Prime Minister

I think I ought to draw your attention to the problems we face on gas and electricity prices, in the light of the profits reported by these two industries. As you will have seen, in the case of the gas industry the controversy about profits and prices has centred on BGC's proposed 4% increase for domestic consumers from 1 October, and on industry's concern that the price freeze for industry may not be extended beyond the 3 months already announced by BGC. In the case of the electricity industry the argument has been about whether there should be a rebate on account of 1982/3 profits, and an extension of the present price freeze to cover 1984/5.

I believe we are at a stage in the counter-inflation programme where we badly need to see nationalised industry price increases kept to a minimum in order to help keep down the general rate of inflation. In 1979 - 1982 nationalised industry prices were a strong upward influence on inflation. We need as much relief as we can get from that now in order to reduce wage pressures, help competitiveness and assist employment.

The way in which inflation has been taken into account in implementing the programme of three price increases of 10% in real terms for domestic gas has led, in a period of falling inflation, to gas tariffs being as much as 57% higher in real terms (100% in money terms) than they were in 1979/80. In spite of the effect of recession on demand, and of the use of very conservative accounting practices, the gas and electricity industries are now beginning to make big accounting profits.

In 1982/3 the electricity industry declared profits of £868m before, and £332m after interest. These profits are at present forecast to be lower in later years, mainly because of the 1983/4 price freeze; but that is on rather pessimistic assumptions about GDP growth, electricity demand, inflation and coal prices. Repayments of debt to the Exchequer over the next three years are put at nearly £2bn. The gas industry, which has no long term debt, reported profits for 1982/3 of £663m before tax and interest; and of £188m after tax, adjustments for

short term interest and a once-for-all £300m write off against profits for the oil assets we are privatising. The gas levy for 1982/3 was £523m. Forecast gas profits before tax and interest rise from about £500m in 1983/4 and 1984/5 to over £850m in 1986/7; and, after tax and interest adjustments, are in the £350m to £400m area.

Thus we risk exposure politically year by year to successive large profit declarations, accompanied by announcements of further price increases. In the case of the electricity industry the controversy now would have been much greater had not my predecessor, with the agreement of Geoffrey Howe, decided to freeze electricity prices in 1983/4 and to say that in 1984/5 any increase would be below the rate of inflation.

All these considerations could be said to point to holding gas price increases in 1983/4 and 1984/5 to a level which would be well below the rate of inflation; and in the case of electricity to extending the freeze to 1984/5. That would represent some movement from last year's E(NI) decision that domestic gas prices should rise in line with inflation, but the large accounting profits had not been declared when that decision was taken. This course would minimise political controversy. It would be consistent with the long term case for gas prices to rise relative to electricity prices. But it would of course mean that the Chancellor could not look to the gas and electricity industries for so much of a contribution to the reduction of the PSBR.

Each 1% change in the October domestic gas price increase (which also applies to small businesses) affects the PSBR by about £16m in 1983/4 and about £50m in 1984/5. A three month's extension of the industrial contract price freeze would, on present forecasts, reduce BGC's profits by about £25m and avoid a 6½% increase on firm and a 10% increase on interruptible supplies for that period; while adding, on plausible assumptions, about £17m to the PSBR in 1983/4 and about £60m in 1984/5. The present assumption about electricity prices in 1984/5 is that there will be an increase in the range of 4% to 5% (1½% below the rate of inflation); or perhaps somewhat less according to the price the CEGB finally pays the NCB for coal. Each 1% reduction in this price increase in England and Wales would cost the PSBR £70m in 1984/5.

My concern is that it would be contrary to the best interests of our policies if we were to fall into a position where we were looking to gas and electricity profits as a source of tax revenue. If we want a low inflation economy which endures and is consistent with a recovery in employment, we shall have to keep down the costs of inputs to industry, and certainly not to tax them. As I understand it, that has been the policy behind successive reductions of the national insurance surcharge.

Of course, increased efficiency in these nationalised industries is essential to keep down prices. Both the gas and electricity industries have made contributions to profits through increased efficiency and have exceeded their financial/performance targets. I shall maintain the pressure. But increased efficiency alone cannot remove the need for price increases if the underlying policy is to make such increases in the interests of the PSBR.

On broad political and economic grounds I would prefer an approach on the lines of paragraph 6 above. I think it would be asking for trouble politically to do as the Chancellor has now proposed and seek to increase the 4% proposed (and known to be proposed) by British Gas to 5%. But I seek your guidance on whether it is right to use this particular route for PSBR reduction by going even as far as the 4%.

Although the Gas Corporation's proposals have been widely anticipated, they are due to make a formal board decision on them on 17 August, and would normally make an immediate announcement. I have asked them to defer any announcement however.

I am copying this minute to the Chancellor of the Exchequer and to the Secretaries of State for Trade and Industry and Scotland.

CBrodie

Approved by the Secretary of State for Energy
and signed in his absence.

Aug 83

16 AUG 1988

(B)

Treasury Chambers, Parliament Street, SWIP 3AG
01-233 3000

PRIME MINISTER

ENERGY PRICES

Peter Walker has written to you suggesting gas price increases in 1983-84 and 1984-85 should be held to a level well below the rate of inflation and that the freeze on electricity prices should be extended to 1984-85. I am sure this would be quite wrong. Rather than helping our economic policies as he suggests, it would make our job of reducing the PSBR much more difficult and we should be giving the wrong signals to energy users.

2. Peter argues that public criticism over the level of profits recently announced by the gas and electricity industries and the need to keep down the rate of inflation mean that energy price increases need to be restrained, even at the expense of increases in the PSBR. In fact, taking account of its size, the electricity industry's profits have been low generally compared with the private sector. And BGC's profits, while far from excessive, are due to the fact that over half BGC's gas supplies come from cheap long-term contracts negotiated in the 1960s. On its most recent purchases of gas, it is actually making a loss at current selling prices. Clearly we have an argument to win in public over nationalised industry profits but the answer is not to restrain prices to an uneconomic level.

3. Nor do I consider constraining energy prices in the short term an effective way of permanently reducing inflation. Previous Administrations of both Parties have discovered to their cost that subsidising prices below economic levels only stores up trouble for the future when they have, inevitably, to rise to their correct levels. This is precisely why we have had to increase domestic gas prices so much since 1979.

/4. The key to

4. The key to our approach to energy prices has been to move towards economic levels. Where fuels are marketed internationally, the world price provides a clear guide. In other cases, prices need to be set to reflect the cost of supplying an additional unit of fuel. If consumers and producers of energy are to behave as in a free market, all fuels need to be priced at economic levels if distortions across the whole energy sector are to be avoided.

5. We agreed last autumn to continue with economic pricing for electricity, based on revised forecasts of costs of supply. The price freeze in 1983-84 and the planned real reductions of 1½ per cent in 1984-85 followed. Peter Walker bases his argument for a freeze not on costs but on past profits. With the freeze, this year's profits will be much lower anyway. The effect of his suggestion would be to plunge the ESI into substantial losses.

6. We do not have to take decisions on electricity now. I suggest that officials examine with the industries precisely how marginal costs will be affected by efficiency gains and real reductions in average coal prices. We can then look at prices and external finance together in the autumn.

7. So far as gas is concerned, economic principles clearly point to higher prices. There is a world market price for gas, which is what BGC has to pay for new supplies. By selling below this price (as BGC is currently doing), BGC is selling gas not merely uneconomically but actually at a loss. No private sector business would do this. If continued, it would lead to excessive consumption of expensive imported gas at the expense of electricity at a time of massive surplus capacity in electricity generation. And, since world market prices for gas are rising, it makes the adjustment later on more painful.

8. Higher energy prices are never easy to defend publicly, but I believe there is a strong case, both economically and financially,

/for gas prices

for gas prices to rise in real terms. I should be happy to develop this. The issue is important, not least because the view we take on future gas prices must underlie our consideration of BGC's Corporate Plan (which is now overdue). Until it is resolved, it would be advisable, as I told Peter Walker, to use the neutral assumption of maintaining domestic prices in real terms for the purpose of the October price increase. Since we are forecasting an annual rate of inflation of around 5 per cent in the autumn, we need a 5 per cent increase in domestic gas prices.

9. Finally, I think it is important to be clear that setting prices at economic levels does not represent a tax on energy consumers, as Peter suggests. It is neutral in economic terms, since it reflects the cost of production. On the other hand, restraining gas prices below economic levels would represent a subsidy to the gas consumer from the general taxpayer. We should not forget that one in four families is unable to obtain gas.

10. I am copying this to Peter Walker, Cecil Parkinson and George Younger.

Margaret O'Hara

N.L.
23 August 1983

(approved by the Chancellor and signed in his absence)

PRIME MINISTER

ENERGY PRICES

The minute at Flag A from Peter Walker suggests that gas price increases in 1983/84 and 1984/85 should be held well below the rate of inflation and that the freeze on electricity prices should be extended to 1984/85. He argues this on two grounds: first, that the profits of the gas and electricity industries will otherwise cause political controversy; second, that keeping nationalised industry price increases to a minimum is necessary at this stage of the Government's "counter-inflation programme".

The minute at Flag B from the Chancellor of the Exchequer argues that the Government should continue to allow energy prices to move towards economic levels, and that they should be set either by reference to the prevailing world price or to reflect the cost of supplying an additional unit of fuel. The Chancellor argues that this means in practice:

(a) that the freeze on electricity prices should not be extended into 1984/85, but that electricity prices and external finance should be considered together later in the autumn after further studies by officials; and

(b) that gas prices should be allowed to rise by at least 5 per cent in October (rather than the 4 per cent proposed by BGC), although he feels that there is in fact a strong case for allowing gas prices to rise in real terms.

It seems clear that we will need a meeting on energy prices to resolve this disagreement. Normally the Gas Corporation would have announced their proposed price rise following the Board Meeting on 17 August, but they have been asked to defer

/ an announcement

an announcement; in view of this, an early meeting seems desirable. Would you like to make this a meeting of E(NI), or would you prefer a smaller ad hoc meeting?

GWSR

I think an ad hoc meeting would be better.

[illegible]

24 August 1983

CONFIDENTIAL

bcc: MR. FLESHER
to arrange
early meeting

10 DOWNING STREET

From the Private Secretary

26 August, 1983

BF for Meeting 13/9 P.

Energy Prices

The Prime Minister has seen your Secretary of State's recent minute. She has also seen the Chancellor of the Exchequer's minute of 23 August. She would like to discuss the issues raised in these minutes with your Secretary of State, the Chancellor of the Exchequer and the other Ministers to whom your Secretary of State's minute was copied. We will be in touch to fix an early meeting.

I am coping this to Margaret O'Mara (H.M. Treasury), Jonathan Spencer (Department of Trade and Industry), Muir Russell (Scottish Office) and Richard Hatfield (Cabinet Office).

W. F. S. RICKETT

J. D. West, Esq.,
Department of Energy

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(A)

PRIME MINISTER

ENERGY PRICES

Peter Walker's minute to you is in effect a plea to abandon the very basis of our policy. The argument betrays a remarkable innocence of the basic commonsense of economics, a state of mind not unusual among our political opponents, but now mercifully rare among Ministers. But even more important, I believe it would be a serious mistake politically to depart from the principles to which we have adhered through the most difficult periods over the past two or three years.

The economic principles of pricing are simple. Where there is an international market for an energy source, we should charge the international price. This we do with great success in oil.

Where there are no sales to overseas customers, because of past political decisions, then it is argued we should charge the total unit production costs of the most expensive source. Thus in the case of gas, the price it is said should be the cost in the Frigg field. But in an expanding industry this will be too low - and probably far too low. Indeed it is easy to see that we should charge more than the Frigg cost since it is certain that it would be profitable for the general energy consumer, and producer, to develop more gas fields which have a higher cost than Frigg. Charging a price equal to Frigg will preclude that profitable development.

So in principle our gas prices should conform to international prices (that is to say European import prices less any additional transport cost) even though we have been so far precluded from selling our piped gas to European customers. That is the real export opportunity fore-gone and that should be the basis of our pricing system. We should en-sure additional fields exploited provided that their cost is less than this international price.

If we keep our energy prices at the level of the international market, then we shall be pursuing the best possible pricing policy and we shall maximise both the benefits from our energy sources and all our other resources.

The only significant area where I suspect our energy prices may be a little too high is in the generation component (the non-tradeable

/component)

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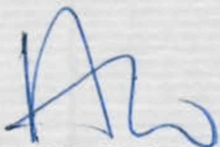
component) of electricity prices. Due to the vast errors that have been made in investment in generating stations we have an over-supply of them. There are good arguments for charging rather low prices for the generating component of electricity so that some stations do not stand wastefully under-utilized. Nigel Lawson had this well in hand as a consequence of the Cooper Lybrand Report and the debate which ensued. There is certainly a case for some readjustment of electricity prices. But there is no case at all for not pursuing our policy on gas prices. They should be raised.

Peter Walker's paper has all the elements of a plea for protection. We have seen the disastrous consequences of protection in many fields, not least in agriculture, coal mining and shipbuilding. He commits an elementary but common error in interpreting the normal profits, rent and royalties of the energy industries as a tax.

It is one of the great triumphs of the last government to have successfully imposed the efficient prices for energy. Your reputation for firmness, consistency and honesty in policy has been much admired. It would be a great tragedy if we deviated into the paths of subsidy and protection.

[I have not discussed the alleged effects of subsidies on inflation. I have put the arguments so often before that I cannot conceive that the absurdity of the propositions is not widely recognised.]



ALAN WALTERS
8 September 1983

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BGC COST STRUCTURE 1982/83

	Total £m	p/therm
Gas Costs	1916	11.6
Operating Costs	2142	13.0
Total BGC Costs	4058	24.6
Gas Levy and PRT (£4m)	527	3.2
Taxation	208	1.3
Cash contribution (negative EFR)	230	1.4
Total Govt Take	965	5.9
Total Costs	5023	30.5

Average price for gas sold and used 32.1

Source: Report and Accounts

Revised Table A

BGC'S GAS PRICES

(as in Corporate Plan)

p per therm (1982/83 prices)

		1982-83	1983-84	1987-88
(A)	Domestic			
	Current average cost of gas	11.7	12.6	16.0
	Onshore marginal costs	20.5	20.5	20.5
	Total cost	32.2	33.1	36.5
	Planned price	38.0	37.8	39.0
	Profit	5.8	4.7	2.5
(B)	Non-Domestic Tariff			
	Current average cost of gas	11.7	12.6	16.0
	Onshore marginal costs	15.5	15.5	15.5
	Total cost	27.2	28.1	31.5
	Planned price	33.5	33.3	34.0
	Profit	6.3	5.2	2.5
(C)	Firm Contract			
	Current average cost of gas	11.7	12.6	16.0
	Onshore marginal costs	10.5	10.5	10.5
	Total cost	22.2	23.1	26.5
	Planned price	30.5	29.7	29.3
	Profit	8.3	6.6	2.8
(D)	Interruptible Contract			
	Current average cost of gas	11.7	12.6	16.0
	Onshore marginal costs	3.5	3.5	3.5
	Total cost	15.2	16.1	19.5
	Planned price	25.5	24.6	24.9
	Profit	10.3	8.5	5.4
	Excludes gas levy	3.2	2.9	1.8

4.47 CONFIDENTIAL

cc AW

Prime Minister

MES 9/9

Treasury Chambers, Parliament Street, SWIP 3AG
01-233 3000

PRIME MINISTER

ENERGY PRICES

We are due to meet next Tuesday to discuss energy prices. In my minute to you of 23 August, I argued against Peter Walker's proposal that there should be no increase in the price of domestic gas after October and that the freeze on electricity prices should be extended to 1984-85. On the latter, I do not believe decisions need to be taken now but officials should be asked to examine the finances of the electricity industry and the way marginal costs are developing, taking into account the recent agreement on coal prices between the NCB and the CEGB.

2. I stated in my minute that there is a strong case for gas prices to rise in real terms and I offered to develop the arguments further. I attach a paper which considers the general principles we should be following - indeed have been following - on the prices of different fuels and why these point to higher real gas prices. Against this background we should certainly not be allowing real gas prices to fall in the short term, thereby yielding some of the ground won at great cost in the last Parliament.

3. I am copying this to Peter Walker, Cecil Parkinson and George Younger.

Margaret O'Mara

(N.L.)

9 September 1983

(approved by the Chancellor and signed in his absence)

GAS PRICING POLICY

Note by the Treasury

Introduction

This note provides the background to decisions which are needed on BGC's domestic gas price increase this autumn and on the direction gas prices should follow over the medium term.

General principles

2. The approach which this administration have adopted on energy prices is that they should be set at economic levels. When a fuel eg oil, is traded internationally the price set in the world market provides a clear guide. When the oil price rose, it was accepted that domestic prices should rise and that this was equally true when the UK was an importer, as in 1973-74, or a net exporter, as after 1979. In this way, consumers are given the right signals about their use of energy, paying for each extra unit of oil what it costs to import or what is forgone in exports. Likewise, producers make their development plans on the basis of the prices they will earn in the open market.

3. Both coal and gas are also traded internationally though less freely than oil. Nevertheless, international prices can provide a guide to domestic pricing. In the case of gas, imports now account for a substantial proportion (about 25 per cent) of UK supply and so the price of those imports provides a clear marker for what it costs to acquire additional (marginal) supplies. In the case of coal, imports are limited and it is more difficult to establish representative prices. Nevertheless, the recent agreement reached between the NCB and the CEGB does seek to align the price of coal for power stations more closely to import parity.

4. In the case of electricity, there is only limited trading and so efforts have been made to establish a system for setting prices which would mirror the results of competitive forces. It has been recognised that this is best done if prices reflect marginal costs.

5. A benefit of relating the price of fuels to marginal costs (whether these are derived from looking at the costs of acquiring new supplies on the world market or, as in the case of electricity, by looking at the structure of costs in the industry itself), is that consumers base their decisions to consume an extra unit of fuel on the price which reflects what that extra unit costs to produce. If consumers and producers of energy are to behave as in a free

market, all fuels need to be correctly priced (a significant divergence from economic levels of even one will distort decisions across the whole sector).

6. Defining marginal costs is not easy, partly because the costs are difficult to identify, and partly because there is frequently dispute about the precise concept. Successive White Papers have argued that prices should cover long-run marginal costs, ie not just those costs that vary in the short run as output fluctuates but also the capital cost of meeting expanding demand. The latter should include the 5 per cent required rate of return on that capital.

7. Since 1979, significant adjustments have been made to the prices of different fuels. Gas prices, particularly to the domestic consumer, had been held down while the prices of competing fuels rose, and no longer reflected the full cost of acquiring new supplies. A painful but necessary adjustment was undertaken. Also last year, adjustments were made to the Bulk Supply Tariff for electricity so that it reflected the true cost structures more accurately. A standstill in average electricity prices was instituted to last until next spring. Despite recent adjustments, however, a major imbalance in the price of gas remains.

Gas Pricing

8. Economic principles suggest that the most sensible policy to follow for gas prices is one where customers are charged the cost of acquiring new supplies. This is presently given by the price BGC has to pay for imports on the open market, and in current circumstances is best represented by the price being paid for Frigg gas of around 22p per therm. The negotiations for gas from the Sleipner field indicate that the price of gas to replace Frigg in the 1990s will be even higher. The price at which domestic gas has been acquired has been depressed by the ban on exports and the fact that until recently BGC was a monopoly buyer, but it too is rising and would rise to the same level as imports if the ban on exports were lifted. (One of the effects of offering less for domestic gas than for imports is that the development of UK resources is delayed in favour of imports.)

9. Figures supplied by BGC in the course of examination of its Corporate Plan indicate that at current selling prices, BGC is not covering the full costs of acquiring and marketing Frigg gas. They show that BGC is selling Frigg gas at a loss (though BGC does not accept this interpretation of the figures, as it argues that in addition to covering the cost of the gas itself, the selling price needs to cover only those costs which are immediately variable in the short run). Furthermore, the gap between the planned selling prices and the cost of new supplies is expected to increase over the next five years. The figures are set out in Annex A. As part of the programme of external investigations into the nationalised industries, Deloittes were asked to examine the efficiency of BGC. Their study, which has just been

published, reached very similar conclusions. Annex B reproduces their analysis. They concluded in paragraph 3.29 that

> "In 1982-83 sales of gas in all markets, apart from the interruptible market, were taking place at prices which were insufficient to meet marginal costs and thus the costs of maintaining supply."

In 1982-83, the shortfall in the domestic market was about 4½p per term and with the current freeze on gas, this can be expected to have increased.

10. When, in the case of oil, the price rose, the surplus earned by UK producers was syphoned off by PRT to the benefit to the community as a whole. In the case of gas, the price of earlier contracts has risen under indexation arrangements, but much more slowly than the cost of acquiring new gas. This means that there is a potential surplus or economic rent which arises from the difference between the old and the new contracts. Part of the benefit of this rent has come to the Exchequer through the gas levy but by far the larger part has gone to BGC and its customers. What is happening in effect is that BGC takes the view that it should charge only enough to cover average costs plus what it needs to earn the target return which has been set by Government.

11. This policy has several harmful effects:-

(i) It encourages excessive use of gas which must be met by high cost imports;

(ii) The expansion of the gas market has contributed to excess capacity in electricity generation and coal.

(iii) If continued, it would build up demand so that large and expensive synthetic gas plants - dependent on coal - would eventually be required to meet it.

(iv) It runs the risk of a painful adjustment of prices later on.

(v) The economic rent arising on earlier contracts subsidises BGC's customers through low prices rather than being distributed to the community as a whole through lower taxes. (This is particularly unfair to those in rural areas who are not connected to the gas network. One in four families is unable to obtain gas.)

12. Deloittes also noted the adverse consequences of current pricing policies:

"As current prices fail to reflect the replacement cost of gas plus marginal non-gas costs of supply, there is a danger that the gas reserves are being depleted too quickly and that excessive capacity will be provided." (paragraph 15.20)
"This in turn may lead to over investment in capacity and it may also have an adverse effect on the allocation of resources in energy markets as a whole."

13. There is thus a strong economic and financial case for higher gas prices. To bring prices charged to consumers up to the cost of new supplies by 1987-88 implies real increases from now on of 6-7 per cent a year. To prevent the gap which existed in 1982-83 getting larger implies increases of 4-6 per cent a year. With inflation forecast at 5 per cent, this implies nominal increases of around 10 per cent a year. Compared with BGC's plans for constant real prices, increases of 5 per cent a year in real terms, starting in January 1984, would generate the following increased cash flow for BGC:

£ million 1983-84 prices

	1984-85	1985-86	1986-87	1987-88
Increased cash flow	250	500	750	1000

14. BGC's Corporate Plan projects CCA profits of £500 million rising to £750 million a year, a rate of return of around 4 per cent. If the levy were unchanged, profits would thus be more than doubled. BGC has already repaid all its debts and, in the absence of an increase in the levy, would become an even greater net lender to the NLF. The policy followed hitherto has been to raise the levy so that the surplus on earlier contracts comes back to the taxpayer, as it does in the case of oil through PRT. However, the choice between a higher levy or higher profits is a difficult one (not least from a political point of view) and needs to be considered carefully.

15. It can be seen that either way the benefits to the Exchequer are substantial. If BGC's profits were allowed to increase, public expenditure would be reduced. If the levy were raised, there would be no reduction in public expenditure but receipts would increase. But the case for adjusted gas prices is not made primarily on public finance grounds but on the need to adjust the prices of different fuels to reflect their changing cost structures. At the

same time as gas prices would be rising, coal prices should be falling in real terms. The principles of economic pricing which point to higher prices for gas mean matching lower import prices for coal. The agreement recently reached between the NCB and the CEGB seeks to align the price of coal for power stations more closely on the price of imports. In turn, electricity prices should be either constant or falling slightly in real terms.

16. Our success in reducing inflation has been based on attacking the root cause of the disease not on artificially holding down nationalised industry prices. Indeed, as recent history shows, when such prices were held down, inflation rose, whereas our efforts to bring prices to economic levels have not prevented inflation from falling. It is doubtful if keeping gas prices lower would have any significant impact on the RPI. Even on a mechanical calculation, a 20 per cent real increase in domestic gas prices over four years could add only about 0.1 per cent a year to the RPI.

17. Higher gas prices will undoubtedly be unpopular as the recent outcry over BGC's profits indicates. This emphasises the importance of tackling this problem early in the life of the Parliament.

Conclusions

18. (i) Energy prices should be set in a way which reflects the different costs of supply of each fuel. This is best done by relating prices to marginal costs. In this way consumers pay for additional units what those units cost to supply;

(ii) There is a major imbalance in fuel prices which distorts the whole energy sector, leading to excess demand for gas and underutilisation of existing capacity in electricity generation;

(iii) To prevent the gap between prices charged for gas and the economic price getting larger, increases of 4-6 per cent real (say 10 per cent nominal) are needed each year starting in January 1984;

(iv) The same principles point to lower real coal and in turn lower real electricity prices.

H M TREASURY

9 September 1983

TABLE A

BGC'S GAS PRICES
(as in Corporate Plan)

	1982-83	1983-84	1987-88
		p per therm (1982/83 prices)	
(A) Domestic			
Cost of new supplies[1]	22.0	24.1	27.8
Onshore marginal costs	20.5	20.5	20.5
Total marginal cost	42.5	44.6	48.3
Planned price	38.0	37.8	39.0
Gap	4.5	6.8	9.3
(B) Non-Domestic Tariff			
Cost of new supplies	22.0	24.1	27.8
Onshore marginal costs	15.5	15.5	15.5
Total marginal cost	37.5	39.6	43.3
Planned price	33.5	33.3	34.0
Gap	4.0	6.3	9.3
(C) Firm Contract			
Cost of new supplies	22.0	24.1	27.8
Onshore marginal costs	10.5	10.5	10.5
Total marginal cost	32.5	34.6	38.3
Planned price	30.5	29.7	29.3
Gap	2.0	4.9	9.0
(D) Interruptible Contract			
Cost of new supplies	22.0	24.1	27.8
Onshore marginal costs	3.5	3.5	3.5
Total marginal cost	25.5	27.6	31.3
Planned price	25.5	24.6	24.9
Gap	-	3.0	6.4

[1] currently Frigg

Profit based on Marginal Costs

3.21 The second column in Table 3.12 shows sector margins computed from average revenue less the marginal costs of supplying gas in each sector. The marginal costs are made up of two components:-

(a) marginal gas costs which relate to the purchase of new gas supplies; and

(b) marginal non-gas costs which take into account the additional storage, transmission and distribution costs involved in bringing new supplies from the terminal to the final consumer.

3.22 Average gas costs take into account historic costs and are therefore influenced by the original lower price contracts, whereas marginal gas costs reflect the current replacement cost of gas. Average gas costs will of course lag behind marginal costs. Marginal gas costs used in Table 3.12 are based on the actual cost to BGC of importing gas from the Norwegian Frigg Field. This is amongst the most expensive gas purchased by BGC and hence provides an estimate of the current replacement cost of gas to BGC. [Future supplies of gas are likely to be contracted at prices per therm which are at least equal to this amount].

3.23 Estimated marginal non-gas cost per therm includes the revenue expenditure associated with taking on additional demand in each market sector, together with capital depreciation, the cost of additional working capital requirements and the cost of unaccounted for gas (each attributed to market sectors on a cost per therm basis). Marginal revenue expenditure is estimated by BGC to be equivalent to approximately two thirds of average revenue expenditure for each market. This estimate is based partly on analysis of the relationship between changes in sales volume and total costs and partly on cross-sectional analysis of Regional costs in relation to Regional sales.

3.24 A further item is included in the marginal cost calculations to cover the cost of matching the load factor of demand in each sector to the higher load factor of gas as supplied. The figures in Table 3.12 are based on an 80% load factor of supply, which is approximately equal to the actual load factor of gas drawn from the Norwegian Frigg Field. This is taken by BGC to be the best option in terms of minimising overall cost of supply, based on its assessment of the additional offer price of lower load factor gas set against the incremental cost of achieving lower load factors of supply to the final consumer through additional investment in storage facilities.

3.25 For the purpose of this analysis, it has been assumed that the marginal load relates to an increase in customer numbers with current average levels of consumption rather than to an increase in overall average gas consumption by existing gas customers. This assumption is likely to have only a small effect in terms of marginal profitability, since in our calculations marginal costs are compared with average revenue, which includes the standing charge element of gas pricing.

	ESTIMATED AVERAGE PROFIT(1)		ESTIMATED PROFIT USING MARGINAL COSTS(2)	
	p/therm (current prices)	As % of Costs	p/therm (current prices)	As % of Costs
1980/81				
DOMESTIC MARKET	(0.5)	(2)	(5.0)	(17)
NON-DOMESTIC MARKET				
Tariff	6.0	29		
Firm Contract	7.7	43		
Interruptible	7.0	49		
Total non-domestic	6.9	40	3.3	16
TOTAL REGIONAL SALES	2.6	12	(1.5)	(6)
[HQ Contracts	(0.7)	(8)	n/a	n/a
TOTAL SALES	2.3	11	n/a	n/a]
1981/82				
DOMESTIC MARKET	0.1	0	(4.6)	(13)
NON-DOMESTIC MARKET				
Tariff	2.1	8		
Firm Contract	5.8	25		
Interruptible	6.0	32		
Total non-domestic	4.9	22	0.9	3
TOTAL REGIONAL SALES	2.1	8	(2.3)	(7)
[HQ Contracts	0	0	n/a	n/a
TOTAL SALES	1.9	8	n/a	n/a]
1982/83				
DOMESTIC MARKET	4.0	12	(1.8)	(5)
NON-DOMESTIC MARKET				
Tariff	3.4	12		
Firm Contract	4.5	17		
Interruptible	4.1	19		
Total non-domestic	4.1	16	(0.7)	(2)
TOTAL REGIONAL SALES	4.1	14	(1.3)	(4)
[HQ Contracts	1.8	15	n/a	n/a
TOTAL SALES	3.8	13	n/a	n/a]

Notes:

(1) The gas levy is included as a cost and is fully allocated to Regional sales pro rata to therms sold.

(2) This column is computed from average revenue less marginal non-gas costs (excluding a return on capital) and less the cost of gas imported from the Norwegian Frigg Field at an 80% load factor of supply; [n/a denotes "not applicable"].

(3) This analysis includes Regional sales only. HQ contracts have been excluded on the grounds of commercial confidentiality. [This note applies only to the published version].

Source: Information provided by BGC

3.26 The marginal cost figures shown in Table 3.12 suggest that average revenue across all Regional sales has been insufficient to meet marginal cost in each of the last three years. In 1980/81 and 1981/82, however, the non-domestic market, taken as a whole, has been profitable. The marginal shortfall in the domestic sector has diminished over the period, while a marginal shortfall occurred in the non-domestic sector for the first time in 1982/83. This relative shift largely reflects the programme of 10% real domestic price increases and industrial price restraint adopted by BGC in line with Government policy.

3.27 The marginal figures in Table 3.12 do not contain any element to cover a return on capital. In our view it is appropriate that BGC should not only break even on marginal sales but should also generate a return on assets employed at the margin. Table 3.13 shows a detailed breakdown of marginal profitability for 1982/83 when a 5% rate of return on capital assets is included as a further element of costs.

Table 3.13
Marginal Profitability including a return on capital employed
(1982/83)

	Estimated Profit using Marginal Costs, p/therm	
	Excluding Return on Capital	Including Return on Capital
Domestic	(1.8)	(4.8)
Non-Domestic Market		
Tariff	(2.5)	(4.6)
Firm Contract	(0.5)	(1.7)
Interruptible	0.5	0.1
Total non-domestic	(0.7)	(1.9)
Total Regional Sales	(1.3)	(3.5)

3.28 The firm and interruptible contract sectors employ less capital per therm sold than the domestic and non-domestic tariff sectors. Table 3.13 shows that the profitability of the firm and interruptible contract sectors is thus relatively less affected by including a return on capital. The interruptible sector not only covers marginal expenditure but also generates the 5% required rate of return on capital.

3.29 Table 3.13 suggests that in 1982/83 sales of gas in all markets apart from the interruptible market were taking place at prices which were insufficient to meet marginal costs and thus the costs of maintaining supply. This is most marked in the tariff sectors. If gas were priced to cover these estimates of marginal costs including a 5% return on capital, it would still at present cost less than competing U.K. fuels. The amount of additional revenue generated would of course depend on the extent to which volume was retained. Our analysis suggests that if all gas had been priced to cover marginal costs including a 5% return on assets, and if 1982/83 volumes had been maintained, over £500m of additional revenue would have been generated in the year. Changes in cost-efficiency or gas costs would affect the estimate of marginal costs in future. These changes would have to be taken into account in future decisions on prices.

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9 September 1983
Policy Unit

PRIME MINISTER

ENERGY PRICES

Peter Walker is really attempting to undermine the whole idea of pricing energy at economic levels. We should oppose this because:

1. Uneconomic pricing ~~subsidises~~ encourages energy users to be wasteful.

2. The subsidy raises the PSBR and hence helps to push up interest rates and inflation.

3. In the end, energy prices do have to be painfully readjusted to cover future costs of supply.

4. Economic energy pricing would not worsen inflation because during this Parliament, electricity prices and - to a lesser extent - coal prices, are likely to fall, even if gas prices ought to rise.

5. This Government is committed to economic pricing throughout the public sector. To exclude energy would be to erode the logic of our policy.

6. Even if Government does wish to subsidise energy-intensive industries, the way to do it is through direct help from the Exchequer, not by sending the wrong signals to the whole of industry.

7. The real rates of return on investment in gas and electricity are only 1.6 per cent and 1 per cent respectively (1982/3: current cost basis, after interest, tax and extraordinary items).

Domestic Gas

Despite the three price increases of 10 per cent in real terms for domestic gas since 1979, on current forecasts domestic gas is still underpriced. Unless prices are progressively moved to economic levels, demand will increase. More imports of gas would then be needed. They would have to be sold at a loss.

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Domestic prices are only now at 1970 levels in real terms, and are significantly below European levels. The effect of the series of 10 per cent rises has been to transfer perhaps about a quarter of the available economic rent to the Exchequer since 1980.

The extent of current underpricing depends upon the definition of economic prices. Based on the Frigg field contract which is usually taken as a reasonable indicator of marginal cost, domestic gas was probably underpriced in 1982/83 by about 4½p per therm, or about 12 per cent. The extra revenue foregone which would otherwise have been available to the Exchequer on this basis, is about £500 million - on top of the combined actual total of gas levy and BGC's profits of about £1,200 million, of which only about £700 million passed to the Exchequer in the form of the levy and tax. As gas costs are increasing in real terms, the degree of underpricing is likely to increase in 1983/84 - and any freeze decision would make the "pricing gap" wider still.

Moreover, if the price at which the gas could be sold into Europe is used as a basis for economic prices, the degree of underpricing is probably much higher.

As there is no clear agreement about the correct basis for economic gas prices, the proposal for BGC to raise domestic prices in line with inflation in October is intended to maintain real prices until the most appropriate interpretation of economic prices is agreed.

Industrial Gas

As far as industrial gas prices are concerned, comparison with Frigg does not indicate any significant underpricing. There is therefore a similar need for industrial prices to rise at least in line with inflation, although higher increases would be indicated by the rise in real gas costs.

If BGC are selling gas at prices below the current marginal costs of supply, new entrants into the market under the Oil and Gas Enterprise Act are likely to be few and far between.

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Electricity

By contrast, electricity is at present overpriced.

Even with the 1983/84 price freeze, electricity prices are probably about 6 per cent, equivalent to about £500 million revenue, above economic levels. If the CEGB is required to break even before interest, prices are still probably about 3 per cent, or £300 million in revenue, above economic levels. The purpose of the current price freeze, and the proposed increase of 1½ per cent below the rate of inflation in 1984/85, is to give the Government an opportunity to agree the detailed basis for future prices.

We consider that electricity prices should move as quickly as possible towards economic levels, even if this implies going further towards a price freeze in 1984/85 than has already been agreed. This would involve some recognition that current prices are too high, but that embarrassment would be confined to political circles. It would be a pity to miss an opportunity to implement proposals which are both rational and likely to be widely welcomed by electricity consumers.

It is possible that economic prices could lead to accounting losses - which would be borne by the taxpayer rather than by the electricity consumer. This would be in conflict with the industry's statutory duty to break even and would also mean that the industry would not earn a positive return on investment.

But you can argue that if the industry is still able to repay debt despite accounting losses, the financial health of the industry is still being maintained.

Coal

Although coal prices have been raised above economic levels, with implications for electricity prices, the new NCB/CEGB pricing agreement will lead to a fall in real coal prices. Prices will be raised by only 2.5-2.9 per cent in November, in order to align NCB prices more closely with import prices, and thus begin to eliminate overcharging. Coal prices should not therefore be significantly out of line with economic price levels in the future, although further discussion on import price alignment may be needed.

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Large industrial users of electricity

Your meeting last December, which considered the CPRS Report on Electricity Prices for Industry, concluded that electricity prices should be properly based on economic prices, without any subsidy from the taxpayer or cross-subsidy from other consumers. This conclusion related primarily to the question of whether the tariff system should be tilted to favour large industrial users of electricity. Arising from this meeting, new proposals on direct contracts, sophisticated tariffs and load management schemes are being considered by DTI and Department of Energy. These proposals have yet to be agreed between the two Departments and brought back to E(NI).

Conclusions

We recommend that your meeting on Tuesday should agree:

1. That energy prices should be set by economic pricing principles and that the Department of Energy should produce proposals on the most appropriate interpretation of economic prices for gas, electricity and coal.

2. That domestic gas is underpriced and that prices should be raised in line with inflation from October. Thereafter, the Department of Energy should produce proposals for eliminating the underpricing of domestic gas within 5 years. Industrial gas prices should be raised in line with real gas costs after the expiry of the current industrial price freeze at the end of the year.

3. That electricity is overpriced and that consideration should be given to moving closer towards a price freeze in 1984/85.

FERDINAND MOUNT

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PRIME MINISTER

ENERGY PRICES

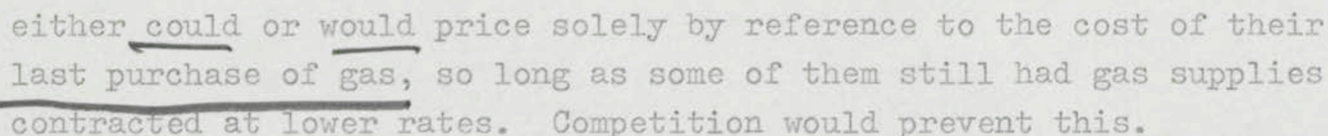
Nigel Lawson minuted you on 23 August, commenting on my minute of 15 August. You are arranging for us to discuss this, but it may simplify our discussion if I record some points on the more theoretical aspects of Nigel's minute.

I think his minute takes too simplistic a view of "economic levels" of energy pricing. As he well knows, there is enormous room for argument about what is an economic level of pricing for electricity or gas, and about how to give effect to it in commercial practice.

As an example, we found it possible last autumn to take a radically new view of what was an economic level of pricing for electricity and, as Nigel says, to go for a price freeze in 1983/4 on the basis of it. I think the new view was right, but the change illustrates that views on economic pricing can alter.

In the case of gas there simply is no agreement worldwide that long-run marginal costs are the sole basis for commercial pricing, in the sense that the consumer should immediately be charged the full price of the most recently purchased tranche of gas supplies. It is common experience with gas utilities in Europe and North America that they practice some form of averaging. Provided they remain profitable overall, such utilities may accept initially a small profit or even a loss on new high priced gas supplies, perhaps against an expectation of better returns on that tranche of supplies later.

Nigel says that no private sector business would do this. But the nature of the gas supply business means that gas utilities, whether public or private, need to recognise long term supply obligations to consumers, and very often also to buy new supplies in large tranches. That is the position of BGC. If it were possible to have competing gas utilities in the UK private sector now, I do not believe they

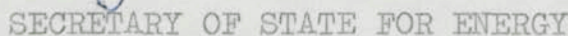


either could or would price solely by reference to the cost of their last purchase of gas, so long as some of them still had gas supplies contracted at lower rates. Competition would prevent this.

I do not think however that there need be all that much between the Chancellor and myself on the immediate course of action. On electricity prices for 1984/5 it now seems possible that an extension of the freeze to the whole of that year could be achieved within the present financial target, and with no worsening of the public expenditure position. Lower inflation is improving the prospect for electricity profits. Nigel will recall that at the time the present target was set he expressed some misgivings that electricity prices would be too high, given the present level of overcapacity in the system. But I expect that a satisfactory conclusion on electricity prices can emerge from the autumn review of nationalised industry finances.

We will however need to discuss gas prices at your meeting. BGC now tell me that profitability in the current financial year has been better than expected. They say they are content to defer any increase until 1 January 1984. It remains for us to decide the quantum of the increase from that date.

I am sending copies of this minute to Nigel Lawson, Cecil Parkinson and George Younger.



SECRETARY OF STATE FOR ENERGY

Sept '83

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Prime Minister (4)
MCS 22/9

ECNO

DEPARTMENT OF TRADE AND INDUSTRY
1-19 VICTORIA STREET
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JU555
Secretary of State for Trade and Industry

22 September 1983

CONFIDENTIAL

The Rt Hon Peter Walker MP
Secretary of State for Energy
The Department of Energy
Thames House South
Millbank SW1

Dear Peter,

ENERGY PRICES

I see from your more recent minute to the Prime Minister on this subject that it now seems possible that the electricity price 'freeze' could be extended to 1984/5 within the present financial target and with no worsening of the public expenditure position. If this is so I am sure it would be the right course to take. There can be little justification for extracting a higher rate of return than planned for by overcharging the customers of an industry which is suffering from over-capacity. While an overall price freeze would not solve the problems of the large industrial users which we are studying, the continued freeze would make some contribution to alleviating their competitive disadvantage and would of course be welcome to industry as a whole.

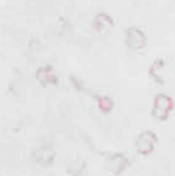
2 On gas prices, I hope that the figures which you have been asked to prepare comparing the position of domestic tariff customers and industrial contract customers will bring out the different rates of return which BGC is earning on these two businesses. In the past we have been concerned that industrial customers were subsidising domestic customers and I do not think an industrial price increase would be appropriate until the Corporation is earning a similar return on both sides.

3 I am copying this letter to the Prime Minister, Nigel Lawson, George Younger and Sir Robert Armstrong.

Yours ever,

Cecil

Nat Fuel: Gas + elec Pricing Pt 8



22 SEP 1988