit order should show coal and gas plant intermingled. With the recent rise in UK market gas prices, coal-fired stations could be expected to become even more competitive in an intermingled merit order. Historically, however, there had been no such intermingling and successive regulators had done nothing to remove the distortions that had allowed gas stations to act in an anti-competitive manner by bidding significantly below their short-run marginal costs.

12.248. COALPRO referred to the DTI White Paper¹ which said that new coal capacity could be brought on stream at between 2.6 and 3.25p/kWh. COALPRO suggested that, at those cost levels, new coal would be reasonably competitive with new gas stations at today's high gas prices and, certainly, more competitive than the early CCGT stations. The principal issue, however, was comparison of costs of existing coal plant with those of new gas stations.

12.249. With regard to the bidding behaviour of CCGT plant, COALPRO did not accept that above-zero priced bids might be justified as reflecting the short-run marginal costs of the plant. Such costs, in COALPRO's opinion, ought to include the price of gas on the gas market.

12.250. COALPRO said that current gas generating costs had been rising in recent years and that the differential between coal and gas plant marginal fuel economics was currently even larger. It referred to the DTI White Paper² which suggested that coal-fired generation was likely to be cheaper at baseload operation than new CCGTs, with the picture becoming more favourable to coal as the load factor fell. COALPRO added that since the report was published the cost of gas had doubled. It was persuaded, too, that at current prices many gas generating stations should be running after cheaper coal stations in the merit order, not before them.

12.251. COALPRO said that the most important considerations in assessing new station generation costs were plant load factor and thermal efficiency. It referred to DTI statistics which, it said, had shown CCGT load factors over the past five years being lower than those assumed by Ofgem. Over the same

¹*Conclusions of The Review of Energy Sources for Power Generation*, DTI, Cm 4071, October 1998 (paragraph 5.33).

²*Ibid.*

period, thermal efficiency for CCGTs, on a gross basis, had averaged just under 49 per cent with baseload operation. COALPRO asserted that thermal efficiency would fall as gas plants moved off baseload operation because they could not maintain combined cycle operation as they started up and ran down. COALPRO concluded that Ofgem had overstated likely new entrant performance and understated new entrant generation costs. It said that Ofgem should concentrate its efforts on ensuring that coal stations, with their lower marginal costs, were run before gas stations. This would minimize generation costs for customers.

Group Representing Other Generators

12.252. The Group Representing Other Generators (GROG) was established in 1990 to represent the interests of those independent generators that did not have their own seat on the Pool's governing Executive Committee. GROG said that its current membership represented more than 20 per cent of the generating capacity of England and Wales and at present it elected two members of the Executive Committee. GROG was currently developing a formal trade association to represent its members under NETA.

12.253. GROG said that it had been surprised that a MALC had been proposed given the new powers being introduced under the Competition Act. It had envisaged that legislation would build on a series of extensive tests with historical precedent and case law being used to determine the concept of dominance. The new condition, on the other hand, would create uncertainty in terms of definition and GROG was concerned that, against this background, layers of regulation and potential interference in the marketplace would be imposed without the definitive knowledge of meaning or interpretation. Given such uncertainty increased costs would follow.

12.254. GROG was equally concerned about the lack of transparency of information. It was unlikely to be involved in the reported private discussions or to benefit from confidential advice. Its members would be taking long-term decisions in a market where other players had been better informed about future prices. GROG, commenting finally on NETA, said that the new arrangements would require players to exploit their market positions in order to work effectively.

Government departments

Department of Trade and Industry

12.255. The DTI said that the Government was committed to the development of competition in the wholesale electricity market, as part of its wider commitment to the development of competition in the electricity sector (and energy as a whole). The completion of NETA was a key element in the Government's energy policy. In the DTI's view, it was important that the lessons from the series of OFFER and Ofgem investigations into manipulation of Pool prices were fully taken into account in finalizing the NETA arrangements.

12.256. A key objective of NETA was to develop trading arrangements that would support and encourage competitive markets at both the wholesale and retail levels. The DTI and the DGES had to ensure that they did not allow the continuation of past practices or, worse, create opportunities for companies to exploit positions of market power (even if these were short-term) that distorted the development of competition and, ultimately, meant that consumers got less benefit from the market changes.

12.257. The DTI said that it was, of course, a major change to move from a compulsory market to a voluntary one. NETA would put in place a radically different set of trading arrangements in which it was expected that the opportunities for price manipulation would be greatly reduced. As a result, however, of some of the special features of electricity trading, particularly the fact that electricity could not be economically stored, any market for electricity would have some features unique to the sector that differentiated it from other commodities markets.

12.258. The DTI believed that in the period immediately after the introduction of NETA generators would still be able to manipulate and abuse the market. A change as significant as the switch to NETA

would require time to bed down. The DTI stressed that the CC's considerations should therefore address not only the run-up to NETA but also the transitional period (about a year) after its introduction. Although there might still be competition issues after that period, the shape of the market would have changed and under NETA there would be mechanisms for dealing with such issues. The DGES would be able to become involved in the rules governing the balancing and settlement mechanisms in a way that he had not been involved in the rules governing the Pool. In the long term, anti-competitive behaviour could be dealt with under general competition legislation, under sector-specific regulation or through the rules governing the balancing and settlement mechanisms.

12.259. The DTI's main concern was that there were features of the Pool as currently constituted that impeded competition in electricity generation. Under NETA, because of the special features of electricity trading, individual generators might initially be in a position to exploit their temporary market power in a way that would have a wide effect on the electricity market, disadvantage consumers and reduce the confidence of market participants in the trading arrangements. Because of these possible adverse effects on the development of a competitive market, the DTI said that it took the DGES's concerns very seriously and fully understood why he had proposed the introduction of the MALC into the licences of AES and British Energy. In its view, the MALC was entirely in line with the DGES's duty to promote competition under the provisions of the Electricity Act. Although it had no view on the specific details of the MALC, the DTI fully supported a condition that sought to deal with the effects of anti-competitive behaviour rather than with specific forms of conduct. Experience suggested that a condition based both on specific conduct and an effects test might fail to prevent the anti-competitive effects. It recognized that the MALC raised difficult and controversial issues, but the DGES had included a provision within it for it to lapse one year after the introduction of NETA unless the CC, following a reference, concluded that the cessation of the provision would operate against the public interest. It was therefore targeted on a limited period in which both the Competition Act and NETA would be bedding down.

12.260. There was a long history of abuse in the Pool and there had been previous attempts to deal with it. It could be argued that there might have been more opportunity for abuse in the past and that the market now had a more competitive structure. However, despite demergers by large generators and plant being sold to new entrants, there was evidence that abuse continued. In the last year there had been two price inquiries by the DGES. Although the market structure was changing, the issues tended to arise in the provision of electricity in daily demand peaks. This meant that, with regard to the potential for anti-competitive behaviour, the market was narrower.

12.261. Asked how easy it would be to apply the MALC, the DTI said it was important that it had the safeguards included in the current proposal. This would make the DGES's thinking transparent, provide an opportunity for those being accused to provide an explanation and allow the issues to be considered by an external body.

12.262. Commenting on what would happen if the licences of AES and British Energy remained unmodified, the DTI said that if the CC found that the modification was not in the public interest, the condition would also fall in other licences. There was no significant difference between those which had accepted the MALC and those which had not. The DTI believed that the DGES would then be unable to deal with anti-competitive behaviour for the remaining life of the Pool and in the transitional period of NETA.

12.263. There were two areas that the DTI was concerned about under NETA—one where there might be manipulation and one where there was a more significant risk of manipulation. The former arose because the DTI envisaged that the companies would be much faster at finding gaps in the market rules and exploiting them than the regulator would be in plugging those gaps, particularly during the transition. Its second concern was in the area of transmission constraints. NETA would initially draw heavily on existing transmission arrangements for the Pool but without some of the safeguards which were inherent in the Pool. This meant that companies would be able to offer large volumes of electricity if they were confident that there would be a constraint. They would, in effect, receive payment to turn their plants down, and thus would be able to manipulate the system. The longer-term solution would be to give companies transmission capacity rights, which Ofgem was proposing to do. That was another complicated reform and although it would make a difference it was not expected to be in place until about a year after the introduction of NETA.

12.264. The DTI said that the NETA proposals were substantially better and more robust than the Pool. More trading would take place bilaterally before real-time electricity production, market rules would be open to change more quickly and greater involvement of the demand side would help to reduce

the scope for market power. The DTI's view was that if, when NETA had bedded down, there remained concerns about anti-competitive behaviour that had not been solved by NETA, the regulator would have to consider other methods of dealing with this. The DTI could understand the generators' concerns if what was being asked for was a licence condition in perpetuity on these issues. If longer-term competition issues arose the DTI did not believe that they should be addressed by the MALC in its present form.

12.265. The DTI did not take the view that the MALC itself would deter new entry and investment. The Government and the regulator had constantly made it clear that they were looking for a more competitive electricity market. If the MALC were not in place and the DTI believed that there were remaining competition issues, it would have to consider with the regulator alternative methods for dealing with them.

12.266. The DTI and the regulator both believed that if there were a choice between the Competition Act and sector-specific regulation, the Competition Act with its appeals procedure was the better option. Indeed it thought that consumers, on whose behalf the regulator was operating, would also prefer this form of regulation. The difficulty was that case law on abuse of dominant position did not relate to the unique features of the electricity market. The DTI accepted that if the regulator relied on the MALC, Competition Act case law could be slower to develop. This was one of the main reasons why the DTI had focused on availability of the MALC only for the transitional period. The DTI stressed that in the longer term it would expect the Competition Act to play the major role.

12.267. The DTI said that it had not received a request from Ofgem for the Secretary of State to exercise his powers in the Utilities Act to make a standard condition relating to market abuse or to the determination of wholesale electricity prices. It noted, however, that Ofgem had stated, in its initial submission to the CC, that it intended to ask the Secretary of State to introduce a market abuse condition as a standard licence condition, subject to the outcome of the CC's inquiry.

12.268. With regard to NETA licence conditions, the DTI confirmed that the Secretary of State had not yet been asked to include a market abuse condition in the conditions prescribed under section 68 of the Utilities Act (ie section 15A of the Electricity Act as amended). The DGES had indicated that he would, if the circumstances demanded, press the Secretary of State to use his powers under section 68 to implement licence conditions necessary to protect markets and customers under NETA. The powers in section 68 could be used for 'facilitating the operation' of NETA. In principle, the DTI believed that this provided vires to make changes to licences after NETA was in place, if the Secretary of State concluded that the changes would facilitate the operation of the new market. Whilst it had no plans to use the power, it was possible that circumstances might arise in which the power would be exercised. In such circumstances, the Secretary of State would want to be sure that the use of the power was imperative for the effective operation of the NETA market, and that there were strong grounds (for example, urgency) for using the section 68 powers in place of the normal licence modification route.

Office of Fair Trading

12.269. The OFT said that it wished to ensure the effective application of the Competition Act, which applied to most sectors of the economy including those with sector-specific regulation. Whilst regulation of sectors such as the utility industries was necessary to the extent that effective competition had not yet been established, the inevitable overlap between the Competition Act and existing sector-specific regulation could lead to a risk of uncertainty for the industry and inconsistency in the competition enforcement regime. The OFT believed that this overlap should be increased by the introduction of a new licence condition only where it was the unavoidable consequence of essential regulation.

12.270. It was important that the concurrent powers of the DGFT and the sector regulators under the Competition Act were applied consistently. For the first time, the OFT and the regulators had strong powers to tackle behaviour that constituted an abuse of a dominant position. The OFT was keen to ensure that, at the beginning of a new competition regime, the introduction of the MALC, which focused on substantial market power, did not cast doubt on the scope and effectiveness of the Competition Act.

12.271. The OFT's views on the overlap between the MALC and the Competition Act are summarized in paragraphs 3.69 to 3.72.

12.272. With regard to the risk of inconsistency and uncertainty, the OFT said that the Competition Act had to be interpreted consistently by all the regulators and itself since they were applying the same law. The CC Appeal Tribunals would ensure that consistency was maintained, as would the requirement on all authorities applying the Competition Act to interpret it in a way that was consistent, so far as possible, with EC competition law.

12.273. By way of contrast, when a regulator applied a licence condition there was no established body of case law to guide him or her on interpretation of the provision. There was also no means of ensuring that a regulator's interpretation would be consistent with the Competition Act and EC competition law. In addition, the statutes under which regulators enforced licence conditions imposed other considerations to be taken into account but these were disappplied when the regulators enforced the Competition Act. The OFT said that, consequently, there was a danger of inconsistency between decisions taken under a licence condition and decisions taken under the Competition Act; a risk that was particularly acute where both a condition and the Act applied to the conduct in question.

12.274. The OFT foresaw a situation where a regulator had a choice of using the Competition Act powers or enforcing a licence condition and where the decision taken at the end of the process could differ depending on the route chosen. It was indeed difficult to see why the MALC was necessary if the potential outcomes were not different. This led to the OFT's concern about uncertainty for the regulated companies, which would have no way of knowing which enforcement route would be chosen. The lack of precedents with a new licence condition would add to the uncertainty.

12.275. Commenting on the suggestion that the MALC could be enforced more quickly than the Competition Act, the OFT said that the Act empowered the DGES to impose interim measures if he had a reasonable suspicion that one of the prohibitions had been infringed and he considered that he needed to act urgently to prevent serious, irreparable damage to a person or category of persons or to protect the public interest. There was a right of appeal to the CC Appeal Tribunals against interim measures directions. In general, the Tribunals aimed to deal with straightforward cases within six months. As an appeal against interim measures directions would raise questions of exceptional urgency, it was likely to be dealt with more quickly. As far as references to the ECJ were concerned, recent rule changes allowed an accelerated procedure to be used where a ruling on a question was a matter of exceptional urgency. In any event, the original decision of the regulator would remain in force unless or until it was suspended by the courts or overturned on appeal.

12.276. The OFT concluded that it was arguable that significant elements of the behaviour that concerned the DGES might be caught by both the MALC and the Competition Act Chapter II prohibition. It was not possible, however, to be definitive about precisely how far the overlap extended and the issue remained as to whether the MALC was necessary to address possible conduct beyond this overlap.

Scottish Executive

12.277. The Scottish Executive said that British Energy was of significant interest to Scottish Ministers and the Executive because it was a major company of strategic importance to the Scottish economy. The long-term future of British Energy's nuclear power stations was also significant in the context of the UK and Scottish Climate Change Programmes. It believed that there was, at first sight, some justification for British Energy's view that competition issues should be dealt with under the Competition Act.

Other regulators

Office for the Regulation of Electricity & Gas (Northern Ireland)

12.278. The Office for the Regulation of Electricity & Gas (Ofreg) said that it was generally recognized that a perfectly competitive market was difficult to achieve even in a market as large as England and Wales. Although the situation faced by the Northern Ireland market differed from the situation in England and Wales, Ofreg sympathized with the aims of the DGES. The privatization arrangements for the Northern Ireland electricity industry had implicitly acknowledged the difficulties in creating competition in generation. The Power Purchase Agreements between Northern Ireland Electricity (NIE) and

independent operators contained an inflation-linked element and formed the wholesale NIE Bulk Supply Tariff (BST). Whilst these contracts were undoubtedly high cost, they served as a price cap.

12.279. Ofreg said that the present Northern Ireland market was a hybrid and was in a state of transition. A new wholesale electricity trading system had been introduced to comply with the European Directive on the creation of an internal market in electricity which allowed a limited amount of direct trading between independent generators and licensed suppliers for sale on to eligible customers. The BST was a ceiling price above which IPPs could not now feasibly charge and to some extent it ensured good behaviour. Ofreg said that the new trading arrangements led it to modify existing generators' licences only to the extent that they were now required to provide separate accounts showing their activities in the eligible market. The situation would change with the advent of the Scottish interconnector, new plant and growing integration of the two Irish electricity markets. Ofreg believed that the BST, by itself, would not then serve as a sufficiently tight price cap to ensure good behaviour.

12.280. In its view, the behaviour of IPPs would become more critical as the market became more liberalized. Since as few as one or two IPPs might dominate the market, Ofreg might require them to accept licence conditions which ensured that they were not able to 'game' the market with impunity. It said that what was clear was that where market conditions did not produce a perfectly competitive market, regulatory intervention in the generation market was essential if customers were to be protected.

12.281. Commenting on our proposed alternative licence condition (see Appendix 2.1, Annex B), Ofreg said that it was sympathetic to the difficulties of using competition law to address market abuse in electricity generation. It continued to support the DGES's proposal for a MALC in generation licences. Electricity generation, by its very nature, required constant vigilance to ensure that generators did not behave unreasonably. Previous rule changes under the Pool had had some success, but had not addressed underlying problems. As with all repeated games, behaviour could change to circumvent the rules while maintaining a detrimental effect on the market. Although our alternative proposal might superficially address certain types of conduct, it would not address adverse effects on consumers and/or on competition. Since it appeared to be a diluted form of the MALC, it would not be an adequate response to the problem. In particular, there was no indication of how our proposed condition would address behaviour under NETA. It appeared that the proposal would fail to produce the lasting solution that the market needed.

Office of Telecommunications

12.282. The Office of Telecommunications (OfTel) commented on the relationship between sector-specific regulation and the Competition Act. It said that undertakings in the telecommunications sector had to comply both with licence conditions and the Competition Act. The Director General of Telecommunications (DGTel) had a duty to enforce a licence breach, but this duty did not apply if he was satisfied that the more appropriate way of proceeding was under the Competition Act. Whether or not it was more appropriate to use the Competition Act in a given case was a matter of discretion. Moreover, in certain circumstances—for example, if he was asked by a party to an interconnection dispute to make a determination—the DGTel was obliged under EC law to use sector-specific regulation and did not have the option of using the Competition Act.

12.283. One of the four outcome-based objectives set out in OfTel's strategy statement *Achieving the Best Deal for Telecoms Consumers* (January 2000) was the prevention of significant anti-competitive practices. In explaining how he proposed to achieve this objective the DGTel had made clear that licence conditions would continue to have an important role. The continued need for sector-specific regulation where there was not effective competition was also recognized by the European Commission in the draft framework for electronic communications and associated services published in July 2000.

12.284. Decisions in individual cases as to whether the DGTel would use the Competition Act as opposed to relying on licence conditions would need to take into account, among other things, the available jurisprudence, the procedures that must be followed under the two regimes, the different remedies that were available and the requirements of existing and emerging EC legislative frameworks.

12.285. OfTel said that the public telecommunications operator licences of all major operators had contained a Fair Trading Condition (FTC) modelled on Articles 81 and 82 of the EC Treaty. The FTC prohibited anti-competitive agreements and abuses of a dominant position. From 1 March 2000 the FTC

had ceased to apply to agreements and conduct that would otherwise be in breach of both the FTC and the Competition Act, since the DGTel believed the Act met the criteria for disapplication of the FTC.

Office of the Director General of Water Services

12.286. The Office of the Director General of Water Services (Ofwat) said that it was not in a position to comment on the specific characteristics of the wholesale electricity market. It could not comment, therefore, on whether a continuation without modification of the provisions of the generation licences of AES and British Energy operated, or might be expected to operate, against the public interest. Since the wording of the MALC followed that used by the Competition Act prohibitions, it believed that the MALC would not be inconsistent with the Act. Furthermore, the disapplication provision contained in the MALC could bring it to an end if it became clear that it duplicated powers available elsewhere.

12.287. Ofwat believed that the fundamental consideration for the CC was whether the DGES had demonstrated that the MALC was needed to address matters that operated, or might be expected to operate, against the public interest. Other issues should not obscure this basic point.

12.288. Commenting on the OFT's concerns about the risk of uncertainty and inconsistency, Ofwat said that Parliament had intended that sector-specific legislation and the Competition Act should be separate regimes, as the Competition Act did not undermine existing sectoral powers. If the existence of partially overlapping, but separate, regimes was not seen as problematic at this general level, it was difficult to see why it should be viewed as such when considering a particular new licence condition.

12.289. Ofwat said that the risk of uncertainty and inconsistency should not be overstated. It was clear to regulated companies that a regulator might be able to investigate particular conduct under the Competition Act or sector-specific powers and that they had to comply with both regimes.

12.290. It was misleading to say that there was no established body of case law to indicate how a licence condition would be interpreted. There were relevant precedents in respect of existing licence conditions. Although by definition there would not at first be specific case law relating to a new licence condition, this was true of all new regulation.

12.291. Ofwat said that although the separate regimes might not analyse particular conduct in exactly the same way, this was not a dangerous consequence of introducing new licence conditions. It reflected instead the fact that the Competition Act might not always afford a regulator sufficient powers to police adequately a particular industry sector. The Act had strengthened regulators' powers without undermining their already existing powers or creating any presumption in favour of the Act where a regulator was satisfied that sector-specific powers were more appropriate.

The Rail Regulator

12.292. The Rail Regulator wrote to us in response to the OFT's submissions (see paragraphs 3.69 to 3.72 and 12.269 to 12.276). He made four main points about the overlap of sector-specific regulation with the Competition Act.

12.293. First, the fact of concurrency was neither post hoc nor an oversight. Parliament had deliberately created two parallel regimes, the sector regulation regimes on the one hand and the Competition Act on the other. In doing so, it gave each sector regulator the discretion to choose which regime to use.

12.294. Secondly, it was accepted that where the behaviour of an undertaking was clearly capable of being dealt with under the Competition Act, it would be hard to demonstrate that the absence of a licence modification which provided a regulator with different powers to deal with the same behaviour would be adverse to the public interest. In that respect there seemed to be a presumption against any reinforcement of the overlap between the different statutory regimes.

12.295. However, it was perfectly legitimate for a regulator to choose to pursue enforcement action rather than to proceed under the Competition Act where he or she judged that the most effective outcome would be cessation of the behaviour in question under terms other than those of a simple fine for the behaviour which had ceased. For example, there were enforcement measures open to the Rail Regulator as an alternative simply to requiring the cessation of the behaviour and a fine (which was very little different from that achieved under the Competition Act). He was able to impose a fine as a non-punitive

means to achieve cessation, structuring the fine as a series of incentive hurdles, if that achieved its purpose more effectively. He was also able to require positive ‘incentive’ action on the part of the licensee to achieve cessation for the same reason. Neither of these enforcement measures was available to him under the Competition Act and either one might be used by him where, taking account of his fundamental statutory duties, it seemed to him to be more appropriate to do so. It was also open to him to seek to introduce licence conditions which carried within them prescriptive measures as to future behaviour in the event of breaches of various kinds.

12.296. The method of enforcement was thus different, for the main part, as between the different regimes: under the Competition Act, enforcement was always ex post, whilst under sector regulation it was capable of being ex ante. This difference could be persuasive in deciding which course of action to adopt, in the very rare circumstances in which an undertaking's behaviour was capable of being dealt with under the different regimes.

12.297. For these reasons, the Rail Regulator believed that the CC should take into account the flexibility of enforcement measures provided by licence conditions and sector statutory provisions.

12.298. Thirdly, the Rail Regulator commented that the Competition Act was much more uncertain in its application than sector-specific legislation. In the case of a licence condition it was often relatively easy to determine whether or not a breach had occurred. It was far more difficult to determine that the behaviour of an undertaking was in breach of Chapter II. The core difficulty was that what could often be identified as abusive market behaviour was not ipso facto behaviour by a dominant undertaking. The Rail Regulator did not accept the OFT's claim that the concept of significant market power was co-extensive with the concept of dominance. The counter-argument adduced by the DGES (which depended centrally on market facts) seemed persuasive.

12.299. The Rail Regulator said that the complexity and volume of the analysis to be undertaken for a Chapter II case, and the length of time needed, suggested that Competition Act proceedings could very well in practice be reserved for the more major cases which raised structural issues or which had industry-wide consequences. In the event of a clear breach of a licence condition, capable of investigation and cure within a short time period, there would have to be compelling reasons other than the possible overlap of legislation for not proceeding under sector-specific legislation.

12.300. Fourthly, the possibility of taking action against an undertaking either under sector-specific legislation or under the Competition Act in no measure undermined the application of competition principles under the Competition Act. The principles to be adhered to in proceeding under the Competition Act were provided for by section 60. The principles to be adhered to in proceeding under a licence condition were provided for in that licence condition, which was itself constrained by the licence in general and its governing statute.

12.301. The Rail Regulator accepted that there was a remote possibility that similar conduct being dealt with by fundamentally different regulatory regimes might on occasion confuse parties subject to regulation. What could not be granted, however, was the implication that the different regimes must be strenuously steered in different directions as a result. Legislation was replete with concurrent measures, and provided that double jeopardy was avoided, there was no a priori reason for supposing that legal confusion would result.

Others

BOC Gases

12.302. BOC Gases (BOC), which operates industrial-gas-producing plants in England and Wales, said that because the process was very energy intensive it was one of the largest industrial electricity customers in Great Britain. It had lobbied for changes in electricity trading agreements and was fully supportive of the implementation of NETA. In its view, Ofgem's case for the introduction of the MALC was rational and well argued. BOC believed that abusive behaviour by some generating companies had kept prices artificially high and prevented it from meeting its objective of purchasing electricity for its British plants at internationally competitive prices. It thought that while the Pool pricing system was still in operation the MALC should be applicable to all generators capable of causing abuse whether or not they had a history of doing so. BOC also believed that because NETA was untried it appeared sensible to

retain the MALC until it was established that true competition and the disciplines of the market and normal competition law were capable of preventing abuse.

Mr Andrew Claxton

12.303. Mr Claxton was the Chief Executive of the Electricity Pool of England and Wales for the five years until April 2000. He provided us with an expansion and clarification of views he had expressed in an interview with *Utility Week* on 20 April 2000.

12.304. Mr Claxton said that the Pool was an entirely mechanistic process based on a set of explicit market rules that determined rights to generate and the payments due. The licensed generators and suppliers were obliged to be signatories to the Pooling and Settlement Agreement (Pool Members). Mr Claxton noted that the Pool had been criticized for being complex and he believed that a source of complexity was that the Pool provided a number of functions: ex ante half-hourly spot prices, unconstrained generation merit order, payments for imbalance and for constrained operation, and settlement. There had been several attempts to simplify the Pool rules, but the interdependent relationships within the Pool meant that a change to address one area might have considerably more adverse consequences in another.

12.305. High prices, in particular anomalous spikes, had been a recurring issue within the Pool. Mr Claxton believed that there were three possible causes:

- (a) the economically rational consequence of supply and demand imbalance;
- (b) manipulation of deficiencies in the Pool rules; and
- (c) manipulation of market power.

12.306. In practice, it was sometimes difficult to distinguish the causes and a tendency had emerged to attribute any high price to manipulation. Over the 18 months to June 2000 the PEC had investigated a number of instances of alleged manipulation, and in some cases had identified deficiencies in the Pool rules and promptly implemented rectifications where it could. Mr Claxton believed that observers generally took the view that most significant opportunities to manipulate deficiencies in the Pool rules had been tried, identified and rectified. High prices might still occur, and it was a competition issue as to whether this was a result of manipulation of market power or economically rational. There had certainly been a decline in market power over the previous year with the divestment of generation plant by National Power and Powergen as well as the full establishment of supply competition.

12.307. Mr Claxton said that the philosophy behind NETA was to minimize the scope of centralized mechanisms, and to devolve to participants the responsibility to agree mutually acceptable outcomes. Prices and the right to generate would depend on bilateral contracts agreed between individual generators and suppliers (and possibly non-physical traders or arbitrageurs). Central, mandatory mechanisms would still be required for resolving imbalances and constrained operation, and for settlement. These would be undertaken under the auspices of the Balancing and Settlement Code which, given its reduced scope, should be less complex than the Pool.

12.308. Mr Claxton said it was to be expected that high prices would still occur and that spikes of the imbalance price might indeed be more volatile as a consequence of the design of NETA. However, the majority of energy would be traded on much less volatile forward contracts. The same basic causes were likely to be at work as were operating in the Pool (see paragraph 12.305). He made the following observations.

12.309. The design of NETA placed additional value, compared with the Pool, on flexibility, ie the ability to increase or decrease generation or load at short notice. As a result, flexible generators might achieve better results under NETA than under the Pool. This would not necessarily be an abuse of market power.

12.310. The opportunity to manipulate the rules depended on the robustness of the design. It was to be expected that some problems would emerge in the early days of NETA and would need to be ironed out. A governance structure that enabled rapid changes to be made to the Balancing and Settlement Code had been established for that purpose.

12.311. Commenting specifically on the MALC, Mr Claxton said that it was needed as a consequence of deficiencies—such as the arrangements for transmission access—in the design of the trading arrangements. He believed that these deficiencies could and would be addressed and that wide-ranging and arbitrary regulatory powers should be unnecessary. In his view, such powers were unwelcome because they increased regulatory risk, which in turn increased barriers to entry and deterred non-physical traders from providing liquidity in the bilateral markets. Mr Claxton said that it was essential to have firm plans to address the known weakness in NETA and achieve the original vision of markets delivering electricity efficiently and securely, with minimal centralized interference and arm's length economic regulation.

EEE Limited

12.312. EEE Limited (EEE) is a niche electricity consultancy, much of whose work is currently carried out outside the UK. The company was set up by Mr Alex Henney, who was once Chairman of the London Electricity Consultative Council and a board member of London Electricity. In 1987, as Chairman of the Centre for Policy Studies Working Group on the Electricity Supply Industry, he published a report proposing the competitive restructuring of the industry including a pool, the first time this concept had been proposed in Great Britain. EEE has advised extensively on electric restructuring in Great Britain and overseas.

12.313. EEE expressed two principal concerns. First, although a MALC might have been justified before the divestments by National Power and Powergen, it was no longer needed. It was an intrusive and heavy-handed condition which was attempting to address a problem that had largely disappeared. Secondly, the proposed condition would confer a considerable power of discretion on the DGES, including an ability to levy fines with apparently no provision for independent appeal. EEE said that it was concerned, also, by a lack of rigour on the part of Ofgem in respect of its performance in some areas, including the design of NETA, the MALC itself and the manner in which it conducted itself in the Mitcham Garden Village issue, misadvising customers then falsifying its witness statements. This gave no confidence in Ofgem's ability to exercise still more powers. EEE said that Ofgem had pointed to international experience as justification for its approach to NETA and the MALC. Such claims were unfounded and had demonstrated a lack of knowledge on Ofgem's part.

12.314. EEE said that the DGES had adopted a simplistic approach to defining and assessing market power. Prior to the divestments by National Power and Powergen, abuse had been relatively easy to identify. With diverse ownership this was no longer the case. EEE suggested that, in an attempt to justify the new condition, the DGES had claimed that electricity was almost unique in scope for abuse of market power. It had exaggerated the extent to which electricity differed from other products and had inflated the occurrence of those periods when it would be possible for generators with diverse ownership to exercise general market power. EEE said that, in its references to the concept of 'close to real time', the DGES had implied a situation with continuous scope for generators to exercise market power. This was most unlikely in a market with diverse ownership of generation, where some generators would have market power when the system was tight but not at other times. EEE was critical, too, that Ofgem should appeal to historical examples of abuse of the Pool and suggest that these might have some bearing on the future. Most, if not all, of the examples cited had been remedied or would be remedied with the introduction of NETA. It added that the DGES's criteria for defining substantial changes in wholesale electricity prices represented only a trivial increase in wholesale price spread over the period of a year. The suggestion that any small plant capable of setting SMP might possess substantial market power and, as a result, manipulate the market, was not justifiable.

12.315. The DGES's analysis of market power as applied to AES and British Energy appeared to suggest that if generators were to increase wholesale prices by a certain amount they would achieve profit. EEE said that, whilst this might be arithmetically correct, there was no evidence to suggest that the hypothesized increase was attainable. According to EEE, Ofgem had provided no substantive evidence that British Energy or AES would be able to exploit market power in either the Pool or NETA within the current structure of the generation industry and, at the same time, profit from the exercise of market power.

12.316. EEE made three further points. First, electricity markets should not be considered as cost constraints; they depended also on market psychology, and on participants' and traders' strategies which might be aimed at moving them. Secondly, the rules of the Balancing Mechanism were intended to reduce the financial benefit from exercising market power. Furthermore, NGC had been set up as a buyer

for the Balancing Mechanism with both the incentive and means to buy power in advance, in this way countering much of the scope that generators had to submit unduly low- or high-priced bids in the short term. Thirdly, new entry and plant divestment had reduced the scope for the exercise of market power by generators. EEE said that it was too early to assess the consequences of the trend to vertical integration. However, with the termination of the early take-or-pay gas contracts there should be increased competitiveness in the market.

12.317. In summary, EEE said that it was already too late for the DGES to need to introduce a MALC. EEE's concern about lack of rigour was of more significance now, given what it saw as Ofgem's increased degree of politicization. Factual accuracy did not appear to be high priority for Ofgem and its analysis was, at times, ill-founded or wrong. EEE was concerned about the greater powers conferred on GEMA by the Utilities Act and said that the regulator's existing powers should be subject to adequate checks and balances without fear of regulatory retribution.

Professor Richard Green

12.318. Professor Green is Professor of Economics at the University of Hull. He was formerly at the University of Cambridge Department of Applied Economics and studied the electricity industry from the run-up to privatization. Professor Green had a period of secondment to OFFER. He has published a number of articles on competition in the industry, three of which he provided to the CC as part of his initial submission.¹

12.319. In his initial submission, Professor Green said that market power could be a problem under both current trading arrangements and NETA. If the proposed licence modification were considered appropriate in the short term, it was likely to be so also in the longer term.

12.320. Professor Green told us that the Pool had always been perceived as being particularly vulnerable to market power because of the manner in which one station's bid set the price for the whole industry. Under NETA the market would be less one-sided with generators attempting to find buyers for their power, and suppliers trying to find sellers to meet demand. In comparing the auction process with the bilateral market Professor Green said that, in the former, a generator would maximize profits by increasing the price asked for a given increment of output until the reduction in time spent generating just offset the higher price received. In the latter, the generator would remain able to assess how much extra power would be offered and how much demand would fall at a given price. A calculation on the marginal selling price would be possible, therefore, and this was unlikely to be reduced by a switch between types of market.

12.321. Professor Green said that under system marginal pricing, the average price of power would be the same as the marginal price. Whether NETA would reduce average prices would depend on infra-marginal prices being lower than prices at the margin. In a single auction, in which generators had to submit bids before knowing the exact level of demand, lower bids were more appropriate for infra-marginal plant. A generator which submitted all its bids at the same level would be exposed to a large reduction in output if demand, and hence the highest accepted price, was lower than expected. The same problem would not exist in a market which was continuous over a period of time. Here, a generator had time to change its offers in response to information about the level of demand and the going rate in the market. It should be expected that, if the market was liquid and well informed, all trading would take place at this going rate. If it were not, it might be the buyers who would be disadvantaged.

12.322. No matter the nature of trading arrangements for electricity, there would always be opportunities for generators to possess and abuse market power. Most companies had capacities in excess of 500 MW and recent evidence had suggested that withdrawal of only this amount of capacity from the system would be enough to effect a significant increase in prices. It would, therefore, be worthwhile for a generator not to continue small plant operations in order to capitalize on that which was operating. Professor Green agreed, in general terms, with Ofgem that generating and overall costs had fallen over the life of the Pool but that these had not been reflected in the margins generators had continued to receive, particularly on their contracts. It was reasonable to conclude, therefore, that generators had earned excessive returns over the period.

¹'Increasing Competition in the British Electricity Spot Market', *The Journal of Industrial Economics*, Volume XLIV, June 1996, 'The Electricity Contract Market in England and Wales', *ibid*, Volume XLVII, March 1999 and *Draining the Pool: the reform of electricity trading in England and Wales*, Energy Policy 27 (1999).

12.323. Professor Green said that market power became a problem when a company, or a small number of companies acting together, had the ability and the incentive to raise prices. Within the Pool, a company could raise the SMP by increasing the price bids of its plants or by changing some other technical parameters of its bids. However, this would usually be effected only through reducing its own output levels. Thus the incentive to raise prices would depend on a company having a sufficient market share and being willing to sacrifice output from one station in order to raise the price paid for its remaining output. Following privatization, both National Power and Powergen had had sufficient market shares to provide an incentive to raise the general level of prices. Regulatory pressure had encouraged plant divestiture and the incentive to raise prices by the major generators had since been reduced. In Professor Green's opinion, the scope for higher prices compared with what a competitive level should be had roughly halved over the past five years. Taking into account other factors such as the contract market, the scope for higher prices was probably much less than half the 1995 level. However, the scope for further divestment was limited since smaller companies, having limited market information, would, as a result, find difficulty in operating. In addition, there was, probably, a minimum size at which running plant made commercial sense.

12.324. Professor Green thought that the market could produce reasonable prices with an equivalent of five equal-sized companies, each with a maximum market share of 20 per cent. This was helped by long-term contracts in circumstances where the purchase of power was being sought over, say, a 15-year period. No buying company would wish to lock into a higher purchase price over a longer period than that being paid by a new entrant. The threat of new entry, therefore, would be an effective bar on long-term contract prices.

12.325. The Pool had had a mixed record. It had been effective in maintaining supplies, providing explanations for prices and ensuring that the cheapest stations ran the most frequently. However, rules had been hard to change when anomalies had been discovered. Professor Green discussed some of the anomalies that had appeared, the consequential rule changes and their effects on the long-term effectiveness of the Pool arrangements. He said that a number of independent academic commentators envisaged a more effective Pool through the direct imposition of changes which would result in many of the opportunities for market abuse being eliminated.

12.326. Professor Green considered that both British Energy and AES had the ability to raise prices and so exercise market power. However, he was not in a position to assess the extent to which this might take place against any relevant test created by the MALC.

12.327. Professor Green said that there would be improvements under NETA, including easier rule changing; however, the cost of trading power would increase and it was possible that dispatch would become less efficient. Under NETA there would be financial penalties for inaccurate calculations of supply and demand including the imposition of unattractive prices. Whilst solutions would become available, these were likely to be found by third parties; the new system would be seen to be introducing problems which had not previously existed. Professor Green was of the opinion that most academics did not favour NETA.

12.328. The change to a two-sided market could increase its demand-side influence. In the core energy market there could be an increase in the number of customers willing to reduce demand with the advent of higher prices and a better way for that to feed through was possible. The extent to which this materialized would depend on the ability of a generator to raise its prices. Professor Green thought that most arbitrage trading would be conducted in the earlier markets. By the time that a trader turned to the Balancing Mechanism, only NGC would be able to trade. It followed that a fairly small proportion of electricity would, in the event, be traded through the Balancing Mechanism. Whilst this mechanism might, as a result, have a limited role in setting market prices, the alternative for those in the market would be to consume and generate without a contract and to pay an imbalance price; this, in turn, could create a negative outcome in financial terms. This meant that traders would use expectations of Balancing Mechanism prices when deciding on their bids elsewhere. Thus, whilst the Balancing Mechanism was a small part of the overall process, it could have a significant effect on final costs.

12.329. Professor Green said that whilst he had not attempted price forecasting, he was of the opinion that NETA would have a negative, if any, impact on price levels compared with the current system. He considered possible strategies employed by generators to achieve market power under the Pool and whether these might change under NETA. Under the former, he suggested, a generator could increase

prices either by reducing capacity or by increasing prices from its own unit. Under NETA, similar strategies could be employed, although the balance of potential for raising prices probably lay more with those companies with different types of plant since these would be less vulnerable to losing market share. Similarly, plants attractive to the Balancing Mechanism and those behind transmission constraints were also likely to have a greater potential to raise prices. There would be price volatility within the Balancing Mechanism though this would possibly be less evident than within the Pool since that arrangement had been inclined to accept an odd bid and apply it to everyone, thus having a significant effect on the wider market. Professor Green considered that, under NETA, there was scope for NGC to complain to the regulator when something appeared to go wrong. However, NGC's role was primarily to balance the system using the cheapest plants available. It could provide information to and invite intervention by Ofgem, but it had neither authority over generators' costs nor the capacity to control market power.

12.330. Professor Green thought that the MALC and the guidance provided by Ofgem on behaviour it sought to deter had been sufficiently well explained. But there were weaknesses in the condition; under NETA, for example, a definition for the term 'reasonable' became more difficult. He accepted the possibility that the condition could develop into an unofficial form of price control. He added that implicit price caps with their lack of price certainties were less desirable than explicit ones and that, in these circumstances, there could be a consequential adverse effect on new entry.

Dr Dieter Helm

12.331. Dr Helm submitted his personal views as a Fellow in Economics at New College, Oxford. He said that the MALC added another substantive layer of sector regulation at a time of significant structural change within the electricity industry. In his opinion, it was an inappropriate mechanism to address market imperfections. The electricity market was unlikely ever to be fully competitive. It was characterized by oligopoly, entry restrictions, vertical integration and limited domestic supply switching. In addition there were substantial externalities, largely of a social and environmental nature, that motivated policy intervention. Whilst most industrial markets shared these imperfections, there was not necessarily a connection between them and detailed sectoral regulation. In fact, the reverse was the norm; the Competition Act provided the basis for limiting abuse of dominance and dealing with anti-competitive behaviour.

12.332. Dr Helm said that the Government had created major obstacles to the development of competition including, notably, protection of the coal industry and failure to liberalize the upstream fuel market. In particular, the gas moratorium had not been fully lifted. There had been numerous interventions in the electricity industry in the 1990s, including plant disposal and a two-year price cap. Interventions had combined structural and conduct regulation. The structural changes had substantially reduced the market share of the two largest fossil-fuel generators and had added to the number of players in the market through divestment and the encouragement of new entry. The changes had made the UK market more diverse than virtually any other European market. Further major structural change was envisaged, with government targets of 10 per cent renewables and 10 GW of CHP capacity by 2010. This was likely to create significant excess capacity. Dr Helm said that the experience of conduct regulation had been less encouraging. The temporary price cap of the mid-1990s was widely regarded as a failure and interventions on plant withdrawal and closures had been particularly ineffective, most significantly because there was no agreed definition by the regulator of the 'right' price (and a noticeable reluctance to give one).

12.333. In Dr Helm's view, the MALC was an implicit price administration regime that needed to address both price level and volatility. This required the regulator to judge the 'right' price. Since Ofgem had not provided a clear definition, individual firms would not know when they were in breach of the MALC. He said that neither the entry price nor avoidable cost plus 1p (both of which definitions Ofgem had offered at different times) provided a sound basis for the implementation of the MALC. He suggested that there was no evidence that UK regulators would be effective in administering prices. Picking price-cap rules had proved difficult enough; picking particular prices would be more complex.

12.334. Dr Helm believed that NETA would create significant new problems, including bilateral contracts between vertically integrated players, without improving on other aspects of the Pool. He added that NETA was just as complex as the Pool and unlikely to be more transparent. NETA would not, in

itself, solve the problems of market power and there was evidence that its supposed advantages were questionable. It was likely to make matters worse in the electricity market.

12.335. Given that the problem of market power would persist after the implementation of NETA it would still need to be addressed. Dr Helm said that there were high costs involved in regulation, and regulators would continue to experience difficulty in second-guessing markets. In normal times, it would be appropriate to rely on further structural pressures on the entry conditions and on the separation of generation from supply. However, current circumstances pointed to further major changes which might render the MALC positively damaging. These included very substantial technical change, a step shift in fossil-fuel prices and major new entry driven by government policy. Their combined effect would have a considerable impact over the next decade. Applying an implicit administered price regime based on the historical avoidable costs of coal and gas could create great distortions as the market adjusted to the emerging conditions.

12.336. In conclusion, Dr Helm suggested that we should:

- (a) find that there was, and would remain, a problem of market power and its potential abuse;
- (b) focus on the government-induced barriers to competition in the coal market and associated obstacles to competition;
- (c) take full account of the costs of more sector conduct regulation;
- (d) reject the MALC as a remedy;
- (e) draw attention to the serious flaws in the design and implementation of NETA;
- (f) recommend that further structural attention be paid to entry and encouraging an open market; and
- (g) rely on the Competition Act as a backstop for conduct regulation.

Professor Frank Wolak

12.337. Professor Wolak is Professor of Economics at Stanford University, USA, and Chairman of the Market Surveillance Committee of the California Independent System Operator. In a submission to us he said that it was unclear whether a wholesale electricity market with the MALC in place would have any greater likelihood of reducing the magnitude of market power exercised than a market without it. In fact, even if the MALC limited the incidence and magnitude of wholesale price spikes, it might not reduce and might even enhance the ability of generators to exercise market power and increase normal average prices.

12.338. Professor Wolak said that the MALC had two major shortcomings. First, the administrative and legal burden of implementing it was likely to be extremely large. Although it was a well-defined academic exercise to compute the magnitude of market power, it was virtually impossible to assign blame to specific participants in the market. There was also the question of whether any entity, including Ofgem, could set a consistent, well-defined boundary between acceptable and unacceptable conduct that held for all market participants. Secondly, the MALC did not cure the underlying market design flaws that increased generators' ability to exercise market power. Consequently there was no guarantee that the extent of market power exercised on an annual basis would be any less if generators were subject to the MALC, even though the frequency and magnitude of price spikes throughout the year might be less.

12.339. Most previous attempts to determine the extent of market power in the wholesale electricity market, whether in England and Wales or elsewhere, had been handicapped by the lack of information on market participants' bids and actual market outcomes, as well as satisfactory estimates of marginal costs of production for all generation owners. A recent paper of which Professor Wolak had been a co-author¹ had emphasized the difficulty in determining which market participant was responsible for deviations from the competitive ideal. For example, assigning blame for market power to the firm that set the

¹*Diagnosing Market Power in California's Restructured Wholesale Electricity Market*, August 2000.

market-clearing price—the marginal bidder—was largely arbitrary. A small change in market demand realization or the bids of other participants could result in virtually the same value for the market-clearing price, with this price being set by any one of a number of market participants.

12.340. Professor Wolak noted that the MALC was very specific about the magnitude and frequency of price increases necessary for Ofgem to determine that a market participant possessed substantial market power, but did not specify how Ofgem would establish that a participant was able unilaterally to cause this magnitude and frequency of market price changes. Despite these difficulties, there was considerable scope for monitoring. One aspect of this was to ensure compliance with market rules. Virtually all the independent system operators and power exchanges in the USA had penalties and sanctions for abuse of market rules. Such abuse was relatively straightforward to monitor and detect because of the factual nature of the violation.

12.341. Because the MALC did not correct the underlying cause of market power, Professor Wolak believed that it might not reduce the extent of market power exercised but might simply lead to a change in the strategies participants used to exercise their power. They might pursue strategies that achieved the same level of average annual prices with a reduced frequency and magnitude of price spikes. There was no guarantee that a market with the MALC would come closer to setting a price equal to the competitive market ideal than a market without it. It was also unclear whether implementing a market rule which reduced the frequency and incidence of price spikes would enhance the efficiency of the wholesale market. Price spikes sent very strong economic signals for loads to reduce their consumption of electricity during these time periods. The major failure of electricity restructuring worldwide was the lack of a sophisticated and active demand side in the market. Professor Wolak said that modifying the market rules to allow for a price-responsive demand to participate in the Pool price-setting process could reduce the incidence of the exercise of market power. He concluded that if there was less market power being exercised the market price would come closer to reflecting the competitive market ideal and the market would be served with less generating capacity. This would allow lower average prices for final customers. Professor Wolak said that the potential benefits of technologies which encouraged price-responsiveness and investment in these technologies would be significantly higher in the wholesale market that allowed price spikes.

12.342. Professor Wolak concluded that implementing rule changes, such as the MALC, that limited the incidence and magnitude of wholesale price spikes might be contrary to the goal of efficiency in the wholesale electricity market. There was no incentive for a price-responsive wholesale demand to develop unless there was a real risk of significant price spikes. Given the market efficiency benefits to a significant fraction of final demand responding to half-hourly wholesale prices, it seemed counterproductive to implement a condition that might not reduce the amount of market power exercised, but only change the manner in which it was exercised. Professor Wolak believed that there were many market rule changes in the Pool design that could significantly limit the exercise of market power. In his view, there seemed little need to implement the MALC.

Professor George Yarrow

12.343. Professor Yarrow is a paid external economic adviser to Ofgem and was actively involved in the preparation and presentation of Ofgem's evidence in this inquiry. He also made personal submissions as an academic, initially in response to citations and interpretations of his work in the submissions of other parties.

12.344. Professor Yarrow said that he fully supported the introduction of the MALC. He also believed that, whilst the positions of substantial market power held by some of the relevant generators might be temporary in nature, substantial market power tended to be recurrent. Despite the fall in concentration in the market, substantial new entry and changes in Pool rules, the potential to abuse substantial market power in the wholesale electricity market had persisted and could be expected to persist in the future.

12.345. The introduction of NETA would encourage further innovations in electricity trading, but its economic success would depend to a considerable extent on the establishment of liquidity and depth in

electricity trading. Abuse and the threat of abuse could be expected to restrict innovation and development, and the damaging effects of such an outcome could persist for a period of years. In Professor Yarrow's view, EFA markets were particularly exposed to these potential problems because of the special arrangements surrounding the physical delivery of the product. He agreed with Ofgem's views on the implications for market power of demand and supply responses, and believed that these views were fully consistent with generally accepted economic analysis.

12.346. Professor Yarrow referred to a debate on the future of electricity market liberalization in the USA following the emergence of supply problems and periods of very high prices in some of the recently deregulated electricity systems. He said that these developments had shown that key issues needed to be addressed if liberalized electricity markets were to work effectively; furthermore they had indicated the nature and reality of the risks run if these issues were not appropriately tackled. There was a danger that, in the event of a loss of public confidence in wholesale electricity markets, quick fixes would be introduced with probable longer-term adverse consequences.

12.347. Professor Yarrow referred, in particular, to California which shared similar features to post-NETA England and Wales in respect of the absence of a mandatory Pool and system energy balancing; he said that there the problems had been particularly severe and the reformed arrangements were in a state of crisis. The biggest single source of the problems in California had been the tight margin between demand and capacity; other issues such as price manipulation and gaming by generators had also been suspected. These problems had been discussed in a joint report to the State Governor.¹ However, a lack of relevant market information from the Independent System Operator and the power exchange meant that it was light on issues of market power. Aspects of the report were directly relevant to our inquiry. Professor Yarrow concluded that if generating companies failed to maximize short-run profits it was because they were either afraid of tighter regulation or were opting for a quiet life; it was not because they feared longer-term competitive responses. Professor Yarrow noted, in particular, that the industry was still influenced by a pre-liberalization business culture where participants tended not to take dynamic pricing initiatives. He believed that NETA would effect change in England and Wales. He commented that former price followers could become price leaders if some major generators were subject to the MALC and others not.

12.348. Internationalization and liberalization were increasing pressures to meet shareholder expectations. There was tension between some of the adverse effects of liberalization, including that of release from the regulatory and cultural constraints on market power, and the positive effects of increased rivalry, particularly through new entry. Competition and consumers would be endangered if the adverse effects predominated, and experience in the USA had led to a re-evaluation of its approach to regulatory reform. In Professor Yarrow's view, there had been too much focus in England and Wales on the theoretical niceties surrounding the MALC. The Californian experience pointed to more important and immediate concerns, including the potential scale of problems if things were to go wrong, the regulatory uncertainties that would arise in those circumstances, and the fact that there was a real risk of things going wrong. He suggested that such issues were highly relevant in the context of NETA. The system in England and Wales, however, enjoyed some advantages over its Californian counterparts, for example its significantly higher capacity level relative to demand, and the forthcoming abandonment of the gas consents policy on the introduction of NETA. The reforms, too, appeared more robust. He pointed, in particular, to the role of the system operator in contracting ahead, relatively free of prescriptive rules, and the MALC itself which, he said, moved beyond the 'rule-change-only' approach favoured in California.

12.349. Professor Yarrow said that two different aspects of economic analysis had influenced, and continued to influence, the legal interpretation of dominance.

12.350. The dominant firm model was an extension of the standard analysis of monopoly that incorporated a fringe of competitive firms. The dominant firm was assumed to be (a) substantially larger than fringe firms and (b) sufficiently large in relation to the size of the market (ie had a sufficiently large market share) to be considered a price-maker. The dominant firm then set the market price level, while other firms were price-takers. From this perspective, dominance was a particular form of market structure.

¹ *California's Options and Challenges—Report to Governor Gray Davis*, Joint Report by the Chairman of the Electricity Oversight Board and the President of the California Public Utilities Commission, August 2000.

12.351. The more general analysis of market power was defined in terms of price-making ability alone and was not, therefore, a concept rigidly tied to a particular market structure: a firm could be a price-maker in circumstances where other firms were also price-makers, and need not be the largest in the market. Market power analysis put its primary emphasis on conduct (ability to influence market prices), although assessment of market structure would generally be useful as part of the overall assessment of the degree of market power.

12.352. For competition policy purposes, sole reliance on structural indicators of dominance would be inappropriate. Although a company might, as a result of having a large market share which was considerably greater than its competitors, be able to set the market price level, it might nevertheless enjoy relatively little market power. For example, if the market demand elasticity was high, and/or the elasticity of supply of the competitive fringe was high, and/or entry threats were very powerful, the (structurally) dominant firm might not be able to set a price substantially in excess of the competitive price. In Professor Yarrow's opinion, this consideration had led to an outcome in which the test for dominance in the application of competition policy had come to rely on three considerations:

- (a) a large market share (structural);
- (b) a market share larger than competitors (structural); and
- (c) the ability to exercise substantial market power (conduct).

12.353. The last of these was, arguably, reflected in ECJ judgements where reference was made to the power of an undertaking to act, to an appreciable extent, independently of competitors. Appreciability, as well as independence, was an important consideration here since, in a market with a single price-setter, that price-setter might not have the power to raise market price much above the competitive level (ie might not have substantial market power).

12.354. The OFT guidelines on assessment of market power explicitly stated that dominance was not equivalent to substantial market power and it seemed clear that, in the current state of the law at least, dominance and substantial market power were different, though related, concepts. Professor Yarrow suggested that in the application of competition law (including in the USA) an increasing weight had been given, over time, to market power considerations and a reducing weight to structural considerations. Thus, in the European context, it was clearly no longer necessary for a finding of dominance that the relevant firm had a much higher market share than all its competitors, such that it alone could influence market price. Nevertheless, so far as Professor Yarrow was aware no single firm had yet been found to be dominant in circumstances where it did not have a larger market share than its rivals. Similarly, findings of dominance had been confined to situations in which the relevant firm had a market share much larger than any of the generators that satisfied the MALC criteria. This reflected continuing reliance on the structural (market share) factors set out above.

12.355. The Competition Act energy guidelines issued by Ofgem and the OFT indicated a further, incremental step in the process of placing more emphasis on market power and less emphasis on market share indicators when assessing dominance (hence the stress in the document on demand and supply elasticities as relevant factors). Professor Yarrow suggested that the extent to which any further shifts were possible would probably be decided via the appeals process and, ultimately, by the ECJ.

12.356. In Professor Yarrow's opinion such an incremental shift in emphasis was wholly different from taking the view that the structural (market share) aspects of dominance could easily be discounted in circumstances where it could be otherwise shown that a company could behave independently. The latter would be a much more radical step, which would fundamentally sever links between the legal concept of dominance and the dominant-firm market structure. This would be a shift that could have major implications far beyond the electricity industry, and these wider implications would need to be considered by the relevant appeals bodies in reaching their conclusions. Attempts to test this would have the following implications.

12.357. If successful, there could be potential concerns about the implications for other sectors of the economy. Demand elasticities, which would become a more critical consideration, were very frequently difficult to measure (the position was much clearer in electricity than in most markets) and competition authorities could potentially claim that they were lower than they actually were, thus greatly increasing the scope for policy intervention across a range of markets.

12.358. There would be, however, only a low probability of success. The process would be protracted, possibly extending over several years. The cost to electricity consumers, compared with alternative courses of action, might run into billions of pounds.

12.359. The second and third of these points were matters of direct relevance to the DGES in considering how best to discharge his statutory duties.

D P B KINGSMILL (*Chairman*)

M CAVE

R H F CROFT

E J SEDDON

A M YOUNG

P A BOYS (*Secretary*)

8 December 2000