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NA
P. McInnes

From the Secretary of State

CONFIDENTIAL

Mike Pattison Esq
Private Secretary
10 Downing Street
London, SW1

R. J. C.

14 May 1981

Dear Mike,

MMC REPORT: CEGB

I understand that the Prime Minister has asked for a copy of the report by the Monopolies and Mergers Commission on the Central Electricity Generating Board which is to be published on 20 May.

--- I enclose a copy of the report and of the summary which it is intended to attach to our Press Notice next week. As the latter is rather long, we have side-lined the important passages.

I gather that you have received from the Department of Energy Private Office a copy of a letter on this subject from Mr Howell
--- to my Secretary of State of 30 April. I enclose a copy of Mr Biffen's reply.

I am copying this letter to Julian West.

Yours ever,

Nicholas McInnes

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Private Secretary

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SUMMARY OF MONOPOLIES AND MERGERS COMMISSION REPORT ON
CENTRAL ELECTRICITY GENERATING BOARD

The Central Electricity Generating Board was referred to the Monopolies and Mergers Commission on 3 June 1980.

The Commission were asked to report on whether the Board could improve its efficiency so as to enable it to reduce its costs or mitigate the effect of any increases in costs in the bulk supply of electricity.

EFFICIENCY

Financial Framework (Chapter 3)

The financial framework within which the Board operates requires it to obtain the Secretary of State for Energy's approval for its capital investment programme for each year and his specific approval before placing major orders. There are two general financial constraints on the electricity supply industry which also affect the Board's performance - the need to meet a financial target and a cash limit on borrowing.

The Commission believes that the Board's cost minimisation programme will help to limit increases in costs. There are, however, limits to the savings in unit costs which any such programme can achieve or which could be brought about by stimulating demand. They believe therefore that if the necessary savings cannot be achieved by these means one consequence of the present financial target will be a considerable increase in the price of electricity to levels somewhat higher than those contemplated in the present plans of the industry.

The Commission find that the Board has a sophisticated system of revenue cost control, which is operated efficiently.

Investment Background (Chapter 4)

The CEGB's investment programme at March 1980 price levels, is expected to double from £600m in 1979-80 to £1,200m in 1986-87. Generation projects account for about 80 per cent of this.

The Commission note that the Demand forecasting of both the CEGB and the Electricity Supply Industry has been seriously inaccurate in the past and has led to the premature ordering of new plant and increased costs. They conclude, however, that there have been changes of method and that the Board's approach is now sound. They recommend that the Board's Demand Charges in the Bulk Supply Tariff should be based on its plans for the development of its generating capacity over the next 10-15 years, rather than on any longer term expectation. In addition, the Demand Charges should be based on a central estimate of the net effective cost of new plant. The Commission believe that the industry's security standard requires further study under the aegis of the Electricity Council. Finally the Commission recommend more effective consultation between CEGB and the Area Boards on tariffs.

Investment Decisions (Chapter 5)

The CEGB's investment decisions are crucially affected by estimates of the future availability of coal and its price and of the costs of nuclear fuel. The Commission find that weaknesses in the CEGB's forecasting of imported coal prices and NCB prices over the long term give cause for concern, and they recommend that the Board should develop an internally consistent view of future domestic and imported coal prices and availability.

As regards nuclear fuel the Commission consider that, because of the uncertainty surrounding the cost of reprocessing of nuclear fuels and the market for uranium, the Board should adopt a sceptical attitude towards nuclear fuel costs.

On construction costs, the Commission say that there is evidence that the CEGB's power station construction programmes have suffered from persistent real price increases. They therefore recommend that a more realistic estimate of construction costs should take account of the Board's experience of real price increases in the past.

The Commission also note that the project construction times are at variance with the estimated contract programme and recommend that this aspect of the work on project appraisal be improved as a matter of urgency.

The Commission recommend that explicit account should be taken of market conditions in the supply of plant and of the relative price effects during construction. They also recommend that the Board should consider adopting a larger start-to-finish allowance for nuclear power stations.

Finally the Commission believe it is important that future investment projects should be assessed on more reliable economic grounds, so that if projects are put forward on other grounds, the cost will be appreciated. They recommend that appraisals should present results associated with the central estimates of all the relevant determining variables, and that sensitivity analysis should be developed further.

Operational Planning (Chapter 6)

Operational planning is designed to make the most efficient use of capital and other resources. The objective is to meet temporal and geographic demand for electrical energy at a pre-set level of security, and to maintain frequency and voltage levels within defined limits at least cost. This is achieved by using a suite of computer models that simulate the national system of fuel distribution, generation and transmission. The simulation procedure calculates the system marginal cost (SMC) for given demands, fuel costs and generation availability and selects the minimum fuel cost allocation.

The Commission conclude that the merit order based on system marginal costing is an appropriate concept for cost minimisation. However under some large divergence from assumed conditions the Commission conclude that it might be better to revert to merit order based on thermal efficiency for day to day planning and they suggest that the CEGB should investigate this. The Commission are satisfied that the Board has an effective operational planning system and that it can respond quickly to changes in planning assumptions. Such failures as occur are mainly due to errors in weather forecasting.

The Commission recommend that the Board should undertake a comprehensive cost/benefit study of central on-line scheduling and despatch of plant, and if the net benefits are consistent with the Board's normal criteria it should develop a plan for full implementation.

Fuel Procurement (Chapter 7)

Purchases of coal, fuel, oil, natural gas and nuclear fuel account for some 60 per cent of the CEEB's total costs. Coal has always been the most important fuel. The Commission say that the CEEB has two possible ways of reducing its coal costs - it can seek cheaper sources of coal and transport, and it can seek to ensure that the National Coal Board and British Rail operate as efficiently as possible, and that the benefits of this efficiency are passed on to the CEEB in the form of lower prices.

In the past the only major source of cheaper coal has been imports, but the CEEB has been prevented from taking advantage of such opportunities as were available. This has had the effect of raising the CEEB's costs because of the extent to which it has had to use more expensive home-produced coal. The Commission criticise the understanding between the CEEB and the NCB, because coal prices are related to the retail price index rather than to changes in the costs of the supplies, and because of the absence of any relationship with long-run marginal cost. They therefore recommend that the CEEB should aim to improve the terms and increase the duration of the understanding.

As regards coal transportation the Commission find that the exclusive dealing agreement with British Rail for the transport of coal is a major restriction on competition from alternative forms of transport and they recommend that it be abandoned.

They also recommend that the two industries (British Rail and CEEB) should revise their price variation mechanism in their agreement so as to give British Rail a greater inducement to limit growth of their costs, and to enable the CEEB to benefit from improvements in productivity in rail carriage of coal.

The Commission conclude that the Board is efficient and professional in its procurement of oil. As far as nuclear fuel is concerned they say that CEEB has secured long-term supplies of uranium at prices lower than those on the spot market. They recommend, however, that the Board should seek to negotiate 'call off' clauses in its contracts to keep stock levels as close to requirements as possible, and they should persist with a policy of diversifying its sources of supply.

The relationship between CEGB and British Nuclear Fuels Ltd presents difficulties owing to the lack of competition. The terms of trading provide for BNFL to supply specified information. While this is satisfactory as regards operating costs, the situation is less so as regards investment projects. This, and the Board's own slowness in costing appropriate alternative options, has vitiated a part of the investment appraisal for AGR power stations. The Commission recommend that if a PWR programme is undertaken, the CEGB should seek competitive tenders from BNFL and foreign organisations for supply and reprocessing of the fuel.

Availability and maintenance (Chapter 8)

The Commission examined the maintenance of power stations and are satisfied that they are well managed. They also note that availability of large conventional stations has improved considerably in recent years. However there are continuing difficulties concerning the availability of nuclear plant.

The systems for reporting shortcomings are fragmented: improved reporting systems could enable the CEGB's operating experience to be taken more fully into account in new plant designs.

The Commission recommend that full quality assurance procedures should be introduced at large power stations, with a nominated person independent of other functions responsible for quality.

Plant Spares (Chapter 9)

Plant spares fall into two main groups. Regional spares, which include a large number of items of many different kinds and National spares which include a relatively small number of substantial items (for example, starters, rotors and transformers) usable in more than one Region which it would not be economic for any individual Region to hold. Regional plant spares are held at Power stations.

The Commission conclude that in matters of purchasing and stock control the Board has in the past relied upon the judgement of competent and resourceful engineers capable of managing risk, making repairs, exchanging spares etc. This has helped to maintain a high level of availability in the generating system. However this approach has obscured the need for detailed Operational Research studies and the introduction of more advanced methods of stock control.

Although this may be changing already, the Commission recommend that the Board should develop these methods and, as an interim measure, it should charge interest to Regions on the value of stocks held.

They also recommend that Regions should systematically record the number and percentage of prices challenged in single tender contracts, together with prices asked and prices to be paid, and then compare the results.

On national spares they recommend that the Board should consider whether its use of a 15 per cent rate of return and three-year pay back is causing under investment in national spares. Finally the Commission recommend the increased use of standard designs owned by CEGB to permit competitive tendering for, and reduced holdings of, spares.

Industrial relations and efficient use of manpower (Chapter 10)

The Commission find that the Board's personnel function is well organised and co-ordinated. Industrial relations are generally good and there are few strikes or other forms of industrial disruptions.

There has been an increase in output per head, very largely due to a 30 per cent reduction in non-building industrial staff, improvements in flexibility of working practices, reduced over-time working and the introduction of work measurement and bonus incentives. There is some evidence of overgrading among engineering staff and some indications of reluctance to accept and cooperate in rationalisation of their grading structure. The Commission believe that the management should put forward a timetable for the introduction of job evaluation; and they say it is important that the engineering staff

should cooperate in measures to improve the efficiency of their utilisation and employment.

The Commission consider there is scope for greater efficiency of administrative, clerical and sales staff and they recommend the further implementation of the established clerical work measurement systems and the application of modern office technology.

The CEGB are commended for their achievements in improving the quantity of electricity generated per head over the past fifteen years. In recent years, however, the rate of improvement has slowed appreciably, while at the same time the CEGB's labour costs have been rising faster than the national average. In consequence the Board has been less successful recently in containing the rate of increase in its unit labour costs. The Board and all the trade unions in the industry therefore need to seek to improve productivity and reduce costs further.

Management information systems (Chapter 11)

The function of a Management Information System (MIS) is to provide the decision maker at all levels of management with the best information available relating to the decision to be taken. MIS normally acts as an aid to three categories of management activity, namely strategic planning, management control and operational control.

The Commission find that the CEGB's main Management Information Systems provide adequate information for operational control and functional management control. The systems are not over elaborate. However the Board has no information system which brings together information across all resources so as to give an integrated approach to strategic and corporate planning. At station level there is no uniform system to serve in a convenient form the needs of general management.

They therefore recommend that the Board's management information systems should be comprehensively reviewed and a strategy for the next decade produced.

The construction of power stations (Chapter 12)

The CEGB organises the construction of its power stations through its Generation Development and Construction Division at Barnwood near Gloucester. Nearly three quarters of its effort is directly devoted to managing the client role of the Board vis-a-vis contractors engaged in major power station construction projects. There have been a number of previous enquiries in this area, notably the National Board for Prices and Incomes in 1968, NEDO in 1970 and 1976 and the Price Commission in 1979. The Commission have therefore restricted their investigations to an examination of the ways the Board is implementing its new policies.

The construction of power stations has been bedevilled by labour relations problems for many years amongst contractors undertaking this work. The Commission conclude that whilst many of the weaknesses and failings on power station construction sites discussed in earlier reports remain, some important progress in site labour relations and productivity has been made recently. In particular, steps taken by the CEGB to improve coordination and control at Ince, Littlebrook, Grain, and Drax are welcomed.

There has also been some progress towards the long delayed national agreement for construction sites first proposed by NEDO in 1970. As it is still uncertain as to whether negotiations for a national site agreement can be brought to an early and successful conclusion, however, the Commission recommend that the CEGB should introduce a model agreement for use on its sites.

The design and construction of nuclear power stations have presented severe problems in the past. These must be overcome if the nuclear programme is to be pursued successfully. No arrangement has yet been devised whereby design and safety risks can be borne by any party other than the CEGB and ultimately its customers. The Commission believe that the proposed arrangement for Heysham II, whereby the National Nuclear Corporation (NNC) would act as the CEGB's agent rather than as a contractor is a realistic approach to the problem of performance risk which recognises the inability of the NNC to meet liabilities beyond its fee and capital without guarantees from its shareholders.

The Commission recommend a number of principles which they consider the CEGB should be guided in letting future contracts for nuclear power stations. These include: seeking out potential suppliers and contractors willing to bear performance risks or guarantees of equipment performance; contracts should be let on a firm price basis with appropriate price variation clauses; and there should be unified control over the execution of contracts.

General comment

By way of a general comment, the Commission say that the inter-relationship between nationalised industries raises important issues of public policy about their respective costs and prices. Where nationalised industries, each having a virtual monopoly, deal with each other, the purchaser may not resist the seller's demands as vigorously as it ought, since it can pass on its costs to its customers. Also there can be no certainty that the bargains they strike will lead to the most efficient use of resources. One nationalised industry cannot be at all confident that the charges it pays for another's service or product are actually related to the costs incurred in providing that product or service.

The Commission recommend that the Government should give fresh thought to the objectives set for nationalised industries which deal largely with each other. If, for example, it is considered to be in the national interest that high-cost coalfields shall remain open in the medium term, this might be better done by adjusting the financial objective of the NCB than by raising the price of coal and so making users of coal and electricity pay prices set above long-run marginal costs.

PUBLIC INTEREST

The Commission's terms of reference required them to examine five areas of the CEGB's activities with a view to assessing whether the Board was pursuing a course of conduct which operated against the public interest:

- a) its internal cost control and project control systems
- b) its management information systems
- c) its purchasing policies and methods of stock control
- d) its management of plant maintenance and the effect of programmes for plant maintenance on plant availability
- e) the planning and appraisal of new investment, and its ability to carry out its proposals for such investment within the cost and the time estimated.

In its internal cost control and project control systems, its management information systems and its management of plant maintenance, the Board is not found to be operating against the public interest.

In respect of its purchasing policies, the Commission feel bound to conclude that the Board could have had lower costs in recent years if it had been free to pursue the objective of cost reduction by every means available. By being prevented from using cheaper imported coal, by pursuing a 'buy British' policy and by ordering power stations 'in advance of need' costs are not now, and are unlikely to be in the future, as low as they could be. As this arises not from lack of efficiency in the use of its existing resources, but from concern on its own or the Government's part for the interests of major suppliers, the Commission conclude that the Board has not been operating against the public interest.

As far as planning and appraisal of new investment is concerned, the Commission find that, while the Board's demand forecasting has improved, there are serious weaknesses in its investment appraisal. In particular a large programme of investment in nuclear power stations, which would greatly increase the capital employed for a given level of output, is proposed on the basis of investment appraisals which are seriously defective and liable to mislead. They conclude that the Board's course of conduct in this regard operates against the public interest.

COMMERCIAL IN CONFIDENCE

The Commission note that the CEGB has serious problems in carrying out its investment proposals within the cost and the time estimated. Productivity on site has improved and the Board is taking such steps as are in its power to help solve the problems of industrial relations in site construction. In view of these recent developments the Board is not found to be operating against the public interest.