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MINISTERIAL COMMITTEE ON ECONOMIC STRATEGY

INVERGORDON SMELTER: PROPOSED RESTART WITH A NEW POWER CONTRACT

Memorandum by the Secretary of State for Scotland

1. This paper reports on the situation following the closure by British Aluminium (BACo) of their smelter at Invergordon. It describes discussions which have been held with aluminium companies interested in taking over the smelter in order to restart it, explains the issues involved in a possible new power contract which could make the smelter operation viable and seeks the agreement of colleagues to the steps which would be necessary to put such an arrangement in place.

The Background

2. At the meeting chaired by the Prime Minister on 18 December 1981 we decided we could not accept the only conditions likely to be acceptable to BACo which could have kept the Invergordon Smelter open on the basis of the old power contract. This would have involved an annual subvention estimated at approximately £16m, guarantees against excessive power cost escalation and no provision for review. The company accordingly announced on 29 December immediate closure of the plant so as to terminate their power contract before the end of their accounting year.

3. As I feared the closure has provoked great bitterness and anger in Scotland, especially in the Highlands. The effect has been even more traumatic than the closure of Linwood which had four times as many jobs and the catastrophe is seen as more directly the responsibility of Government. The 890 jobs lost are in a remote area and will have very serious repercussions on the local economy so that the total job loss including indirect effects is likely to be at least 1500. This will raise unemployment to 25 per cent with no prospect of those laid off being employed in other activities in the area. There is no doubt that the repercussions, both political and economic, are very far reaching: British Rail expect to lose £2.7m a year in revenue, putting their continued operations in the North of Scotland at risk; NCB will lose sales for 750,000 tonnes of coal per annum following the switching of BACo's tranche of Hunterston B to other consumers; and Highland Region will lose some £750,000 in rates. Some of the infrastructure built up in the area in recent years will be underused and housing, much of it owned by BACo workers, will be very hard to sell.

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4. Apart from the fact that the area is economically fragile and remote my difficulties in defending the closure of the smelter are much increased because: first, the failure of the plant is in no respect due to shortcomings of local management or labour; secondly it is noted that the other two major UK smelters, Anglesey Aluminium and Alcan at Lynemouth both continue despite the fact that it is the Highlands, with their hydro-electric power, that have the cheapest indigenous electricity source in Britain. Anglesey has been saved by the fact that Dungeness B, the nuclear power station to which it is linked is 8 years late and the contract appears to contain safeguards which may make it impossible ever to charge the full cost of electricity generation; I estimate that with the electricity price presently paid by Anglesey a subvention by the CEBG's other consumers of around £30m a year is implied. The scale of this subvention has never been disclosed but the calculation is not difficult. Alcan have their own power station and a special contract with the NCB which enables them to produce power at a price which makes their smelter competitive. Similar arrangements would make Invergordon viable also and a solution along these lines is examined in paragraphs 9-11 below.

Absence of Alternative Employment Opportunities

5. I have considered whether any other activity could be introduced to the area to make good the loss of the smelter, but, despite the Cromarty Firth's outstanding qualities as a natural deep water harbour, I have concluded that this is not possible. High hopes were entertained of further oil and petrochemical development, but the failure of the private sector to support the gas gathering scheme and the depression in the petrochemical market have led to much local disappointment. I have therefore dismissed this as a solution in the timescale required. The existing enterprises in the area, Highland Fabricators at Nigg, M K Shand, and Invergordon Distillers have no scope for expansion and are more likely to lay off labour.

Prospects of a New Smelter Operator

6. For all these reasons I have felt it necessary to say that we would consider carefully any proposals which could enable the smelter to restart under a new operator. I have also said that we would do our utmost to find a company willing to take it over. The strongest interest so far has been shown by Alcan but detailed discussions have also been held with Alumax and my officials have in addition seen Norsk Hydro and Aardal Og Sunndal (ASV) who made tentative enquiries. Despite the depressed state of the aluminium market, they see a chance to acquire relatively modern capacity at what is likely to be a very low cost; but their interest can only be taken further to successful negotiation if it is possible to offer a new power contract on terms which are competitive for the aluminium industry internationally. This implies a price for electricity of not more than 1p to 1.2p per unit and with provisions for escalation which offer adequate security against that price getting out of line in future with the price of aluminium.

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A New Power Contract

7. I have considered three possible ways in which a new power contract might be put together:

(a) Reconstituting a nuclear power station arrangement similar to the BACo contract.

(b) A contract with NCB for coal similar to Alcan's for Lynemouth.

(c) Hypothecation of the hydro electric system for use in the smelter.

The details of these arrangements are set out in the Annex.

I reject (a) because it would fail to produce a cheap enough supply. Although the running costs of the Hunterston B's AGR are about 1.2p per unit, to avoid the electricity board being charged with unfair discrimination the company would have to buy a tranche of the power station in the same way as BACo did. An adequate tranche at current values would cost at least £100m, making the total cost of supply well over 2p per unit. Course (c) is at first sight attractive since on their historic costs the hydro stations produce power at approximately 0.8p per unit. But primary legislation would be required to remove the unfair discrimination clause in the Hydro Boards statutes and of this valuable source of supply would be to put up their electricity prices by some 4 per cent. Because the individual hydro stations do not have the water resources to run continuously they are best suited to peak load rather than the base load required by the smelter. For this reason the very large demands of the smelter would require about 60 per cent of the units sent out from the whole of NSHEB's hydro system.

8. This leaves course (b). The South of Scotland Electricity Board (SSEB) which has surplus capacity in its system, partly as a result of the Invergordon closure, would be prepared to lease on nominal terms a coal fired power station of appropriate capacity which would otherwise be very little used. This would avoid the problem of unfair discrimination. A successful outcome with a price per unit of electricity between 1p and 1.2p then depends on the terms which the aluminium company can negotiate for a supply of coal of approximately 750,000 tonnes per annum. If the terms were similar to those currently enjoyed by Alcan for their smelter at Lynemouth there is no doubt that Invergordon would be viable. This route is defensible in the Scottish electricity field as no other consumer comes anywhere near the demand figures for Invergordon (200MW continuously), the next largest user is British Steel Corporation at Ravenscraig who occasionally have a demand for 80MW at peak times only.

9. Alcan's proposal to take over Invergordon makes use of their present contract with the NCB which provides for a supply of coal some 300,000 tonnes a year in excess of Lynemouth's requirements. The surplus is currently used to sell electricity into the English grid. They would propose instead to ask for delivery of equivalent surplus coal in Scotland where it could supply about 40 per cent of Invergordon's requirements of electricity. It would also be necessary to make up the balance of approximately 450,000 tonnes at a special price which is

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well below standard domestic market rates. The NCB have given Alcan notice of their intention, unless acceptable commercial terms can be negotiated, to terminate the first part (900,000 t pa) of their current coal supply in December 1983, when the contract provides for termination, and to terminate the remainder (400,000 t pa) of the supply in December 1986. The present contract terms involve a loss of £26m pa to NCB. ALCAN are discussing their proposals for Invergordon and Lynemouth with the NCB. It is for consideration whether something related to the export price of coal on this additional tranche would be acceptable. But on the assumption that Alcan are at present paying £10 a tonne and the Scottish export price, which is of course subject to variation, is £25 this would give an average price of £19. My own assessment is that the average price over the total supply could not be more than about £15 per tonne under present conditions to make the smelter viable. This figure has been confirmed in discussions with outside consultants but has not been discussed in detail with Alcan. However, as with the existing Alcan contract there should be provision for escalation linked to the price of aluminium and as the market recovers, which it is expected to do, this will automatically bring a rise in the coal price.

10. A coal price of this order in present conditions will of course give the NCB considerable difficulty, though it might be possible to obtain something approaching it from private open cast operations in Scotland. NCB's initial position is that they will be glad to supply coal to keep both smelters going but they will need Government assistance if they are to meet the price. However the NCB badly need the market outlet in Scotland. As a result of Peterhead power station coming on stream to burn gas liquids until Shell/Esso's Mossmorran petrochemical plant is ready, NCB already face a loss of sales of around 1½m tonnes a year in Scotland for the next three years at least. The closure of Invergordon would add a further ¾m tonnes so that the total demand for something coal in Scotland could fall from 7m tonnes a year to cannot be under 5m. In the present industrial relations climate, NCB their useful life, so that they are likely, if Invergordon closes in addition to the loss of sales at Peterhead, to need to export 2-3mt pa from the Scottish coalfield at internationally competitive prices. This would itself create a financial problem for NCB, which would necessitate a further increase in their deficit grant beyond that already agreed for Peterhead.

11. NCB may well be reluctant to consider an arrangement whereby the aluminium industry would receive substantial support through the vehicle of NCB deficit grant. Their present grant already represents such support for Alcan at their Lynemouth smelter to the extent of £26m as against the ordinary domestic selling price for coal. But in my view, it would be a mistake for NCB to resort to further increased exports as a result not only of Peterhead but of the collapse of the aluminium industry at prices not available in the home market, which can only benefit our industrial competitors; I would much prefer to see British coal used under special arrangements in our own market for industries such as the smelter even if that does necessitate Government support through an increase in NCB's deficit grant and EFL. As the recent WEDO report on industrial energy prices demonstrates other EEC countries subsidise their domestic coal supplies to a much greater extent than we

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do in order to compete with imports. UK coal may therefore claim to be the lowest cost domestic coal in the EEC and I see considerable merit in ensuring that some of that benefit is passed on to our own industry especially where it is otherwise likely to go out of business.

Costs

12. In my view the Alcan proposal offers the best solution for Invergordon. At this early stage it is hard to be precise about costs, but on the assumption that they have 300,000 tonnes of coal available from their existing NCB contract beyond the needs of Lynemouth, the additional cost relates to the price paid for 450,000 tonnes of coal, the balance required by Invergordon. Even if the existing contract with NCB can be carried on on present terms, and extra amount could be bought at the Scottish export price of £25 a tonne that would give an average coal price of £19 which is still in my view too high to make the smelter viable.

13. If the 450,000 tonnes were bought at £15 a tonne, the average price overall which I estimate would make the smelter viable, the subsidy as against the export price would be £4.5m a year in addition to the continuing subsidy to Lynemouth.

14. It has to be recognised, however, that the Alcan coal contract contains break clauses to provide for renegotiation of part of the amount in 1983 and the remainder in 1986; and unless terms not greatly different from those in operation at present can be agreed Lynemouth will close down as well as Invergordon. The subsidy implied in supplying Lynemouth with 1m tonnes of coal at £15 a tonne against a total of England export price of £30 is approximately £15m; Invergordon's requirement of 750,000 tonnes, against the Scottish export price would cost £7.5m - a total of £22.5m a year to keep the two smelters in operation. This would lead to requests from NCB for an increase in their EFLs. To measure the subsidy by comparison with NCB export prices would be valid as long as significant coal exports were likely to continue. The government's objective, however, is to bring NCB output into line with demand within a reasonable time. Once this is done, the proper comparison and measure of loss would be NCB's inland prices, currently £40/t, rather than export prices, currently £25-30/t.

15. Such an arrangement would preserve valuable jobs in two sensitive areas. In relative terms the cost is much less than the £16m a year we considered in December for BACo and if linked to the price of aluminium it is likely that it would reduce substantially as the aluminium price recovers from its present extremely depressed level. Alcan, unlike BACo, have made it clear that they would accept a review of the arrangements at the end of five years within the context of a 10-15 year contract.

16. If the Alcan proposal were to collapse and we were to consider Alumax or one of the other companies the costs would relate to the total coal supply for Invergordon which would have to be negotiated without benefit of the existing Alcan contract. On the assumption set out above this would be of the order of £7.5m a year.

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Treasury's View

17. The Treasury have not been able, in the time available, to consider all the public expenditure implications of keeping Invergordon open by providing subsidised coal to Alcan. A decision to do this would have a number of serious implications. It would make it almost impossible to avoid giving much the same order of subsidy to Anglesey Aluminium. It would make it very difficult to resist pressure for parity of treatment from other energy intensive industries, given that it would not be easy to defend treating aluminium smelting as a special case. All such subsidies are expensive in their own right and, additionally, reduce the pressure we are putting on the NCB to close uneconomic pits and to reduce their losses. The Treasury is not, therefore, convinced that the full cost of a decision to re-open the Invergordon smelter is reflected in the proposal for a continuing £22.5 million per annum subsidy to Alcan.

Conclusion

18. I therefore invite my colleagues to agree:-

- (1) that discussions should continue particularly with Alcan but also with other companies interested in taking over Invergordon.
- (2) that a coal based power contract offers the best prospect of re-establishing the smelter on a viable basis and that discussions should proceed with the NCB with the aim of making coal available at a price which would enable electricity to be produced at the target cost of 1p to 1.2p. If necessary we should be prepared to concede adjustments to the NCB's deficit grant and EFL.
- (3) that escalation arrangements should be offered related to the price of aluminium as in Alcan's existing contract.

G.Y.

Scottish Office
Dover House
26 February 1982

Invergordon Power Contract: The Choices OpenA. Nuclear Power

The smelter could receive its power from a nuclear power station under an agreement similar to that in the 1968 contract whereby BACo by meeting the capital cost of a tranche of Hunterston 'B' nuclear power station obtained the right to power supply at the cost of production in that plant.

To acquire the necessary power from Hunterston 'B' a new operator would have to purchase at least 25% of the station. Under the 1968 arrangement BACo's 21 per cent share proved to be inadequate for their needs after the Hunterston power station was downrated from 1200 to 1000 MW and the Scottish Economic Planning Department therefore acquired an additional 5% share to help meet BACo's needs. Strictly even this 26 per cent share is likely to prove inadequate as it did in BACo's case, but in the light of experience of the power station from its present level. Based on the residual value paid to BACo the cost of acquiring a 26 per cent share would be about £100m and at today's interest rates this would represent an annual charge of about £16m. BACo originally received loans for this capital payment at low rates of interest under the Industrial Expansion Act. But these powers no longer apply and there is no way of assisting the new operator under the Industry Act. The Highlands and Islands Development Board (HIDB) has powers which might be used to provide assistance but could not meet anything like the amounts required. The running charges, to judge from recent experience, would be around £21m per annum, giving a total annual cost of perhaps £37m or over 2p per unit. The interest charges would obviously decline in real terms over time, because they are fixed in money terms, but the running charges alone are equal to a target figure of 1.2 per unit. In other words the new operator would have to be given the tranche of Hunterston free of charge, or it would entail a subsidy of at least £16m per annum either by the taxpayer or electricity consumer in Scotland.

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B. Coal

Several methods have been considered by which coal could be used to generate the necessary power for the Invergordon smelter. This approach is attractive because the ALCAN smelter at Lynemouth is operating successfully based on a coal contract, although it is known that part of this contract is due for renegotiation in 1983. A "coal-tolling" arrangement whereby the NCB would supply cheap coal to the new operator to be burnt by SSEB power stations is unlikely to avoid the undue preference clauses in SSEB's statutes. It would appear that this can best be overcome by the purchase or lease by the new operator of appropriate coal fired power station capacity from SSEB and that the HP station at Kincardine would offer the best solution.

Such an arrangement would follow closely the precedent of ALCAN at Lynemouth. It is attractive because it would use SSEB generating capacity which would otherwise be surplus and it would avoid the surplus coal stocks facing NCB. The purchase or lease of the power station because it is marginal to SSEB requirements would not put an intolerable capital burden on the smelter operator but to produce electricity in the price range of 1p - 1.2p per unit would necessitate a supply of cheap coal. At present the Lynemouth smelter operates profitably with NCB coal supplied at about £10/tonne, and it is understood that the maximum price which would be viable to a smelter operator would be about £15/tonne. These prices compare with the £38/tonne charged by NCB for ordinary domestic sales to SSEB; £25/tonne for coal exported under short term contracts from the Scottish coalfield and £30 a tonne for coal exported from the North of England.

If the Invergordon smelter were to be taken over by ALCAN, NCB would be asked to switch such part of the coal supplied under the present contract which is surplus to the needs of the Lynemouth smelter to Scotland for use in the generation of power for Invergordon. It is estimated that this amount is about 350,000 tonnes which would meet 40% of Invergordon's needs. NCB and ALCAN would have to agree either not to invoke the break clauses which apply to half of the contract in 1983 and the other half in 1985 or to renewal on terms which continue to provide power at a price which made the smelter viable. To enable Invergordon to operate they would have to agree terms for the additional coal estimated at 450,000 tonnes needed to make up the balancing 60% of the smelter's requirements. If, however, the Invergordon smelter were to be operated by a company other than ALCAN the total coal requirement of 750,000 tonnes would require to be negotiated between the operating company and NCB.

Electricity prices for aluminium smelting tend to be set internationally by the cost of hydro electric power. This leads to the conclusion that for a smelter to be competitive a power price in the range 1p to 1.2p is the highest that could be afforded. ALCAN's present coal price is thought to produce power at 1p a unit or rather less and £15 a tonne would seem to be the maximum price consistent with viability of the smelter in present conditions. The deficit for the NCB in such a coal arrangement depends upon the alternative market outlets open to them. NCB's surplus of coal in Scotland over the next few years is already expected to be serious as a result of Peterhead power station burning gas liquids, quite apart from the loss of the smelter; and NCB take the view that they cannot in present circumstances rely on securing the closure of pits before the end of their useful life. This means that any sales displaced as a result of the closure would have to be exported; and the deficit grant already agreed for exports in consequence of Peterhead would probably have to be increased.

At present NCB would expect to receive £25 a tonne for exports from the Scottish coalfield but from the better quality coal in the North East of England £30/tonne although of course both of these prices are subject to variation and might tend to be lower the greater the volume exported. On this basis the additional deficit arising from using the coal for the two smelters would be £22.5m, ie

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Scotland

750,000 tonnes coal at £25/tonne export price less £15/tonne paid
by ALCAN = £7.5m

Lynemouth

1,000,000 tonnes coal at £30/tonne export price less £15/tonne paid
by ALCAN = £15.0m

TOTAL £22.5m

ALCAN or any other operator adopting a scheme along these lines would seek an appropriate escalation agreement for power prices. ALCAN's present contract provides for an escalation determined partly by the wholesale price index and partly by aluminium prices. Since the aluminium price is at present very depressed, a significant reduction in the coal price deficit payment could be expected as the market recovers.

C. Hydro Power

Several responsible individuals and bodies have advocated the use of Scotland's unique hydro-electric generating capacity for the benefit either of the smelter or of industry in the Highlands as a whole.

If applied to the smelter this would entail hypothecating to the new operator 1,750m units out of the North of Scotland Hydro-Electric Board's (NSHEB) average annual output of hydro stations over the last three years of around 3,050m units (ie about 60 per cent). The average cost of hydro power in 1982/83 would be put between 0.6p and 1.0p on a historic cost basis for capital charges. Prima facie the hydro option is promising therefore in terms of cost. Unless sufficiently cheap coal could be made available no other option provides power at the necessary cost.

Lack of water resources however makes the hydro system ill suited to base load demand. The hydro stations have been designed with a relatively high rated capacity in the expectation that many of them at least would run for fairly short periods at high levels of output. In this way the Boards avoid having to use expensive coal and oil burning plant at times of peak demand and the substantial start up costs of using such plant for short periods. They therefore already use hydro power when it is economic to do so, and hydro output could not be expanded to meet the demands of a new consumer, the constraint being the quantity of water available. The effect of the proposed arrangement on the system would therefore be that the Boards have to provide an additional 1750m units from their other stations in return for revenue based on hydro costs for the additional 1750m unit sales.

As an estimate, assuming a price to the new operator of 1.2p per unit and an average marginal cost of generation from fossil-fired stations of around 2.7p per unit, the net cost to the Boards of providing the additional supply would be around 1.5p per unit, or £26m per annum. These costs would have to be met from higher tariffs unless the Treasury were prepared to agree to higher EFLs for the Scottish Boards. If they had to be met by NSHEB consumers, it would add around 11% to tariffs. If spread over Scottish consumers as a whole including industry and commerce they would add around 4% to tariffs.

An arrangement of this kind would be impossible without amending the "undue preference" provision in the Board's statutes. The amendment would have to be linked in some way to industrial consumers in the Highlands in order to justify retaining the parallel "undue preference" provisions in the statutes in the electricity supply industry in England and Wales, unless colleagues were willing to embark on amending legislation for the UK as a whole. The general approach might be to add a rider to the existing provisions to the effect that it should not apply to tariffs or agreements for industrial consumers in NSHEB's area, or in a smaller area such as that covered by HADB.

Opposition to this proposal could be expected from:-

- (a) SSEB, whose consumers would have to pay higher electricity charges. At present the Board is content to cross-subsidise NSHEB's higher transmission and distribution costs because it receives part of the benefit of the cheap hydro power. Without the latter it would probably refuse to continue to cross-subsidise the former, putting further pressure on NSHEB's finances;
- (b) consumers outside the area chosen, and possibly domestic consumers within it, because it would be impossible to disguise the true intention of lowering prices to industrial consumers at the expense of all other consumers.