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MINISTERIAL GROUP ON COAL

OIL SUPPLIES TO THE CENTRAL ELECTRICITY GENERATING BOARD
IN THE EVENT OF A MINERS' STRIKE

Note by the Chairman of the Official Group on Coal

The attached report by the Official Group on Coal about oil supplies to power stations during a miners' strike is circulated for the information of the Ministerial Group. The report has been in preparation for some time and thus does not closely reflect the events of the past week or the possible imminence of decisions on increasing oilburn.

2. The report explains the part played by oil in the CEGB's plans. They advise that available fuel supplies at power stations provide in excess of 6 months' endurance, provided oilburn is phased up to the maximum over 4 weeks and oil supply then remains unconstrained. The reasons for phasing any move to maximum burn are explained in paragraph 4.5 in the Summary and Conclusions and paragraphs 2.7 - 2.11 in the main text. They are, while maintaining 6 months' endurance, to allow the CEGB and oil companies to make the necessary logistical and production arrangements in an orderly manner and with a minimum of perturbation in the market.

3. The possible means in paragraph 4.7 iii. of reducing the market effect of increased oilburn are already being pursued by the Department of Energy with the CEGB. The CEGB have in hand the short-term measures described in paragraph 3.2 on stocks and oil purchases and are in discussion with possible suppliers of the further additional oil necessary to achieve and sustain maximum burn, although they will not be willing because of the financial implications to go further without further guidance.

4. Events which led to a loss or curtailment of supplies from the Gulf would clearly have an important effect on the international market and would require present plans for oilburn to be reconsidered urgently. The CEGB estimate that endurance of a miners' strike without additional oilburn would still be 4 months.

5. It is clear that oilburn will be a matter for early decision by the Ministerial Group and the CEGB if the industrial action continued. It will, of course, be necessary to take more fully into account than the consequences of oilburn for CEGB finances and customers' bills (paragraph 2.3 in the report)

Signed P L GREGSON

Cabinet Office

15 March 1984

OIL SUPPLIES TO THE CENTRAL ELECTRICITY GENERATING BOARD
IN THE EVENT OF A MINERS' STRIKE

I. INTRODUCTION

1.1 The achievement of maximum oilburn at Central Electricity Generating Board (CEGB) power stations throughout a miners' strike is assumed in present estimates of endurance. The Official Group on Coal was commissioned to investigate where trouble might arise in the move to maximum oilburn and what action might be taken in advance to make sure that the necessary oilburn was achieved. This report has been prepared following consultation with the CEGB.

1.2 The oil burned in oil-fired power stations is heavy fuel oil (HFO). The CEGB's winter oil consumption varies between 40,000 and 90,000 tonnes per week and averages 60,000 tonnes per week. Maximum oilburn would increase this weekly consumption to about 350,000 tonnes. The ability of the CEGB to move rapidly to maximum oilburn depends on their stocks of HFO, the distribution of stocks in relation to consumption and lead-times for obtaining additional supplies to sustain oilburn at maximum. Section II of this paper reviews CEGB stocks, arrangements for resupply, likely market effects of increased UK demand for HFO and the timing of the move to maximum oilburn. Section III examines the scope for further action. Section IV summarises the report and the Group's recommendations.

SECTION II. THE PRESENT POSITION

UK Production of HFO

2.1 When construction of the CEGB's modern, large, oil-fired stations was started UK refineries had sufficient capacity to produce the necessary fuel oil for base-load operation. However, the escalation in oil prices over the past decade has meant that these stations are now largely operated only when required to meet winter demand. Refinery output has changed and some refineries have closed. In the event of an increase of the order described in Section I in the demand of the CEGB for HFO, their suppliers would have to adjust production, would need to draw upon their international supply systems and would also have some logistical difficulties to overcome in getting the supplies to the power stations where they were needed. It would not, therefore, be straightforward to make available immediately supplies sufficient to sustain maximum oilburn.

Oil Supplies to Power Stations

2.2 Oil-fired power stations fall into two groups. Just under half of consumption at maximum oilburn is accounted for by stations at Ince, Fawley and Pembroke, which draw their supplies direct from linked refineries. The output of these refineries may not be sufficient to meet the needs of the power stations at maximum burn without disrupting supplies of other oil products. The companies expect therefore to draw on their international supply systems or the spot market. The CEGB would expect to enter into commitments with a three-week lead-time for ordering. Just over half of consumption at maximum oilburn is accounted for by large stations in the South East region normally supplied from the spot market. Oil to keep these stations at maximum oilburn should be available given an ordering time of 4-6 weeks. In both cases, these ordering times represent a forward commitment which would be likely to extend beyond the end of any emergency due to a miners' strike and which would have cost implications for the CEGB.

2.3 Gross costs of oil purchase by the CEGB might be about £50 million per week once the position had stabilised following the beginning of a miners' strike, assuming an HFO price of about \$200 per tonne (see paragraph 2.8 below). On these assumptions the net costs, taking into account the saving on coal,

would be about £20 million a week. If this were allowed to feed through the normal fuel price adjustment mechanism of the CEGB's bulk supply tariff, average electricity prices to monthly-billed industrial and large commercial consumers would increase by about 15 per cent. Quarterly-billed consumers, domestic and other commercial, would experience no immediate increase though the Area Electricity Boards would carry additional costs of £11 million a week above budget (equivalent to about 10 per cent of revenue from quarterly-billed consumers) which they might have to recover, depending on the Government's view, when tariffs were next adjusted. It might be possible to spread the extra cost of oilburn over a longer period than that of the period of the dispute; this would lessen the immediate impact on industrial consumers. It might of course be possible to avoid passing on all or part of the extra costs if the Government wished to reduce the impact on consumers and were willing to relax the ESI's financial target and EFL. Against this, it could be argued that there is no reason why consumers should not pay for costs incurred in maintaining their supplies; a temporary supplement of 10-15 per cent is likely to be seen as preferable to disconnections.

Stocks

2.4 At the beginning of a miners' strike the CEGB would expect to be holding stocks of over 1 million tonnes. In principle, this is roughly three weeks' consumption at maximum oilburn. But in practice the stocks are not evenly distributed in relation to maximum demand. Some stations hold more than three weeks' stocks, while others hold considerably less. This uneven distribution is illustrated in Table 1.

TABLE 1

Power Station	Source of Supply	Normal Winter Deliveries*	Maximum Consumption*	Usable stocks**
Ince	Refinery	-	35	85
Fawley	Refinery	20	70	10
Pembroke	Refinery	10-20	70	100
SE Region Stations	Spot market	-	190	800

* Thousand tonnes per week.

** Thousand tonnes

2.5 For maximum oilburn to be achieved rapidly, it might be necessary to take special action to fill gaps in stocks which could not be filled from normal sources, given the lead-times for resupply described above in paragraph 2.2. Such action might involve recourse to the spot market to fuel power stations usually supplied from linked refineries: that might be particularly expensive if it intensified the initial price reaction of the spot market to the abrupt increase in demand at the beginning of the emergency. The main possibility, however, would be to draw on strategic stocks which the oil companies are required by an EEC Directive to maintain equivalent to 76½ days normal consumption. In favourable circumstances, up to 25 days normal consumption of HFO - equivalent to 3-4 weeks maximum oilburn by the CEGB - might be available to the Board from this source. The role of the Government would be to authorise the oil companies to reduce their stocks by a specified amount below the level of their prescribed stocking obligations. This would need careful handling in view of the EEC commitment involved. It would then be for the CEGB to obtain the additional supplies from the oil companies within their normal relationship of client and supplier.

2.6 The purpose of these strategic stocks as a buffer against international crisis might limit their availability, however. The Government would have to take stock of international circumstances - in the Gulf, for example - before it decided whether to seek to release strategic stocks.

Reaction of the Market

2.7 The view of the Department of Energy is that there is in principle enough refining flexibility in the UK and overseas to meet the demand for extra HFO to maintain maximum oilburn. It is unlikely that the additional demand would have significant effects on the market for crude, where extra demand would be .35 million barrels per day, compared with UK production of 2.3 million barrels per day and OPEC output of 17.5 million barrels per day. At least over the next half year or so, such an increase in demand might actually help to counter underlying weaknesses in the market.

2.8 The effect on the HFO market merits more serious attention. Demand for HFO would tend to grow as a strike went on, as industries which were equipped to switch from coal to oil did so. This might increase eventual total UK demand for HFO by perhaps a further 60,000 tonnes per week; a significant

increase, though relatively modest compared with that arising from the CEGB's activities. Estimates of the effects of increased UK demand on HFO prices are inevitably speculative. Best available estimates are that a move to maximum oilburn might produce peak prices of up to \$250 a tonne, compared with \$180 at present; and that the price might stabilise somewhere between \$200 and \$230 a tonne.

2.9 The view of the Group was that, in spite of the likely price effects and assuming no major curtailment of supplies for external reasons, the market could be relied upon to meet any difference between the CEGB's needs for HFO and what the oil companies could supply from within their own systems. The world market is used to responding to changes in demand and, although an initial market adjustment could have unwelcome price effects, there is a world over-capacity at the moment for producing HFO.

2.10 The Group considered, however, that it was desirable to ensure if possible that excessive price effects were avoided. Not only could there be serious implications for bulk energy users, if high increases occurred and were passed on to consumers, but price increases in the HFO market might engender an atmosphere of crisis which would not be favourable to the Government's aims. At the cost of some flexibility, the use of one company as an agent for the acquisition of supplies for the Thameside power stations might help to mitigate price effects by avoiding competitive purchasing by a number of CEGB suppliers. The Board are discussing this possibility with Shell and others. A more effective measure might be a maximum price which the CEGB should stay below in buying HFO, though it is not possible to say precisely beforehand what that figure should be. Inevitably, a maximum price might have some effect on the ability of the CEGB to move immediately to maximum oilburn.

Phasing

2.11 Phasing the move to maximum oilburn could have some small effects on overall endurance, but would have advantages in addition to moderating the market effects. In particular, it could allow the CEGB and the oil companies to make the logistical and production arrangements necessary to maintain maximum burn in an orderly way at the outset of a strike. Phasing up to maximum burn over a period of one month would in theory involve the loss of about one week's endurance. This is, nevertheless, the CEGB's current planning assumption,

forming part of the Board's arrangements to achieve the objective of 6 months' endurance.

Conclusions

2.12 The Group concluded that it was likely to be worthwhile in the event of a miners' strike to phase the move to maximum oilburn over a period of up to one month, given the logistical and production advantages for the oil companies; the need to moderate so far as possible the impact of maximum oilburn on the HFO market; the relatively small cost in terms of endurance; and the likely scope for reducing that cost by beginning the move to maximum burn before a strike began. Decisions on the timing and phasing of oilburn would need to be taken in the light of levels of coal stocks; international circumstances and implications for the availability of strategic stocks of HFO; and the state of industrial relations in the coal industry and other industries where sympathetic action might be a possibility. The fullest consultation with and guidance to the CEEB would be essential on a wide range of matters, including the level of any maximum price for HFO within which the CEEB should operate and the timing of the move to maximum oilburn.

III. POSSIBLE ACTION ON STOCKS

The Options

3.1 The Group considered that the only effective options for action to enhance the ability of the Board to move and maintain maximum oilburn involved expansion of HFO stocks.

3.2 Action at short notice could fill gaps which might otherwise occur early on in a period of maximum oilburn because of the uneven distribution of CEGB stocks in relation to consumption. Two options considered by the Group were:

- a. filling storage at the Fawley refinery to provide 80,000 tonnes, equivalent to one week's consumption, at a cost of £10 million and with a lead-time of four weeks;
- b. oil purchases for early delivery to Thameside: 100,000 tonnes at a cost of £12 million with a lead-time of two weeks.

The CEGB have put action in hand on both these options.

IV. SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

- 4.1 Maximum oilburn would involve an increase in CEGB consumption of HFO from a winter average of 60,000 tonnes per week to about 350,000 tonnes per week (Section I).
- 4.2 Market changes in recent years mean that there would be production and logistical difficulties for the CEGB's suppliers in a move to maximum oilburn, but there would be good prospects that oil to keep power stations at maximum burn should be available from normal sources given ordering times of 3-6 weeks (2.1 - 2.2).
- 4.3 Net costs of oilburn might be about £20 million a week and would lead to significant increases in bills if passed on to consumers (2.3).
- 4.4 Current CEGB stocks of heavy fuel oil are in principle equal to three weeks' consumption at maximum oilburn, but are not evenly distributed in relation to demand. To move rapidly to maximum oilburn it might be necessary either to draw on strategic stocks (which would have implications for EEC obligations), to have greater recourse to the spot market, or both. The availability of strategic stocks would depend on the international situation at the time (2.4 - 2.6).
- 4.5 Maximum oilburn would be unlikely to affect the market for crude oil. It would however be likely to increase the market price of HFO to a degree which could be significant but which would probably be tolerable. It would be desirable to ensure as far as possible that the effect on the market was not such as to produce excessive price effects or to engender an atmosphere of crisis which did not favour the Government's aims. Price effects would be reduced to some degree if one company was used by the CEGB as sole agent for the acquisition of supplies on the spot market. There would be a more significant impact on price effects if the CEGB were to stay below a specified maximum price in buying HFO. It would probably be desirable to move to maximum oilburn over a period of one month in order to minimise perturbation of the market (2.7 - 2.11).

4.6 The CEGB have in hand more limited short-term arrangements to fill early gaps in existing stocks by increasing storage at Fawley and by making purchases on the spot market for early delivery to Thameside power stations (3.1 - 3.2).

Recommendations

4.7 The Official Group

- i. concludes that, although it will be necessary to overcome some logistical and production problems, existing stocks and resupply arrangements are likely to allow maximum oilburn to be achieved rapidly;
- ii. recommends phasing the move to maximum oilburn over a period of up to one month to allow necessary logistical and production adjustments to be made in an orderly manner and to minimise market perturbation;
- iii. recommends that the Department of Energy
 - a. should pursue with the CEGB the advantages of using a single oil company as sole agent for purchases on the spot market during a miners' strike;
 - b. should discuss with the CEGB guidelines regarding the maximum price that the Board should pay for HFO.