Lessons of energy regulation

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1. Introduction

From 1998 to 2003 I was responsible for energy regulation in the UK, first separately for gas and electricity, subsequently for the two on a combined basis; and first with all responsibilities legally given to me as an individual, subsequently as the chairman of the board to whom those responsibilities were given. Both these changes represented significant improvements. From 2003 until September 2008 I was the chairman of the Financial Services Authority, responsible for both the prudential (broadly those issues affecting the soundness of particular institutions) and the conduct of business (broadly those issues affecting consumer protection for those who buy financial products or services) regulation of almost all financial activities in the UK. I make this autobiographical introduction because what follows represents my own observations on the issues which seem worth discussing. They are informed by my own experiences in two very different regulatory circumstances.

2. The issues

The immediate issues in energy regulation were dictated by questions of competition. The original structure of the industry at the time of privatisation had been marked by substantial monopoly power. The national distribution systems for each of gas and electricity were owned by organisations which were also the monopoly providers of gas molecules and of electrons respectively; the local distributors of electricity were the monopoly suppliers to all commercial and domestic customers; associated services (the supply of maintenance and metering) were bundled with these essential supplies. The regulatory questions which clearly arose revolved round how much of what had been monopoly activities could be transferred to the competitive sector (an aim which had been first pursued in the gas industry by attempting to persuade or compel the monopolist to run both a natural monopoly – the distribution system – and to promote competition in supply: unsurprisingly this policy proved unsuccessful; a more successful approach was to require a split between the monopoly and the competitive activities, so that BG was left with a monopoly gas distribution system but no interest in the supply of gas, a task discharged by a separate company: unsurprisingly, this policy with clarity of objective for both company and regulator, proved successful); what price controls, if any, were needed for

the newly competitive supply activities (by 2000 every household in the UK could choose its supplier of gas and electricity); how to promote effective competition between suppliers; and how to carry out efficient price controls of the residual monopoly activities (the previous price control of the gas network had been acrimonious, very largely as a result of the attitude adopted by the company; that of the local electricity distribution networks had been found wanting to an extent that the regulator had been forced to revise it soon after announcing his decisions: neither had advanced the concept of predictable price regulation). In addition there were a number of more technical questions which are encountered in any gas or electricity distribution network: how to price capacity on the networks; and how to price electricity when it was traded wholesale (the original nationalised system for calling capacity onto the grid had essentially been maintained on privatisation; it was far from clear that it was appropriate for the new circumstances). These issues remained despite much impressive work carried out by my two immediate predecessors: Stephen Littlechild in particular should be recognised, quite apart from and in addition to his fundamental contribution in introducing the RPI-X price control system, as having from an early stage in the privatisation process had a clear (and then quite revolutionary) view as to the scope for competition, which has been brought into practice in a way few then thought possible.

In addition to these immediate issues were some wider issues. The original objective of the regulatory organisations for gas and electricity had been to promote competition, with a number of subsidiary requirements such as the protection of those on low incomes or the promotion of energy security which were not difficult to reconcile with that primary objective. But the energy (and the political) worlds had moved on since the original privatisation legislation. In terms of energy, the UK was clearly at some time in the future going to move from being a net exporter of gas to becoming a net importer, as North Sea reserves were depleted; with the opening of the interconnector for gas between the UK and Continental Europe the UK's gas market had become more closely integrated with that of the rest of Europe; and the UK's nuclear generators were approaching the end of their life and the government would therefore not be able to avoid making decisions on the acceptability of building new nuclear plant. Politically, issues other than the cost of electricity were coming to the fore: environmental issues, the treatment of disadvantaged customers, and the special position of combined heat and power were all receiving more attention. The government had responded to this by setting out a long list

of desiderata which they wished the regulator to take into account – without however giving any weighting to the various objectives set out in the list, and thereby not avoiding the need for the regulator to make judgments between items on the list, some of those items being mutually inconsistent.

3. The lessons

The first lesson I would draw from this description of the issues was the predominant importance of structural questions rather than questions of behaviour. Because the structure of the industry was reorganised so as to eliminate the conflicts of interest that were inherent in the same commercial organisation both managing the network and providing the energy transported over that network (by itself and by competitors – competitors which the network owner had commercial incentives to disadvantage) it was no longer necessary to impose a machinery of controls over the behaviour of the network company, for the simple reason that, once the network company's business was confined to the efficient provision of network services, it was indifferent as to who was using those services. By this structural change, not only was a necessary condition for supply competition created – equal opportunity for all suppliers, whether established market participants or new entrants – but also there was a major simplification in the practice of regulation. No longer was it necessary to establish a raft of behavioural rules governing the network company to manage the conflict of interests inherent in the combination of being both monopoly network owner and competing supplier. The structural change very largely eliminated the underlying conflict. There were also advantages that accrued to the previous monopolist: it now had commercial objectives which were clearer, managerial clarity of objective, and the opportunity to procure capital structures which were better suited for the separate network and supply businesses. It is an irony of history that the share price performance of the two separate companies was markedly superior to that of the previous combined company which had argued so hard, so long and – ultimately – so unsuccessfully against an outcome that proved better for it than the status quo which it had attempted to preserve.

There is an interesting contrast between the emphasis on structural change in energy, which has allowed regulation to withdraw from many aspects of behavioural regulation, and the experience in financial services, where no such structural clarity has been possible. Financial services are characterised by embedded conflicts of interest, obvious in any organisation which acts as

both agent and principal, which can be managed, but for the most part cannot be eliminated. Because of this, financial regulation has to become involved with many aspects of behaviour: the detailed rules governing when orders are filled, and in which order; the relationship between research conducted by a firm and the underwriting that the firm takes on; the remuneration practices for research analysts in both brokers and in rating agencies are obvious examples. A striking lesson of energy regulation is the power and the simplifying nature of structural rather than behavioural regulation.

The second lesson I would draw is also general in nature, and relates to the need for clarity of objective for the regulatory organisation. There is a tendency for governments to expect the regulators which they have established to move their objectives in the light of the changing political agenda, or to expand the range of issues which the regulator is expected to decide. I think all concerned have to be wary about this tendency. There was good reason to believe that Ofgem was properly constituted to take decisions, subject to a careful consultation process and subject to challenge by those affected by the decisions, on a range of issues – the appropriate level of price controls for the residual monopoly activities, the correct price incentives to promote economic siting of generation plant, the pricing mechanism for pipeline capacity in gas or for wholesale electricity trading, the need for responsible controls over the sales process as competition was rolled out to all retail customers. But there are many other important energy questions on which Ofgem was not qualified to decide, since these questions involved issues which required judgments which were essentially political – the judgment, for instance, on whether nuclear energy represented a safe and environmentally clean source of energy or a dangerous and on a longer scale deeply polluting source, or the wider question of what price should be ascribed to carbon creation as a damaging by-product of energy generation. Ofgem could, and did, help promote debate on those and other issues; but it would have taken it both beyond its competence and beyond its legitimacy to have set out to decide those issues, under the legislation that then existed governing its activities. To take this position is not to diminish the importance of those questions – quite the contrary. But it is to recognise that a regulatory organisation should have carefully defined and hence limited powers, and that it is important to stay strictly within those powers.

There were, of course, a number of issues within the competence of Ofgem which had an important bearing on the wider issues. The type of meter either encouraged or mandated (the decision as to whether encouragement or definition being itself an important decision) would have significant implications both for micro generation, since there was the need to provide an efficient incentive for exporting energy from micro generators back to the grid, and more generally for encouraging efficient use of household appliances (how, for example, could households be encouraged to use appliances like dishwashers and washing machines at time of low electricity consumption and thus reduce peak demand; and how could manufacturers of those appliances be encouraged to incorporate technology to make this possible). A change to smaller generators using natural sources of energy, whether wind or water, would clearly have fundamental implications for the national and local electricity distribution networks, which future price controls for those networks would have to make allowance for. And the correct pricing signals, crucially incorporating recognition of the transmission losses associated with transporting electrons, could make a substantial difference to the overall efficiency of the system. All these were proper issues for Ofgem to consider. But they fall short of Ofgem seeking to decide wider questions – sometimes to the frustration of politicians who found it difficult that an organisation did not move beyond those issues which lay within its responsibilities laid down by Parliament.

The third lesson I would draw from the UK experience in energy regulation is the necessary and increasing interaction between energy regulation as a specific activity and the generality of competition policy. Once the supply of both electricity and gas had been established as competitive activities, the justification for specific price controls over the end prices charged to customers fell away, Ofgem withdrew from specific end consumer price controls in 2002. The justification for this decision was clear: the supply of energy to end consumers had become a contestable activity; and competition was a reality, best evidenced by the scale of switching between suppliers (in any week, some 100,000 retail customers switch their energy suppliers). It was relatively easy to compare prices (the anticompetitive issues of an excess of detailed tariffs, so important an issue in the telecommunications market, was a minor problem in energy, where the price per therm or per kwh was a simple measure). The product was in many ways the ultimately fungible product. These issues, as the comparison with telecommunications illustrates, are classic competition policy issues. So too is the residual question, important in any market and particularly so in a

market with a background of technical cooperation and a common shared history, of whether collusion between suppliers is a temptation which all suppliers have succeeded in resisting – a question which remains, as always, to be investigated. But the general point is the increasing importance of general competition policy as sector-specific regulation becomes less suitable. There is a long-term question which will need answering as to whether the residual industry specific duties of Ofgem (or any other regulatory organisation which has succeeded in moving the regulated industry towards competition) are sufficient to justify the continuing existence of the industry regulator, or whether the residual responsibilities should fall to the competition authority instead.

The justification, of course, for a separate energy regulator lies in the extent to which there are either administrative or technical reasons which make a degree of specialisation efficient. Both considerations apply in energy. Administratively there is the existence of energy regulators in most member states, and the ability to develop European policy through them, and through the activities of CEER. At a time of increasing interdependence between countries for energy, this is a significant advantage. There are some technical questions which would benefit greatly from a common European approach. The development of a competitive UK market for gas and electricity will be hindered while the predominant supply of gas comes from or across Continental markets which have a more dirigiste approach to energy supply; the question of network capacity in a country which is an important intermediate between the suppliers and the users of either gas or electricity (Belgium is the obvious example) is difficult to answer on a national basis alone; the treatment of interconnectors between countries – and, indeed, the question of why interconnectors should be regarded as a special case rather than as part of a general network system – depend on their being a generally accepted and agreed set of principles for the pricing of capacity. All these – and other – questions demand answers on a European, rather than a separate national, basis. The increasing interaction between national energy regulators which was a feature of my own experience at Ofgem (when CEER was established with Jorge Vasconcelos as its first chairman), and which has subsequently been substantially expanded through the more formal recognition of CEER within the legal and administrative panoply of the EU, is a necessary and beneficial development, made possible by the existence of specialised energy regulators. As such, the development, and the institutions which make it possible, are to be welcomed.

But we should also recognise a danger in the development. Concentrating on energy expertise inevitably tends to move the issues under discussion and the decisions made away from important general questions to those which are specific to energy. It inevitable tends to lead to less attention being paid to the more fundamental questions of whether, and if so how, to apply general principles of competition and market economics to energy markets. Institutions which are industry specific inevitably look on their industries as being special. In one sense, this is obviously true: the issues in energy, telecommunications, and transport are all at one level *sui generis*, and there are benefits from considering them as particular industry problems. But at another level, there is a cost in regarding each industry as special, since it encourages specific analyses which reflect established practices and embedded interests; it fails to acknowledge the benefits which accrue from the more general power of competitive markets. The last lesson I would draw from the UK experience is therefore best posed as a question: how do we best combine the advantages of expertise and administrative convenience which are derived from specialised energy regulators with the more general recognition of the power of competitive markets? How do we prevent special interests dominating to the disadvantage of more general issues?