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CABINET

MINISTERIAL COMMITTEE ON ECONOMIC STRATEGY

PRICING POLICY AND A FINANCIAL TARGET FOR THE ELECTRICITY SUPPLY INDUSTRY (ENGLAND AND WALES)

Memorandum by the Secretary of State for Energy

This Paper seeks my colleagues' agreement to proposals for a financial target and associated pricing strategy for the electricity industry in England and Wales.

Electricity Pricing Policy

2 Electricity prices have risen significantly in real terms over recent years. They are however estimated to be still some 5% - 10% below their full economic level (see Annex A); this compares with underpricing of 25% - 50% of domestic gas. I believe that the electricity industry should move to full economic pricing as quickly as possible. The pace at which it could do so depends upon a number of uncertain factors, including fuel costs. I propose that the industry should achieve, or come very close to achieving, full economic pricing by the end of the PESC period. It will, however, be important to ensure that the correction of this underpricing does not artificially hinder

establishing a proper economic relationship between electricity and domestic gas prices. My proposals therefore on electricity need to be considered alongside those for gas (E(79) 51) and are linked with the decisions we take on domestic gas pricing.

Financial Target for the Industry

3 In setting a financial target for the industry we must have regard to:-

i) the need for the industry to earn a proper return on its assets;

ii) the effect of price rises on new growth - too rapid a rise could unjustifiably reduce growth (1½%-2% pa currently forecast);

iii) public expenditure considerations.

4 The industry have proposed a 5 year target on a current cost accounting (CCA) basis. I believe however that the target should be for 3 years rather than 5 given the uncertainty over some of the industry's key assumptions (See Annex B). The target would, of course, be subject to review if there were any major chang and would be agreed in consultation with Treasury Ministers.

5 I suggest the 3 year target (1980/81 - 1982/83) should be on a CCA basis of a net return on revalued assets of 1½% in 1980/81, rising by ½% pa to 2½% in 1982/83. These figures, which are summarised in Annex C, are equivalent to a return on average net assets on a historic cost basis of 13% in 1980/81 rising to 17.5% in 1982/83. (This compares with 9% in 1979/80).

Pricing Proposals

6 Electricity prices are chiefly determined by fuel costs and salaries (which constitute 50% and 17% respectively of total revenue costs). As Annex B shows, the industry have assumed high real fuel price increases over the next few years. Their estimates are higher than those of the Department. They are not however implausible and there are very real uncertainties in attempting to predict future fuel costs. In 1980/81 the difference between the assumptions would not reduce the price increase the industry believe necessary by more than 1% -2%. Against this the industry have taken what could well turn out to be optimistic assumptions on pay.

7 The price increases associated with the financial target, given at Annex C, are designed to recover the industry's costs, and to make a steady advance to full economic pricing. Of the price increase forecast from April 1980 of 22.3% just under 20% is required to recover costs (12% for fuel). The remainder, about 2½%, is a first step towards correcting underpricing. In subsequent years, allowing for inflation of 12% in 1980/81, 10%pathereafter, and real increases in fuel costs, there would be price rises of about 15%pa of which 1% would represent further progress towards full economic pricing. By the end of the PESC period at least half and possibly the full amount of underpricing (5% - 10%) would have been corrected.

1980/81 Cash Limit

8 The net repayment figures for 1981/82 - 1983/84 shown in Annex C accommodate figures I have already discussed with the Chief Secretary. In 1980/81 the industry are showing a net

borrowing requirement of £50 million as against the net repayment of £33m which has been included in the PESC figures. I am still exploring the scope for further economies in the industry's controllable expenditure. The room for manoeuvre is, however, very limited. If the net repayment can only be achieved through prices it would be necessary to add a further 1½% to the 22.3% forecast for April 1980.

Presentational Aspects

9 A price rise of over 20% next April coming on top of a cumulative rise of 18% in 1979/80 presents obvious political difficulties. It is bound to be unpopular and there will be criticism, particularly, in respect of the effect on poor electricity consumers (electricity constitutes a larger part of consumers expenditure than gas and adds .029 to the RPI per percentage point, as compared with .016 for gas). We shall need to emphasise the assistance we are providing through supplementary benefit heating additions to those in particular need. The very large profits on a historic cost basis (£460m in 1980/81 rising to over £1 billion in later years) resulting from adopting the proposed financial target will also need to be placed in the context of the industry's need to generate funds to replace its assets and finance, eg the projected nuclear programme.

10 For both public expenditure and energy policy reasons we need to move to full economic pricing as fast as is practicable. Unless we grasp the nettle now, we will only be storing trouble up for the future with the prospect of even sharper price increases later.

Conclusions

11 There are very real uncertainties in respect both of fuel and wages. I believe however that these proposals offer the fastest practicable progress towards full economic pricing taking account of those uncertainties, and of the industry's future financing needs.

12 I therefore invite my colleagues:

(i) to endorse these pricing proposals and to note that electricity prices are expected to rise in money terms by about 22% in April 1980 (with a possible further increase of 1½% in respect of the cash limit); and allowing for inflation and real increases in the industry's fuel costs by approximately 15% pa in subsequent years.

(ii) to endorse in principle the proposals for a financial target, and note my intention to agree a target on these lines for a period of three years, in consultation with Treasury Ministers, which is consistent with our pricing decisions.

(iii) to agree that the industry's financial target should be announced together with that of the BGC.

D.A.R.H.

Department of Energy

15th October 1979

ANNEX A

THE DEGREE OF UNDERPRICING OF ELECTRICITY

To be fully economic, electricity prices should be determined by the long run marginal costs (LRMC) of supply, ie the costs of adding a unit of output on a permanent basis to meet demand. These include not only the variable cost of producing an additional unit (mainly the cost of fuel) but also the fixed costs of the additional capacity required. They also include the Government's Required Rate of Return (RRR) of 5% on new investment.

2 By setting prices equal to marginal costs, consumers are presented with the real economic costs of their present and future consumption and clear signals for their choice of plant, domestic appliances etc. Given rational behaviour, resources will therefore be efficiently allocated. When fully applied, LRMC pricing determines the level of final prices to the consumer and it underlies the structure of electricity tariffs.

3 For another 10 years at least, the additional unit of output will be provided by fossil fuelled plant. The following calculations, made at prices prevailing in April 1979, are based on the cost of modern coal-fired plant.

	p/kWh	
Capital cost of coal generating plant	0.731	
Fixed cost of operating plant	0.068	
Capital cost of transmission	0.120	
Cost of fuel	1.628	
System savings from use of new plant	-0.589	
Variable transmission cost	0.027	
	1.985	
Transmission losses	0.050	
Administration etc	0.063	
	2.098	(at April 1979 prices)
Addition because of increases in non-fuel costs since April 1979	0.063	
	2.161	

This compares with an actual level of 2.018p/kWh. Thus the estimate puts the LRMC price 7% higher than the actual price.

4 There are uncertainties surrounding these figures. For example the capital costs include an allowance for interest during a construction period of 6 years. If this is too optimistic, the capital cost would be higher. Taking account of such factors, it is estimated that a range of 5-10% underpricing can be considered to cover the likely degree of uncertainty.

Department of Energy
October 1979

ANNEX B

KEY DETERMINANTS OF ELECTRICITY PRICES

Apart from requirements of the industry's financial regime, electricity prices are chiefly determined by fuel costs (50% of total revenue costs) and salaries (17%). Of fuel costs, coal accounts for 70%, oil for 20% and nuclear for 10%.

2 It is extremely difficult to predict the future movements of fuel prices. The industry assume that there will be substantial rises in the industry's real fuel costs over the next five years. In 1980/81 they assume that coal prices will rise in the Spring in line with the then inflation rate and again later in the year by 7½%. They also assume an oil price rise in money terms of well over 20%. In subsequent years general inflation of 12% in 1980/81, and 10% pa thereafter is assumed, with real fuel price increases of the order of 5% pa. These estimates are not implausible although they are higher than the Department is assuming. If the Department's assumptions were substituted for the industry assumptions, the effect would be to reduce the electricity price rises in Annex C by between 1% -2% pa from 1981/82 - 1984/85.

3 Likewise, in 1980/81, if only a single (Spring) coal price rise of 17% were assumed, the April electricity price rise would come down by about 1½%. (If, however, tariffs were set on the basis of a single, spring rise and coal prices did go up again in the autumn by 7½%, a further electricity price rise of about 5% would be required for domestic customers if the extra costs were to be recovered within what remained of the financial year).

4 On pay, the industry's figures for 1980/81 assume an 18% money increase in earnings from the spring 1980 pay settlement dates. Of this, 6% represents the balance of the staged 1979 settlement and it must be doubtful if the remaining 12% will be enough to secure a settlement in the current pay round. The

industry has already reduced its work force considerably over recent years and the scope for further savings to offset the 1980 pay increase must be small. The cautious fuel price assumptions made for 1980/81 need to be offset against what could prove an over-optimistic assumption on the pay settlement which can be achieved.

ESI (ENGLAND AND WALES) FINANCIAL TARGET 1980/81 - 1982/83; AND PRICE PROPOSALS

Outturn prices

Year	Present Accounting Conventions(1)		Current Cost Accounts(2)		Net £m Borrowing	Price(3) Increase %
	Return on average Net assets %	Profit after Interest £m	Return on average Net assets %	Profit after Interest £m		
1979/80	9.2	180	0.5	(-) 350	(-) 72	18.5(4)
1980/81	13.1	460	1.5	(-) 170	50	22.3(5)
1981/82	14.8	700	2.0	(-) 40	(-) 40	14.9
1982/83	17.5	1100	2.5	180	(-)130	15.1
1983/84	19.7	1570	3.0	440	(-)420	14.4
1984/85	20.2	1980	3.5	710	(-)280	12.8

Notes:

(1) Historic cost accounting including 40% supplementary depreciation. Assets are valued net of historic cost depreciation but without the 40% supplement.

(2) Generation assets valued on a modern equivalent asset basis; distribution assets valued using appropriate indices. Profit after interest without adjustment for gearing.

(3) The industry's general inflation assumptions are:

March 1980 on March 1979:	17%
March 1981 on March 1980:	12%
March 1982 on March 1981 and each year thereafter:	10% pa

(4) Cumulative; reflecting both April and September 1979 price increases.

(5) Increases assumed from April each year.

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