



‘We are all managers now’: Managerialism and professional engineering in UK electricity utilities

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Abstract

This article investigates the institutional changes that took place in the British Electricity Supply Industry in the period following the sector’s privatisation. The post-war nationalisations were underpinned by an ideology of technocracy – the rationale being that State owned industry should be run by State employed experts. In the case of the Electricity Supply Industry, overseeing the industry as a whole were Treasury utility economists, responsible for macro planning and the governance of the industry. The electricity boards themselves were dominated by professional engineers – who were charged with the internal functioning of the respective organizations. This meant a *loose coupling* between the two dominant groups, who as a result were able to inhabit semi-autonomous spheres. The establishment of the Regulatory structure following privatisation, however, marked a shift away from public treasury style economics. The economists were joined by management accountants in what amounted to a *hybridisation* of economics and management accounting. Whereas under nationalisation the dominant groups – economists and engineers – occupied semi-autonomous spheres, in the privatised context there was the interpenetration of accounting and economics into the sphere of engineering. This process saw the earlier extant dualism replaced by monism. It was actioned through the obligatory passage point of the regulatory review which ensured a tight coupling of the external industry environment and the internal work organisation.

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Introduction

This article investigates the organizational changes that took place in the British Electricity Supply Industry in the period following the sector’s privatisation. The structural changes to the

industry were accompanied by a hostility among many of the powerful new stakeholders – such as City Investment funds, large Accounting Firms, Management Consultants and the Regulator – to the industry, especially to its nationalised traditions. More specifically, many of the new stakeholders regarded the centrality of professional engineering as an anachronism. The consequence of this hostility was to de-legitimate the past and create the conditions for managerialism to rise and

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carve out jurisdictional control over a new space within Regional Electricity Companies.

This article is a study of the way in which ‘managerialism’ was promoted, embraced and subsequently came to challenge and ultimately displace the extant mode and logic of organization – that of professional engineering. We argue that managerialism is an ‘institutional model’ which can be thought of as diffusing within and between organizational fields (Brunsson & Sahlin-Andersson, 2000). We explore the changes that took place in the sector through the analysis of CoastElectric, one of the twelve regional electricity companies in the UK. We will analyse the organization as responsive to economic and political pressures and institutional models in its field, and will employ the concepts of tight and loose coupling for this purpose.

Managerialism

The rise of managerialism is one of the most notable features of the contemporary organizational world: it now pervades both the public and private sector alike (Clarke & Newman, 1997; Pollitt, 1993). We argue that managerialism should not be conflated – but has an elective affinity – with the New Right programme of Government associated with Margaret Thatcher in the UK and Ronald Reagan in the US. Throughout the 1980s and 1990s it then diffused throughout the Western world (Djelic & Quack, 2003; Sahlin-Andersson & Engwall, 2002; Shenhav, 1999). Turning then to the content of managerialism, at its core it embraces notions of ‘excellence’, ‘customer satisfaction’, ‘leadership’ and ‘adding value’. More concretely, initiatives such as Activity Based Costing, Total Quality Management, Business Process ReEngineering, Enterprise Resource Planning and Knowledge Management are manifestations of managerialism (Abrahamson, 1991, 1996; Carter & Mueller, 2002; Clarke & Newman, 1997). Managerialism can be seen as a cultural, economic and political project which generates influential blueprints but, ultimately, legitimates itself through narrow performance measures:

“The experience of leading and managing organizations in general has come to be regarded as an important career qualification,

more valuable than experience within the practical field of the public service concerned.” (Brunsson & Sahlin-Andersson, 2000, p. 725).

The reasons that organizations adopt managerialism are broad-ranging. Some authors have emphasised that ‘hard stimuli’, such as financial pressures, act as a trigger for the adoption of new techniques. For instance, Sherer and Lee (2002) have concluded that ‘organizations facing resource scarcities will seek to be more innovative in ways that allow them to make use of alternative resources’ (Sherer & Lee, 2002, p. 103). Yet it is important to avoid privileging such ‘hard stimuli’ or resource dependencies, as they are the outcome of a complex set of symbolic constructions (Burchell, Clubb, & Hopwood, 1985; Hopwood & Miller, 1994; Macintosh, 2002). By integrating the resource dependency dimension with a broader institutional framework DiMaggio and Powell (1983) argued that organizations copy practices from prestigious organizations in order to be regarded as legitimate by powerful stakeholders. This paper seeks to analyse the shift from a dualist economics-plus-engineering arrangement to a monist managerialist logic by using a UK utility company in way of illustration.

In the remainder, this paper is structured as follows: section two presents the external arena and the shift away from dualism; section three provides the internal arena and implications for work organisation; while section four presents our conclusions and the research implications of the analysis.

The external arena and the shift away from dualism

CoastElectric¹ was privatised along with the other eleven UK electricity boards in November

¹ This paper draws on longitudinal research (1992–1998) into the changes that took place in CoastElectric, a pseudonym for a British Regional Electricity Company. The research comprised of in-depth interviews, use of company documents and the observation of company meetings. The research involved talking to staff at all levels of the organization. For the purposes of this article use was made of 75 interviews with senior management and professional engineers. The research was processual (Langley, 1999) in that it studied the changes as they happened. Also see our data display in Appendix 1.

1990. CoastElectric's formation in the late 1940s was part of the wave of nationalisations that were executed by the Attlee Government in their post-war programme of reform. This marked part of the UK's brief dalliance with corporatism. The nationalisation of the electricity supply industry, unlike others such as the creation of the National Health Service (Foot & Brivati, 1997), was at the time wholly uncontroversial: there was a broad consensus that the only plausible means of creating the necessary Electricity Distribution Network was through State intervention. This was a point that had been made twenty years before in the 1926 MacGowan report (Morgan, 1984) commissioned by the Government of the day. Such thinking highlighted the efficacy of both State Planning and State Employed Experts (Giddens, 1991).

Fabian-style technocratic ideology together with the physical and functional demands of creating an electricity distribution network accorded prominence to professional engineering. From 1948 to 1990, CoastElectric was remarkable for its dualist qualities: it was part 'engineering' organization that experienced very little engagement with the broader social world, *especially the world of management thought*. CoastElectric was subject to governance by the Electricity Council which was the regulatory body overseeing the industry. The Electricity Council used models of economic forecasting which achieved their zenith of respectability in the late 1960s/early 1970s.

The dominance of professional engineers was manifested through their monopoly over managerial positions – in CoastElectric's 42-year history only one non-engineer had ever been a senior manager. This was reinforced by managerial positions actually being described in engineering terms – for instance, a regional manager was known as a chief engineer. The distinction between engineer and non-engineer was rigid within CoastElectric and was strictly policed in both technical and symbolic terms. Technical distinctions amounted to only engineers being able to undertake particular tasks such as the planning, designing and checking of technical work. The dominance of engineers extended to the control of both the decision making premises and processes within CoastElectric. In this sense, we would argue that engineers in Coast-

Electric enjoyed full professional jurisdiction (Abbott, 1988) over their domain. Such dominance was reflected in symbolic terms, where the label engineer was jealously guarded such that it could only be used by those who were professionally qualified.

How was the dominance of the engineers sustained over time? The answer can be approached by reflecting on the founding conditions (Pettigrew, 1979) of the organization: it was formed from the myriad of small-scale municipal and private sector electricity companies in the region. The State bestowed legitimacy on a codified body of knowledge, so that Electricity Boards were to be run by professional engineers. The technical rationale being quite simply that to run an electricity board it was taken as axiomatic that electrical engineers were required in senior management, which was far from typical for UK engineering as a whole (Smith & Whalley, 1995). The physical challenge of constructing an electricity distribution network combined with the huge expansion of demand for electricity (demand doubled every seven years during the period 1948–1970 in CoastElectric's region) were factors that were to legitimate further the apparent 'naturalness' of the electrical engineers' hegemony. The engineers' dominance was reinforced by relatively modest financial expectations (typically 6% return on capital employed). Because such targets were comfortably attained by the organization, there was a loose coupling between the external environment's financial expectations and internal work organisation choices – a 'dual' structure. CoastElectric's engineers were loosely coupled to the economists – such as Ralph Turvey – that sat on the Electricity Council and formulated public finance strategy. The loose coupling was cemented through the readily achievable financial targets and underpinned by an Alchian logic, which held that electricity boards were most efficiently run by engineers by virtue of their knowledge and expertise in the area. There was an *economics-based* justification for leaving the engineering sphere to itself which supported a culture of 'non-interference'. Possessing engineering expertise helped in achieving "economies... derived from learning and experience."

(Turvey, 1969, p. 285) This is a core point for the argument that follows.

Because financial considerations did *not* tightly constrain work organisation choices, CoastElectric could then train far more engineers than it actually required: on qualification, there was a competition for jobs among the trainees, which served to reinforce the idea that engineers who remained in CoastElectric were '*special*'. Why should we be surprised by the engineers' dominance of CoastElectric? This requires us to reflect upon the status of different professional groups in societies. In the UK, the legal and medical professions are quintessential examples of successful professional projects that have attained both juridical warrant and cultural legitimacy (Abbott, 1988; Freidson, 2001; MacDonald, 1995). In contrast, Smith (1987) has characterised British engineering as being ill-defined, lacking a powerful professional body and as being far from an obvious route into senior management. This situation for engineers is societally specific: in Germany, for instance, engineering is a prestigious and carefully protected profession (Lee & Smith, 1992); in France, the Grand Ecole system has produced a powerful engineering elite (Lane, 1989); while in the United States engineering became synonymous with management in the early part of the twentieth century (Noble, 1977). The prestige attached to the engineers within CoastElectric, and in the Electricity Supply Industry more generally, marked it out as a sector apart within the UK business system (Carter & Crowther, 2000; O'Connell Davidson, 1994).

Sociologists using Weberian categories have highlighted the pivotal role played by the State in granting professional autonomy (Evetts, 2003; MacDonald, 1995; Murphy, 1983, 1988). By implication, the removal of State support for a professional project might have far reaching implications for its sustainability. While the jurisdiction of professional engineering within CoastElectric appeared to be complete, it is also clear that the standing conditions of this dominance relied, among other things, on State sponsorship for the maintenance of its professional power. An elective affinity existed between the state support for professional engineering in CoastElectric and

the internal organizational mechanisms that reproduced the dominance of the organization by professional engineers: the organization was both defined and dominated by professional engineers in an environment sheltered from many commercial and financial pressures: the external arena was one of economic forecasting and modest financial expectations, the internal arena of work organisation was decided by engineering considerations. And one of the striking features about the engineers within CoastElectric was the extent to which their world had been sealed hermetically around the concerns of maintaining the electricity distribution network. Changes to this support for professional engineering would result in new ideas entering the organization that would ultimately expose the vulnerability of engineering. The next section will address the changes that took place in the sector from the early 1980s onwards.

DiMaggio and Powell (1983, p. 148) asserted that "Once a field becomes well established ... there is an inexorable push towards homogeneity". While the history of electricity utilities reflects such homogeneity since their formation by the Attlee Government's nationalization programme, the Thatcherite dismantling of the post war settlement was to have dramatic effects. In general terms, Thatcherism established a climate of hostility towards nationalised industries: in the 1980s, Margaret Thatcher argued that 'the two great problems of the British economy are the monopoly nationalised industries and the Trade Unions' (cited in Young, 1990, p. 207). More concretely, the Thatcher administration embarked upon privatising the Electricity Supply industry, which aimed to reduce costs and improve customer service through opening the sector up to the 'market'. Privatisation marked an epochal shift for the Electricity Supply Industry. As a political project the New Right has been hostile (Reed, 1996) in general to the organized professions. This has especially been the case with State sponsored professionals such as teachers, social workers and in our case utility engineers. The source of the hostility of both managerialism and the New Right to the professions is through the notion that professions, by way of

their internal governance, act as a fetter on the free market, and as such are the ideological enemy of the enterprise culture (Young, 1990). It is useful to reflect on Fligstein's (1991) position:

[The state can] "alter the environment more profoundly and systematically than other organizations ... Sometimes the actions of the state provide shocks to the system that bring about unexpected consequences." (p. 314)

Fligstein's point is especially relevant for our purposes as, from 1979 onwards, the state gradually withdrew its support for engineers' project of professionalisation. Indeed, Crouch and Marquand (1993, p. 140-1) refer to a "seismic shift in the balance of power between finance and industry" in favour of finance after 1979 – this played out at societal as well as organisational level. As from 1979 the State's endorsement of professional jurisdiction gradually disappeared, there were serious ripple effects running through the organizational field: as we will see by the time we reach the mid 1990s, the work organisation was no longer buffered from external finance. For our purposes, it is crucial to analyze which strategic responses (Oliver, 1991) such external shocks elicit at both field and organisational level. This is what we plan to do in the sections that follow. More specifically, we shall turn to the role played by the Regulator, in the external environment, and the management of CoastElectric in the internal environment.

Regulator. Integral to the privatisation of the Electricity Supply Industry was the establishment of the Office of Electricity Regulation (OFFER), a regulation body comprising of some two hundred employees and a budget that rose to 23 million pounds per year (Littlechild, 1999). The establishment of OFFER was more than merely shifting Treasury economists from the 'public finance' reviews to a body that would conduct a similar process with the newly privatised Electricity Supply Industry. Looking at the make-up of OFFER itself, accountants were playing important roles which marked a rupture with public finance economics.

This was presided over by Professor Stephen Littlechild, a monetarist economist, who was a leading figure in the theorisation of the regulation of privatised industries (Littlechild, 1983). Littlechild had written numerous articles and public discussion documents on Regulation. He could be characterised plausibly as an '*organic intellectual*' for privatisation. The appointment of Professor Littlechild was in many respects a response to criticisms directed at previous privatisations – not on ideological grounds, but instead with regard to their failure to deliver the expected 'efficiency' gains (Shaoul, 1997a, 1997b). Previous privatisations had been criticised for simply delivering a natural monopoly to the private sector. Some accounting scholars have suggested that the major beneficiaries of such initiatives have been shareholders (Arnold & Cooper, 1999; Shaoul, 1997a, 1997b). These factors made it incumbent upon Professor Littlechild to ensure that the changes to the sector itself were deemed legitimate by a variety of stakeholders, but also, to ensure that his governance was viewed as providing effective and robust regulation. The hands-on regulation provided by OFFER was in sharp contrast to the previous regulatory regime. While OFFER was run by an economist, the scope of its activity was far more akin to management accounting as is seen through the expansion of measurable concepts such as the Guaranteed Standards of Service.

Regulation was of course relational. The dangers for the regulator were threefold: first, that too stringent price cuts would have injurious consequences on the RECs actually being able to perform their service to customers; second, that regulation would be regarded as too lax and lead to the undermining of the entire rationale for privatisation; third, relations between the regulator and the RECs would become acrimonious and unworkable. As Turvey (2003) argued, for the regulator to get the targets right, intensive effort is required to check upon the justifiability of firm's expenditure forecasts – consultants could be used to evaluate such forecasts. The experiences of British Gas were a precedent for this outcome, where decisions made by Claire Spottiswoode, the regulator, were constantly subject to legal challenge. For

obvious reasons the Regulator was keen to avoid these difficulties.

The problems with previous privatisations was attributed in part to lax Regulatory regimes; it was also widely argued that ‘Regulatory Capture’ had occurred, whereby the regulator was reliant on the regulated companies for all the necessary information and data. It was against this backdrop that Professor Littlechild set about regulating the Electricity Supply Industry. Analysts expected Littlechild to preside over the most academically robust and practically effective regulatory regime seen in the world to date. It was to be the zenith of regulatory practice. For the purposes of this paper there were three key aspects to his regulatory framework: first, the price reviews; second, the construction of a competitive market for electricity supply; and, third, the guaranteed standards of service. Given the argument we are advancing in this paper it is important to consider the different aspects of the Electricity Regulator’s activities.

Price reviews. Turning first to the price reviews, the objective of the regulator was to oversee greater ‘efficiency’ in the Electricity Supply Industry. Mindful that around 80% (Westlake & Beckett, 1995) of Regional Electricity Company activities were characterised by monopoly conditions, the Regulator sought to emulate market conditions, this was carried out through price reviews. The first price review of the RECs took place in July 1993, with the policies taking effect the following April. The review attempted to introduce greater efficiency to the controllable costs of the Regional Electricity Companies. The options open to the Regulator were: first, implement a one-off price reduction; second, introduce a year-on-year price reduction through the RPI-x formula, which would see prices increasing at lower than the rate of inflation; or, third, employ a combination of the two methods. Stephen Littlechild opted for the latter, delivering a one-off price cut in the first year, to be followed by a year-on-year RPI-2% cut.

When Yorkshire Power used £500 million of reserves to ‘buy back’ its shares from stakeholders

in order to defend itself against a hostile takeover, the Regulator was under pressure to impose more stringent cuts upon the Regional Electricity Companies. The corollary was as one CoastElectric Regulatory Manager put it in a written response:

‘He [Littlechild] has, of course had two bites at the cherry. Initially, he went for a one-off price cut in the first year, followed by an X of -2% for the remaining four years. In his ‘second look’, he imposed a further price cut in the second year and made $X = -3\%$ for the remaining three until the next review’

The impact of this ‘second look’ review upon CoastElectric was that whereas under the initial proposals the organization was charged with delivering a price reduction of 6.5% over five years, this was now increased to 9.3%. To put this regulatory review into context, it took British Telecom ten years and several regulatory reviews to reach a position the RECs found themselves in after four years. In studying privatised utilities similar to CoastElectric, Shaoul (1997a, 1997b) has highlighted the way in which through controlling the amounts by which costs and prices could increase, the actions of the Regulator were important in shaping behaviours of the utilities. In the case of CoastElectric this led to an intense period of decision making where a variety of strategic initiatives and programmes of managerialist change were embarked upon. While the provinces of open competition remained comparatively limited, this was in no way reflected in, nor matched by, the discourse or practice of either the Regulator or of CoastElectric.

Let us recap and apply our own analytical categories: The post-war nationalisations were underpinned by an ideology of technocracy. The rationale was that State owned industry should be run by State employed experts. In the case of the Electricity Supply Industry this led to the creation of two powerful groups of State experts. Overseeing the industry as a whole were Treasury economists, responsible for macro planning and the governance of the industry. The electricity boards themselves were dominated by professional engi-

neers – who were charged with the internal functioning of the respective organizations.

These ‘intellectual specializations’ (Freidson, 2001, pp. 21–22) created a dualism in the Electricity Supply Industry, which led to engineers and economists enjoying different zones of influence. While the worlds of the economists and engineers met through the obligatory passage point of the public finance reviews, the targets were easily achievable. This led to a *loose coupling* between the two dominant groups, who as a result were able to inhabit semi-autonomous spheres.

The establishment of the Regulatory structure following privatisation marked a shift away from public treasury style economics. A heavy contingent of economics remained through the RPI-x funding mechanism and through the leadership of Professor Stephen Littlechild – a leading economist and theoretician of privatisation. The economists were joined by management accountants in what amounted to a hybridisation of economics and management accounting. Whereas under nationalisation the dominant groups – economists and engineers – occupied semi-autonomous spheres, in the privatised context there was the interpenetration of accounting and economics into the sphere of engineering. This process saw the earlier extant dualism replaced by monism. It was actioned through the obligatory passage point of the regulatory review which ensured a tight coupling of the external industry environment and the internal work organisation.

The hybridisation of economics with management accounting was a notable development in the governance of the industry. The regulatory reviews, which represented the sophisticated operationalisation of monetarist economic theories, were accompanied by a panoply of contemporary management accounting techniques. In the Regulator’s quest to improve customer service, sixteen performance standards (Guaranteed Standards of Service) were instituted. These standards recorded the performance of the RECs, they also shaped the orientation of the organizations. The attraction of the standards to the Regulator is that they ren-

dered the RECs knowable, calculable and comparable (Turvey, 2005, p. 16).

The hybridisation of economics and management accounting is seen clearly through the organizational response to the Regulatory reviews. Activity Based Costing – *the* fashionable accounting technique in the early 1990s – allowed CoastElectric to calculate the costs of many of its operations. For instance, ABC allowed the organization to calculate the cost of numerous engineering tasks, as well as more peripheral tasks such as meter reading. For an organization charged with reducing costs such a technology held considerable promise. The fusion of management accounting and economics also provided for the creation of ‘market rates’ for different tasks. This served to legitimate the downward pressure on costs and wages, while simultaneously justifying the large increases in remuneration enjoyed by executives in the organization.

The passages above highlight the nature of the resource dependencies that were being established between the Regulator and the Regional Electricity Companies. In the case of capital intensive privatised utilities, Shaoul has suggested that ‘the abnormally low share of value going to labour means reductions in employment costs have relatively little effect’ (1997a: p. 501). This revelation did little to dampen the utilities’ enthusiasm for cutting labour costs. The price reviews set the general context in which the regional electricity companies were operating: indeed, external expectations now translated directly into internal action. One senior manager noted:

‘All the directors were agreed that we had to change, the thing was what to change?’

CoastElectric adopted a Total Quality Management initiative. The Chairman explained that this was a means of ‘delivering improved services and reduced costs’. It is worth remembering that at the time TQM was regarded as being at the very zenith of management thought (Carter & Mueller, 2002; Mueller & Carter, 2005). The adoption of the TQM initiative was a means of conveying positive messages about CoastElectric to the Regulator.

There was constant communication taking place between the Regulator and the RECs, so it is probable that any major managerial initiative met with the approval of the Regulator.

In contrast to previous regulatory regimes, Professor Littlechild assumed a leadership role for the industry. This prefigured the privatisation itself. For instance, in 1999 Stephen Littlechild argued for

‘the ability of customers to choose their own supplier of electricity and not to be limited to the local supplier in their own area. Ten years ago (1989), nobody understood this concept. I had to argue very strongly for it even to be mentioned in the government’s White Paper’. (Littlechild, 1999, p. 4).

The RECs themselves recognized Littlechild as having a leadership role in shaping the sector. A senior manager at CoastElectric noted:

‘He stopped short of telling us what to do, I mean with our management policies. But through using regression analysis, he was very explicit about where we needed to be’.

An important part of the direction that Littlechild gave to the RECs was through the newly instituted ‘Guaranteed Standards of [customer] Service’. In these actions Littlechild provided a bridge between New Right economics and managerialism. For instance, Littlechild expressly promotes managerialism by framing performance in terms of customer service i.e. how long did it take for CoastElectric to respond to customers reporting electrical faults? Littlechild (1999, p. 2) himself described the process as follows: ‘a parallel aim (of privatisation) was to increase the role of the customers, so their voice should determine what happens ... decisions about electricity supply should be driven by the needs of customers’. It was of course Littlechild who defined customers’ interests and how they would best be achieved: ‘We also set 18 standards of performance, which would bear on management performance. We have since tightened many of these. We required companies who did not comply with the standards to make compensation payments’. The Guaranteed Standards of Service were notable for their absence of refer-

ence to engineering criteria thus emphasizing the role that accounting technologies played ‘in redefining organizational objectives’ (Ogden, 1995, p. 214). Similarly, Brunsson and Sahlin-Andersson (2000) argued that ‘Top management is expected to achieve control with the help of management accounting techniques, whereby people or units are made accountable for certain activities and results’ (p. 727).

Littlechild placed emphasis on ‘yardstick’ competition, which set utilities in competition with one another. This provided the impetus for utilities to attempt to out-do and compete with one another. One internal consultant at CoastElectric commented:

‘You have got to remember there are a lot of Egos involved. The CoastElectric directors think that they can beat the other RECs ...’

The competition between the different RECs injected a dynamism into the sector. CoastElectric’s mission statement, in the early days of privatisation, was very explicit on this point. It aimed to be regarded as the ‘Best Regional Electricity Company in terms of delivering extraordinary financial performance and customer satisfaction’. The performance measures instituted by the Regulator changed meanings ascribed to organizational activities and reshaped perceptions of what constituted the critical issues (i.e. customer service was elevated over engineering concerns): in distinct contrast to the nationalised past, the external environment was now *tightly* coupled with the internal environment. The competition between the twelve RECs was, in effect, to see which one was best in transforming itself.

Decoupled from the Regulatory process that took place in private there were very public media exchanges concerning regulation. It is in both the Regulator’s and utilities’ interest to emphasise, through ceremonial rituals within the media, that regulation is taking place in a manner that places the utilities under considerable pressure. Cooper, Crowther, and Carter (2001) use the metaphor of a film script whereby the regulator and the regulated pass through a sequence of acts, which culminates in the ‘shoot out’. Similarly, Bealing, Dirsmith, and Fogarty (1996) take a dramaturgical approach,

which emphasises that a ritualistic pattern emerges in the regulatory process. This involves the use of sanctioned language forms and normally results in acquiescence or compromise. While we concur with the ritualism ascribed to the regulation of privatised utilities within the UK it is important not to overstate the dramaturgical argument. The public aspects of the regulatory process were in many regards separate from the everyday interaction between the regulator and the utilities. Moreover, what is clear is that the result of the regulatory reviews placed the RECs in a position whereby they had to cut costs.

In a UK parliamentary select committee hearing on the liberalisation of electricity supply, Littlechild was characterised by a panel member as ‘you might have been packaging something akin to a commissar by saying, “This is how it is going to be done”’ (Hansard, 1998, 21st July, qu 122). His econometric modelling created the need for the Regional Electricity Companies to cut costs. His ‘Guaranteed Standards of Customer Service’ shifted the dominant orientation in the industry away from engineering excellence towards managerialist notions of customer service. Thus, the Regulator not only set out his expectations on customer service, he also evaluated whether these criteria were being met. This set CoastElectric on a managerialist course.

The work organisation/internal arena

In the context of UK society, as we have noted above engineering has not traditionally enjoyed a status comparable to their brethren in Germany or in France (Lee & Smith, 1992; Smith, 1987) while the utilities were exceptions to this rule. Privatisation was to mark a seismic shift in the history of this organizational field. From the vantage point of the New Right, public utilities – and those within them – were an anathema and were in need of reform. Engineering as a body of knowledge became liable to critique from outwith and its professional jurisdiction was no longer easily enforceable. The challenge to engineering professionalism has taken place through means such as increasing the *transparency* of what it is

that the engineering profession does. In this sense, through managerial techniques such as process mapping, an immanent part of both TQM and BPR, the hermetically sealed blackbox has been prised open, allowing activities that were once the preserve of a profession to be carried out by other groups.

In the aftermath of privatisation there was a creeping, yet inexorable, managerialisation of the field with RECs readily adopting management ideas. The incursion of managerialism was far from neutral for it called into question the legitimacy of the professional engineering regime. Thus it was inevitable that managerialism would clash with engineering.

It is worth zooming into some episodes at CoastElectric to illustrate the unravelling of the ‘blackbox’ (Latour, 1987) of professional engineering. In early 1994, the two Regional Engineering Managers put forward proposals for ‘Job Redesign’ plans, which amounted to a comprehensive redesigning of the organization. One element of Job Redesign consisted of a shift to autonomous team working, and this would imply a reduction in the task autonomy, skill level and task significance enjoyed by most engineers. Indeed, a senior manager maintained that

‘CoastElectric didn’t need engineers any more, in the way we once did’.

In addition to this, new accounting techniques enjoyed a close elective affinity with the Job Redesign plans. For instance, activity based costing rendered engineering tasks calculable. Such techniques allowed management to concentrate on a particular task and to state:

‘We don’t need to pay professional engineers 25 grand a year² to switch switches, we can get lower paid workers to do that’

While expert groups, in particular accountants and consultants, are often seen as central for *sustaining* technologies of organisational surveillance and control (Reed, 1996, p. 576), in our case engineers were seen as *objects* of reorganisation and

² In 1994 prices.

control. It was explicitly claimed that ‘engineers’ were no longer needed, in the same way as in the past. This must be seen in the context of the logic of managerialism being brought to bear on a particular problem, i.e. ‘why do we need engineers?’, ‘now we have customers’. It is appropriate to refer to Brunsson and Sahlin-Andersson (2000, p. 725) here:

“Public services used to have pupils, patients or colleagues i.e. people belonging at least in certain respects to the individual service. These services now define their own environments in terms of customers and competitors i.e. actors clearly external to themselves”.

The Job Redesign proposals expressly drew upon both Business Process Re-Engineering and teamworking, which were both in vogue management ideas in the mid 1990s (Mueller, Procter, & Buchanan, 2000). The consulting arms of the Big Four played a crucial role in this process of transfer and mimetic learning.

Indeed, the proposed ‘Team Manager’ and ‘Distribution Manager’ posts were not merely an exercise of re-labelling, but rather implied a significant re-evaluation and re-classification of different types of work in CoastElectric. A manager at CoastElectric observed that:

‘In the past we had people that were technically excellent, now we need excellent leaders – we don’t need the technical skills’. (Training and Development Manager)

The progenitors of ‘*Job Redesign*’ proposed ‘*Rule Based Engineering*’, a procedure whereby non-engineers would carry out engineering tasks by following a step-by-step guide. Thus, engineering knowledge gets partially destroyed and partially re-constituted in these rule-based engineering techniques, depending on the efficacy of knowledge transfer from engineer to industrial staff. The instructions in the guide were produced by analysing and then *codifying engineering repertoires* in order to enable what two senior engineers termed a ‘total task, lowest level approach’. This process

was inscribed with an accounting logic, which reduced complex activities into a set of simple rules. The efficacy of rule-based engineering depended upon the extent to which professional engineering knowledge could be codified and used by semi-skilled workers.

The mimetic adoption of ‘best practices’ from other organisations did not proceed without challenge. The ‘old’ professional engineering logic still exerted some influence and informed resistance (Cooper, Hinings, Greenwood, & Brown, 1996; Greenwood & Hinings, 1993), the latter being articulated by Senior Engineers, one of whom contended:

‘Only so many rules can be written, eventually engineering judgements based on technical knowledge need to be made. These can only be made by Engineers ... In other words you need to know why as well as how. Non engineers tend not to know the issues that are important in engineering matters, let alone being able to make judgements’ (...)

We will now try and make sense of why the powerful cadre of professional engineers seemingly failed to successfully defend their own interests. This failure was such that in a few short years ‘engineers’ went from embodying the ‘sacred’ to that of the ‘profane’. We argue that the seeds of engineering’s destruction lay partly in its history. Given that engineering had dominated CoastElectric since its formation in the 1940s, there was little need for engineers to legitimate why they were central to the organization: it was just taken as axiomatic. Therefore, engineering was never in a position whereby it had to promote itself in competition with other occupational groups (cf. Armstrong, 1985). Armstrong makes the point that professions derive power in organizations to the extent to which they can demonstrate that they can provide ‘value’ to the organization. Given that CoastElectric engineers were management and CoastElectric management were engineers, there was little need for engineers to prove their ‘value’. Rather the importance of engineering was enshrined in the very history of the organization.

That the engineers did not possess a tradition of defending themselves, that they had always been able to rely upon the richness of their professional power did not of course preclude them, as a group, from developing the sort of effective defence that would perhaps have successfully shielded the status of engineers. This necessitates a closer examination of the engineering cohort. Given that there were some 1000 professional engineers within CoastElectric, at the time of privatisation, it would be mistaken to presume that all engineers were equal. Rather within the cadre of engineers there was an elite – who occupied positions of 1st engineer and above. While in the organization, in terms of occupational definition – which had important consequences for status, autonomy and the control of resources – the chief dividing line was between ‘engineer’ and ‘non engineer’. Outwith, the cohort of engineers was seemingly homogeneous. Inspecting this group more closely there were, however, numerous important differentials in status. Perhaps the most striking feature was the way in which some of the engineers – especially the more senior ones – who were located at CoastElectric’s head office became exposed, very early on, to a wave of managerialist ideas. This was in part down to their physical adjacency to the numerous consultants, advisors and so forth that were increasingly a part of the organization. Simply put, it was not unusual for engineers, in close proximity to consultants, to metamorphise themselves, or to borrow from anthropological parlance: to ‘go native’, thereby readily appropriating the worldview of the managerialists, with attempts to put this into praxis. There was thus a crucial distinction among the engineers: those that successfully became managers and adopted a managerialist outlook. And those who were simply too late or ‘too low’ and who became victims of managerialism and who put up very little resistance indeed.

The main point we want to make, however, is that work organisation was no longer a semi-autonomous sphere, but the arena where senior management needed to make the changes necessitated by changed external expectations.

Summary, conclusions and implications for further research

This paper charts the dramatic changes that took place in CoastElectric following privatisation. In the space of seven years, professional engineers went from being the dominant group in the organization to, quite literally, being removed from the organization. The article seeks to understand and analyse how such a shift took place. This was set against a regulatory backdrop which saw treasury economists being displaced by management accountants.

In a historical study, Lounsbury (2002) studied how new finance professions contributed to the eventual establishment of a new market logic in the US. New professionals (money managers, security analysts, stockbrokers) had much to gain by popularising new financial theories, such as risk and portfolio management. As far as the structuration of the field of finance was concerned the role of regulatory forces was declining whilst the role of cognitive forces (e.g. financial economics) and normative forces (e.g. financial experts) was increasing (Lounsbury, 2002, p. 264). In our own study, we emphasize the crucial role played by the *regulatory* forces post privatisation. Indeed, the Regulator played a pivotal role in shaping and managing the electricity supply industry.

In the pre-privatisation days, the highly abstracted public finance model of regulation allowed engineers full jurisdiction over the internal organization so long as the financial criteria were met. The new Regulatory regime was concerned with the daily practices of the organization as well as setting broad cost and price targets. The close scrutiny afforded the RECs included a new raft of performance measures which required a shift away from engineering dominance and being subjected to stretching financial and customer service targets.

We have tried to capture the external pressures that CoastElectric was subjected to. The economic and political pressures came mainly from OFFER, the Industry Regulator, and the financial

institutions. The implications for CoastElectric were quite clear: profits must increase, costs and prices must go down. In a capital-intensive industry this presented something of a problem. The resolution of this problem was through the adoption of managerialist initiatives such as TQM and Job Redesign. These initiatives simultaneously addressed the economic and political pressures whilst also being sold as a cultural renaissance. While there was nothing inevitable about the consequences of these pressures, what is clear is that they were ‘realities’ that had to be responded to: indeed the overarching logic had changed from ‘loose coupling’ to ‘tight coupling’.

We argued that senior engineers embraced managerialism while inexorably shedding their identities as engineers and starting to internalise and espouse the nostrums of managerialism. The promise of managerialism was that many senior engineers now cast themselves as being at the vanguard of managerialism. In seven years many senior engineers went from seeing themselves as senior functionaries in a State-run bureaucracy to corporate executives at the cutting edge of management thought. Such was the completeness of the triumph of managerialism that many senior managers (formerly senior engineers) were to play a, even if only minor, role within the management ideas movement themselves – through giving talks to other organizations, sitting on ‘best practice’ panels and so forth. We recognise, however, that for the majority of engineers the dismantling of professional engineering resulted in their departure from the organization through premature retirement and redundancy.

What we have argued therefore is that the environment generated a package of changes that was then translated at organisational level. For example, ‘Job Redesign’ was a specific organisational answer to a field-wide challenge, namely a need to redefine engineering jobs, driven by the need to reduce labour costs but also meet much more demanding financial and customer service targets. Much of the destruction of engineers was done *by engineers* – but those who had readily adopted the practices and languages of managerialism. Indeed, in our case what had before been expressed in engineering language became re-formulated in

management language, and some personnel successfully made the transition.

What then does our perspective offer over extant contributions? While the important work of Ogden (1995) and Shaoul (1997a, 1997b) provide cogent explanations of why privatised utilities embarked on cost saving programmes, they stop at the economic dimension.³ They do not capture the movement from earlier loose to later tight coupling and, associated with that, from a dualist to a monist logic. The cultural and political seduction was used to make tight coupling a possibility. The corollary of the approach of both Shaoul and Ogden would be to infer that in the case of CoastElectric changes would amount to nothing but a reduction in engineers and an intensification of labour for those that remained. Clearly, this is a very misleading account of what *actually* happened. The contribution of our paper is that it adds a cultural and political dimension to their primarily economic perspective. For us, the point is that organizations are subject to political, economic and cultural pressures; taken together these notions help us understand the remaking of CoastElectric in the image of managerialism.

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³ While we acknowledge the huge philosophical differences that exist between resource dependency theory and Marxist accounting scholarship, on this particular issue they reach similar conclusions.

Appendix 1. Data display of the study of coastelectric

Constituent part of the field	Data used for its study
Policy-makers and the state	Secondary data on the Attlee Government CoastElectric archive documents relating to the creation of the organization Interviews with Engineers that had been employed by CoastElectric since prior to 1985 Organizational Charts from pre-1990 Internal personnel documents: describing the role of engineers
The rise of management techniques	The job redesign initiative Company documents outlining the proposals Attendance at presentations by senior managers Interviews with senior management Interviews with trade union representatives Interviews with engineers Access to trade union documents relating to job redesign Access to HRM documents on the job competency model Interviews with senior HRM managers
The regulator	Secondary data from the regulator itself Media reports on the role of the regulator Interviews with managers within regulatory Affairs in CoastElectric
Management consultants	Interviews with management consultants, working at CoastElectric Interviews with senior managers about the interventions by management consultancies in CoastElectric

Source: Authors.

References

- Abbott, A. (1988). *The system of professions: an essay on the division of expert labor*. Chicago: University of Chicago Press.
- Abrahamson, Eric (1991). Managerial fads and fashions: the diffusion and rejection of innovations. *Academy of Management Review*, 16(3), 586–612.
- Abrahamson, Eric (1996). Management fashion. *Academy of Management Review*, 21, 254–285.
- Armstrong, P. (1985). Changing management control strategies: the role of competition between accountancy and other professional bodies. *Accounting, Organizations and Society*, 10(2), 129–148.
- Arnold, P., & Cooper, C. (1999). A tale of two classes: the privatisation of midway ports. *Critical Perspectives on Accounting*, 10(2), 127–152.
- Bealing, W. E., Dirsmith, M. W., & Fogarty, T. (1996). Early regulatory actions by the SEC: an institutional theory perspective on the dramaturgy of political exchanges. *Accounting, Organizations and Society*, 21(4), 317–338.
- Brunsson, N., & Sahlin-Andersson, K. (2000). Constructing organizations. The case of public sector reform. *Organization Studies*(4), 721–746.
- Burchell, S., Clubb, C., & Hopwood, A. G. (1985). Accounting in its social context: towards a history of value added in the United Kingdom. *Accounting, Organizations and Society*, 10, 381–413.
- Carter, C., & Crowther, D. (2000). Unravelling a profession: the case of engineers in a British regional electricity company. *Critical Perspectives on Accounting*, 11, 23–49.
- Carter, C., & Mueller, F. (2002). The ‘long march’ of the management modernisers: ritual, rhetoric and rationality. *Human Relations*, 55(11), 1325–1354.

- Clarke, J., & Newman, J. (1997). *The managerial state*. London: Sage.
- Cooper, D. J., Hinings, B., Greenwood, R., & Brown, J. L. (1996). Sedimentation and transformation in organizational change: the case of Canadian law firms. *Organization Studies*(4), 623–647.
- Cooper, S., Crowther, D., & Carter, C. (2001). Regulation the movie. *Journal of Organizational Change Management*(3), 225–238.
- Crouch, C., & Marquand, D. (1993). *Ethics and markets: cooperation and competition within capitalist economies*. Oxford: Blackwell.
- DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48(April), 147–160.
- Djelic, M., & Quack, S. (Eds.). (2003). *Globalisation and institutions: re-defining the rules of the economic game*. Edward Elgar.
- Evetts, J. (2003). The sociological analysis of professionalism occupational change in the modern world. *International Sociology*, 18(2), 395–415.
- Fligstein, N. (1991). The structural transformation of American industry: an institutional account of the causes of diversification in the largest firms, 1919–1979. In W. W. Powell & P. J. DiMaggio (Eds.), *The new institutionalism in organizational analysis* (pp. 311–336). Chicago: University of Chicago Press.
- Foot, M., & Brivati, B. (1997). *Aneurin Bevan: 1897–1960*. London: Gollancz.
- Freidson, E. (2001). *Professionalism: the third logic*. Cambridge: Polity Press.
- Giddens, A. (1991). *The consequences of modernity*. Cambridge: Polity Press.
- Greenwood, R., & Hinings, C. R. (1993). Understanding strategic change: the contribution of archetypes. *Academy of Management Journal*, 36, 1052–1081.
- Hansard. (1998). 21st July, qu 122.
- Hopwood, A. G., & Miller, P. (Eds.). (1994). *Accounting as social and institutional practice*. Cambridge: Cambridge University Press.
- Lane, C. (1989). *Labour and management in Europe*. Cheltenham: Edward Elgar.
- Langley, A. (1999). Strategies for theorizing from process data. *Academy of Management Review*, 24(4), 691–710.
- Latour, B. (1987). *Science in action: how to follow scientists and engineers through society*. Cambridge, MA: Harvard University Press.
- Lee, G., & Smith, C. (1992). *Engineers and management: international comparisons*. London: Routledge.
- Littlechild, S. (1983). *Regulation of British telecommunications' profitability*. London: HMSO.
- Littlechild, S. (1999). Privatization, competition, and regulation of the British electricity industry, with some implications for India. In *Sixth Annual REI Foundation Day lecture delivered on 5th February 1999*. Text available at <<http://www.teriin.org/pub/books/fdaylect.htm>>.
- Lounsbury, M. (2002). Institutional transformation and status mobility: the professionalization of the field of finance. *Academy of Management Journal*, 45(1), 255–266.
- MacDonald, K. M. (1995). *The sociology of the professions*. London: Sage.
- Macintosh, N. (2002). *Accounting, accountants and accountability: poststructuralist positions*. London: Routledge.
- Morgan, K. (1984). *Labour in power 45–51*. Oxford: Clarendon Press.
- Mueller, F., & Carter, C. (2005). The scripting of total quality management within its organizational biography. *Organization Studies*, 26(2), 221–247.
- Mueller, F., Procter, S., & Buchanan, D. (2000). Teamworking in its context(s): antecedents, nature and dimensions. *Human Relations*, 53(11), 1387–1424.
- Murphy, R. (1983). The struggle for scholarly recognition: the development of a closure problematic in sociology. *Theory and Society*, 12(5), 631–658.
- Murphy, R. (1988). *Social closure: the theory of monopolization and exclusion*. Oxford: Clarendon Press.
- Noble, D. (1977). *America by design: science, technology, and the rise of corporate capitalism*. New York: Oxford University Press.
- O'Connell Davidson, J. (1994). Privatisation and employment relations: the case of the water industry. Mansell.
- Ogden, S. G. (1995). Transforming frameworks of accountability: the case of water privatization. *Accounting, Organizations and Society*, 20(2), 193–218.
- Oliver, C. (1991). Strategic responses to institutional processes. *Academy of Management Review*, 16, 145–179.
- Pettigrew, A. (1979). On studying organizational cultures. *Administrative Science Quarterly*, 24, 570–581.
- Pollitt, C. (1993). *Managerialism and the public services: the Anglo-American experience* (2nd ed.). Oxford: Basil Blackwell.
- Reed, M. (1996). Expert power and control in late modernity. *Organisation Studies*, 17(4), 573–598.
- Sahlin-Andersson, K., & Engwall, L. (2002). *The expansion of management knowledge: carriers, flows and sources*. Stanford University Press.
- Shaoul, J. E. (1997a). The power of accounting: reflecting on water privatisation. *Accounting, Auditing and Accountability Journal*, 10(3), 382–405.
- Shaoul, J. E. (1997b). A critical financial analysis of the post-privatisation performance of the UK water industry. *Critical Perspectives on Accounting*, 8, 479–505.
- Shenhav, Y. (1999). *Manufacturing rationality: the engineering foundations of the managerial revolution*. Oxford: Oxford University Press.
- Sherer, P. D., & Lee, K. (2002). Institutional change in large law firms: a resource dependency and institutional perspective. *Academy of Management Journal*, 45(1), 102–119.
- Smith, C. (1987). *Technical workers*. London: MacMillan.
- Smith, C., & Whalley, P. (1995). *Engineers in Britain: A study in persistence*. Aston University Working Paper series. RP9505.
- Turvey, R. (1969). Marginal cost. *Economic Journal*, 79(314), 282–299.

- Turvey, R. (2003). Price control of electricity distribution networks. [Downloaded from his Website].
- Turvey, R. 2005. Electricity Regulation. Draft for CRI regulatory Review. [Downloaded from his Website].
- Westlake, B., & Beckett, R. (1995). The OFFER electricity distribution review and its aftermath: a regional electricity company's perspective. *Utilities Policy*, 5(3–4), 207–218.
- Young, D. (1990). *The enterprise years*. London: Headline Press.