

## The Calor Group Limited

6.1. The Calor organisation is, as has already been shown (see paragraphs 5.7 and 5.8), by far the largest supplier of reference LPG in the United Kingdom. It is on that account appropriate to ascertain how it has achieved that position and how it seeks to maintain and develop it. These are amongst the matters dealt with in this chapter.

### History and organisation

6.2. The Calor business had its origins in the Modern Gas and Equipment Company Limited which was formed in 1935 to sell butane in cylinders, and appliances for use with butane, in the United Kingdom. Later that year the business and the assets were transferred to Calor Gas (Distributing) Company Limited, an associated company incorporated in August 1935.

6.3. Although the company's growth was inhibited by the war its sales of 2,900 tons of butane in the financial year to 31 July 1940 had increased to 4,100 tons by 1946. In 1947 Research and Development Laboratories were opened at Addlestone, Surrey and in 1948 the company constructed its first cylinder filling plant.

6.4. In 1948 Calor went public when the whole of the issued share capital of Calor Gas (Distributing) Company Limited was acquired by the newly formed Calor Gas Holding Company Limited. In that year the company sold 11,900 tons of butane and had a network of more than 700 dealers throughout England and Wales as well as concessionaires in Scotland and Northern Ireland.

6.5. In 1954 the Irish concessionaire—McMullans Limited—terminated its agreement with Calor and subsequently merged with the Danish Kosan organisation in Ireland to form McMullans Kosangas which ultimately became LPG Limited. That company was acquired by Calor in 1971 to form 'Calor Kosangas' in both the Republic and Northern Ireland.

6.6. In 1955 the company began selling propane, both in cylinders and in bulk, and by a number of acquisitions in the years 1957-64 extended into the field of precision engineering. These acquisitions formed the basis of the Calor Engineering Division which now manufactures and assembles, *inter alia*, cylinder valves and certain LPG appliances which are supplied to the market by Calor Gas Limited in Great Britain and by Calor Kosangas Northern Ireland Limited in Northern Ireland. In 1957 Calor acquired two road transport companies which, as Calor Transport, provide services for Calor Gas Limited as well as being engaged in the distribution of bulk gases and liquids on behalf of third parties.

6.7. Significant subsequent developments include the building of a network of filling plants to support the company's national coverage and the acquisition (in 1963) of Scottish Rural Gas Limited and a small cylinder business called Dexagas as well as Calor's first retail outlet. Further retail outlets were subsequently established in areas of high population. These outlets became known as 'Calor Centres' (see also paragraph 6.21).

6.8. In February 1969 Imperial Continental Gas Association (IC Gas) acquired the remainder of the equity in Calor Gas Holding Company Limited which it did not already own. This development was followed by a number of accountancy and organisational changes including the setting up of a divisional structure and the creation of The Calor Group Limited as the company owning the several operating companies and as the provider of services (in administration, personnel, accounting and research) to those companies.

6.9. In October 1979 Calor acquired from the British Gas Corporation their reference LPG business in South West England which had been operated under the name 'Glogas'. (That business then accounted for about 1.4 per cent of the total United Kingdom market.)

6.10. In investigating the operations of the Calor organisation in the reference LPG field we have necessarily concerned ourselves principally with the activities of the operating companies, ie Calor Gas Limited in Great Britain and Calor Kosangas Northern Ireland Limited in Northern Ireland. However, as each of these companies is a wholly-owned subsidiary of the Calor Group Limited that Group may more conveniently be regarded, in the context of the United Kingdom as a whole, as the 'supplier' for the purposes of establishing the existence, or possible existence, of a monopoly situation. Henceforth we use the terms 'Calor' and 'the company' in this report to indicate either the Calor Group Limited or Calor Gas Limited as the context may require. Where specific reference to Calor Kosangas Northern Ireland Limited is necessary we use that designation or the abbreviation CKNI. The financial year for each of the companies ends on 31 March.

#### **Factors affecting the supply of, and demand for, Calor products**

6.11. Apart from the general availability of supplies, which is discussed in Chapter 3, one of the main problems for any supplier is the seasonality of demand—particularly for butane. We estimate that about 60 per cent of all reference LPG is now sold as butane in cylinders of the 13–15 kg size predominantly used in mobile cabinet heaters. These appliances are, of course, brought into service in cold weather conditions. The onset and duration of such conditions are, however, notoriously difficult to forecast. For example, Calor told us that the tonnage of reference butane supplied in Great Britain in the third week in February 1980 was only 43 per cent of that supplied in the third week in January of that year, during which period the mean average temperature rose by 7°C.

6.12. Any supplier of reference LPG, therefore, has to endeavour to relate supplies—which have hitherto been chiefly derived from oil refinery operations which are continuous—to a demand which is markedly and unpredictably seasonal. Being a nationwide supplier Calor (unlike the smaller local suppliers) must, in addition, endeavour to respond to the widely varying climatic conditions which may exist in the several regions of the United Kingdom at any given time.

6.13. Calor told us that it seeks guaranteed minimum quantities of LPG in contracts negotiated with the major oil companies but that those quantities may be inadequate if winter weather conditions should prove to be worse than average. Seeking most of its annual requirements during only a few months of the year, a customer like Calor may be expected to be less attractive to oil refiners than one whose requirements remain at constant level throughout the whole year. When reference LPG is urgently required on a scale above the contracted level of purchases, Calor must necessarily seek additional supplies where they can be found.

#### **Purchases**

6.14. Purchases of LPG by Calor in the financial years 1975 to 1979 inclusive increased by over 50 per cent to something over half a million tonnes in the last of those years. All purchases conformed to the quality specifications prescribed in BS 4250 : 1975. In each of these years the purchases of propane included a quantity acquired for delivery at cost plus agreed charges to BOC Limited (for re-supply by that company in cylinders) in accordance with an arrangement under which Calor Gas Limited acquired BOC's business in bulk propane.

#### **Sources of supply, filling plants and bulk storage facilities**

6.15. Purchases of LPG in bulk are made by Calor from all the major oil companies—Shell, BP, Esso, Gulf, Mobil, Total, Texaco, Fina, Conoco, Burmah and BNOC. In addition, ICI is a supplier whilst purchases of some 5,000 and 44,000 tonnes (predominantly propane) were made on the 'spot' market in 1978 and 1979 respectively. Calor has eight filling plants in Great Britain and two in Northern Ireland at which the product is packaged into containers of the capacities referred to in the reference (see paragraph 1.1). Whilst the company has bulk storage accommodation for propane it has not yet succeeded in acquiring such facility for butane though it is making efforts to do so.

#### **Sales of reference LPG**

6.16. Somewhat less than one-half of sales by Calor are of LPG in bulk and are therefore outside the scope of our investigation. The total of sales of reference LPG by the two Calor companies (Calor Gas Limited and Calor Kosangas Northern Ireland Limited) for the years 1977, 1978 and 1979 were 199,995, 238,119 and 277,757 tonnes respectively. Sales by Calor Kosangas Northern Ireland Limited amounted to 28,042 tonnes in 1979. Butane now accounts for approximately two-thirds of the companies' sales by volume of all reference LPG. They have risen to that level from something over one-half in 1975. Save for aerosol propellant, of which a limited amount is supplied in cylinders,

LPG is sold by the Calor companies without its having undergone any process of conversion or modification since purchase by them.

### **Distribution arrangements**

#### **(a) Contract sales**

6.17. Calor Gas Limited and Calor Kosangas Northern Ireland Limited supply a number of customers with their requirements of reference LPG on the basis of a contract (generally covering a three-year period). Such customers (termed 'contract' customers) undertake to purchase a minimum quantity annually (see also paragraph 5.18). Thirty customers accounted for some 47 per cent of all contract sales made by Calor Gas Limited in the calendar year 1979.

#### **(b) Other sales outlets**

6.18. Calor Gas Limited has appointed a number of main dealers each of whom is solely or jointly with another main dealer, dealer or Calor Centre responsible for the wholesale distribution of Calor products within a defined area. But their activities are not confined to wholesaling. They also supply reference LPG and appliances by retail from locations approved by Calor Gas Limited as being suitable for the storage and sale of those products. In addition, main dealers are responsible (subject to the approval of Calor) for the appointment of the appropriate number and type of retail stockists within their defined areas. In the year to March 1979, some 19 main dealers each bought over 1,000 tonnes of gas from Calor.

6.19. Dealers are selected by Calor from those retail outlets whose performance and potential as distributors of LPG and appliances are deemed by Calor to justify a status within their organisation higher than that of a stockist but below that of a main dealer. The dealer may, but is not required to, appoint stockists, subject to Calor's approval, and deliver products to them from locations approved by the company. New dealership appointments are now generally confined to distributors outside main dealer areas.

6.20. Approved stockists are appointed from retailers who can be expected *inter alia* to comply with prescribed standards of safety and to provide ready availability of Calor products to retail customers.

6.21. In addition to the foregoing, the company has established a number of Calor Centres with functions (including the appointment of stockists) similar to those of main dealers. Each Calor Centre has a showroom and sales staff and, although directly owned by the company, is required to operate, in effect, as if it were a main dealership—the internal transfer prices for gas and appliances being the same as those charged to main dealers.

6.22. In the year to March 1979 70.5 per cent of Calor's sales of reference LPG within Great Britain was made to dealers, 22.1 per cent was made to Calor Centres and 7.4 per cent was made direct to contract customers. (The

term dealers is here used to include dealers *per se*, main dealers and stockists.) At March 1980 the number of Calor's distribution outlets of various sorts was, in Great Britain, a little over 9,000 and in Northern Ireland about 530.

6.23. The distribution arrangements operated by CKNI are essentially similar to those operated by Calor in Great Britain except that there are no separate stockists. Dealers in Northern Ireland sign a 'Dealer Stockist Agreement'. In the year to 31 March 1979 they accounted for 89 per cent of all CKNI sales of reference LPG in that Province. Contract sales accounted for 4.3 per cent, the balance being supplied by Calor Kosangas Centres of which there are at present six.

(c) *Restrictions on Calor distributors' operations*

6.24. In paragraph 4.13 reference has been made to a restriction in distributorship agreements which precludes the supply of Calor's brand of LPG if intended for use in appliances which have not been approved as conforming to BSI or Calor's safety standards. In addition, there are restrictions which preclude Calor distributors (main dealers, dealers and stockists) from being concerned in the supply of LPG other than the brand marketed by Calor during the currency of those agreements. In Chapter 8 we deal with this exclusivity provision both as regards Calor and certain other suppliers of reference LPG.

6.25. Calor's agreements with its distributors have recently been modified in certain respects. The old agreements, *inter alia*, contained a binding out provision restricting distributors from supplying other brands of LPG for a prescribed period after termination of their agreements with Calor. We have been assured by Calor that it is not its policy to seek to enforce any of the old agreements in so far as they include terms more onerous than the terms of the new agreements and that distributors still operating under the old form of agreement in which the binding out condition appears, have been informed that it will not be enforced. A company representative told us that the arrangement has in practice been a dead letter for many years—to his knowledge certainly for at least ten years.

6.26. We reproduce at Appendix 4 the restrictive clauses of (i) the old and (ii) the new forms of agreements as operated by Calor in Great Britain and at Appendix 4(a) the restrictive clauses of the dealer/stockist agreement as operated by CKNI in Northern Ireland.

**Purchase of containers**

6.27. LPG refillable containers in sizes of between 4.5 kg and 47 kg were purchased by Calor Gas Limited from manufacturers in the United Kingdom, Italy, France, and Thailand in the year ended March 1979. Their total value was £7,860,000. In addition, the company acquired small quantities of refillable containers in sizes of between 340 grams and 2 kg from Primus Sievert AB of Sweden at a total cost of £32,000 and small quantities of disposable cartridges

from Boxal Nederland BV and The Crown Cork Company Limited at a total cost of £42,310. CKNI purchased containers of 11.34 kg (25 lb) capacity from Italian and Czechoslovakian suppliers at a cost in 1978-79 of £372,626.

6.28. Under an arrangement made with BP (International) Limited in 1975 Calor Gas Limited acquired a number of 7 kg aluminium containers for the marketing in the United Kingdom of 'Caravangas'. With this exception, all refillable containers used by Calor are made of steel and conform to the specification in BS 5045: Part 2: 1978 (see paragraph 4.8). (The 7 kg aluminium container was approved in 1976 by the Explosives Inspectorate of the Health and Safety Executive and complies with the specification in BS 5045: Part 5 which is in course of preparation.)

#### **Calor Laboratories appointed as Inspecting Authority for gas containers**

6.29. As indicated in paragraph 4.8 the Health and Safety Executive appoint Approved Inspecting Authorities for the purpose of supervising and inspecting the manufacture of transportable gas containers for use within the United Kingdom. Calor Gas Limited, Central Laboratories, Addlestone, Surrey have been so appointed.

#### **Calor Laboratories as a listed BSI Test House**

6.30. In addition Calor Laboratories have been listed by BSI as the only Test House of Assessed Capability for LPG burning appliances (see paragraph 4.11). In this connection BSI told us of the importance which they attach to ensuring, in so far as this is possible, that listed Test Houses shall operate totally independently of any commercial interests. They explained that, in the case of Calor Laboratories' application, BSI inspectors visited the premises to satisfy themselves that the Laboratories are physically separate from Calor's marketing/commercial divisions; that the arrangements for dealing with correspondence and record keeping are under the sole control of the Laboratories' staff and that, so far as they could establish it, the Laboratories are in a position to operate in a genuinely autonomous manner. After listing, BSI practice is to make four unannounced surveillance visits per annum to satisfy themselves that the position regarding autonomy and confidentiality of Test Houses remains satisfactory.

6.31. In dealing with complaints (see Chapter 9) made to us that Calor Laboratories do not invariably operate wholly independently of Calor's commercial interests, the company told us that between April 1977 and June 1980 priority had been given in 31 instances (out of a total during that period of 1,719 assignments) to the testing of particular appliances. Priority had in each case been given at the request of the Calor commercial/marketing department and on the authority of the managing director of Calor Gas Limited. We reproduce at Appendix 7 an extract from a letter from Calor listing the instances and indicating the reasons for according priority to them. The reasons given include such considerations as innovative design; that barbecues were required

for the summer season; that the appliances were required to fill gaps in the product ranges of appliance manufacturers or that the requests for priority had been made by BSI.

6.32. Among the provisions governing the listing of Test Houses by BSI is the following:

'15. No claim, direct or implied, shall be made by the Test House that registration relates to any services other than those set out in the Certificate of Registration and the Schedule. The Test House may use in documentation, brochures or advertising media, without variation, the phrase "Listed in the BSI Register of Test Houses of Assessed Capability".'

6.33. In advertising appliances, Calor often refers to appliances as having been tested and approved for safety and performance in its laboratories 'which are specially recognised by the British Standards Institution for testing such products'. We asked Calor whether this form of advertising had been agreed with BSI. We were assured that it had been so agreed but in subsequent correspondence with the company it emerged that BSI's agreement had been assumed because no objection had been raised by them to it. (This form of advertisement was used, for example, in marketing certain mobile heaters before BS 5258: Part 10, was published.) We have now been informed that in future publicity material issued by Calor Gas Limited only the phrase 'Listed in the BSI Register of Test Houses of Assessed Capability' will be used if reference is made therein to the Laboratories.

#### **Cylinder valves, regulators and adaptors and agreements concerning their supply**

6.34. LPG cylinders supplied by Calor are directly interchangeable with the LPG cylinders of other suppliers of reference LPG but in certain circumstances the user may require an adaptor or a different regulator from that used when an appliance is connected to a Calor cylinder (see also paragraph 5.22).

6.35. Calor's propane and butane cylinders, other than the butane 7 kg and 15 kg sizes, have standard side-entry valves and are thus directly interchangeable with cylinders of equivalent size and type of other suppliers of reference LPG. Calor's 7 kg and 15 kg cylinders are fitted with 21 mm top-entry valves with 'clip on' regulators. The 15 kg cylinder is that predominantly used by Calor in supplying reference butane in Great Britain. The interchangeability of these cylinders is dealt with below.

6.36. The cylinders acquired from BP International Limited were fitted with top-entry valves of 21 mm size which incorporated a pressure-relief device manufactured by Kosan A/S, Denmark. Hence, when the Home Office expressed concern that Calor's butane cylinders of the type used with cabinet heaters should incorporate a pressure-relief device, the company decided to fit all such cylinders used by it with that type of valve. The regulator used with such valves is of the clip-on type. The effect of so doing is that for new appliances to which a regulator of the kind required for 'clipping-on' to the 21 mm valve is attached,

the only cylinders directly interchangeable with the Calor 7 kg or 15 kg butane cylinders are those incorporating a 21 mm valve of the same type unless the user changes the regulator and fits one compatible with the valve used in the other cylinder. As regards old appliances, where the regulator is of the kind compatible with the former side-entry valve, the Calor 7 kg and 15 kg butane cylinders are not capable of being used unless the user acquires an adaptor which serves as an interface between the new cylinder and the old regulator.

6.37. Among suppliers who have adopted top-entry type valves on their butane cylinders we were unable (in early 1980) to identify any other than Calor who, in Great Britain, had adopted a 21 mm diameter Kosan valve. For the most part all other suppliers use a 20 mm valve though at least one supplier in Great Britain (Shell) is in the process of fitting its butane cylinders with a valve of 27 mm diameter with a snap-on regulator.

6.38. In February 1976, when the company was organising its cylinder conversion programme, Calor Gas Holding Company Limited entered into two agreements with Kosan A/S of Denmark under which Calor 'agreed to acquire very substantial quantities of 21 mm valves, regulators and adaptors'. In one of these agreements Kosan agreed 'to grant Calor a manufacturing right for the balance of valves required by Calor for their conversions (ie in addition to the 1.5 million valves ordered by Calor) as well as a right to continue producing these valves, including the exclusive right to sell these valves also to other parties for use exclusively in the United Kingdom and the Republic of Ireland for a period of 25 years from the date of this Agreement'.

6.39. The parties also agreed that Kosan would be entitled to supply certain 'established customers' in the United Kingdom with their own requirements. (The scale of these customers' requirements was small.)

6.40. In November 1977 Calor announced to other suppliers of LPG that it was waiving its rights to exclusivity, though no formal variation was made to the Kosan agreement. Notwithstanding such waiver by Calor, we have been informed by certain other suppliers of reference LPG that Kosan remained unable to supply them with 21 mm valves and associated regulators though we understand that Kosan began advertising the general availability of the regulators in about May 1980. In July 1980 Calor informed us, with reference to its right to manufacture Kosan 21 mm top-entry valves, that it was willing to sell these valves to other LPG suppliers but had, in fact, succeeded in selling only small quantities.

6.41. In Northern Ireland CKNI uses, for the most part, on its butane cylinders a 1 inch Kosan Jumbo valve with clip-on regulator. (Other suppliers in the Province use either a 20 mm or 27 mm valve system.) This valve was already in use when Calor acquired LPG Limited in 1971 (see paragraph 6.5).



6.42. Whatever effect Calor's exclusive arrangement with Kosan for the supply of 21 mm top-entry valves and regulators may have had, it is clear that whilst, before introduction of top-entry valves on butane cylinders, side-entry valves were of standard size (21.7 mm), there is now a diversity of sizes and types of butane valve systems in use in the United Kingdom.

#### **LPG burning appliances and matters concerning their supply**

6.43. Calor Gas Limited is a major supplier of LPG burning appliances in Great Britain. Its sales of such appliances in the year to March 1979 amounted to £22,148,000. (The company's sales of reference LPG in that year were £55,137,000.) These appliances included cookers, space heaters, water heaters, barbecues, camping and leisure appliances, torches and burners. Out of Calor's total space heater sales in Great Britain of 352,000 units, mobile cabinet heaters accounted for 303,000 units in the year to March 1979. The latter figure is thought to represent about 60 per cent of all cabinet heaters sold in Great Britain in that year. In the same year CKNI supplied about 22,700 cabinet heaters as well as other space heaters, cookers etc in Northern Ireland.

6.44. Calor Gas Limited purchases its requirements of appliances from a wide range of suppliers (including Calor Engineering Limited—see paragraph 6.6). In the year 1978–79 purchases of space heaters were made from 34 suppliers and of cookers from ten suppliers. Super Ser (UK) Limited is Calor's main supplier of cabinet heaters. CKNI also bought its requirements from some of those suppliers in 1978–79.

6.45. Calor has agreements with certain manufacturers/distributors which confer rights on the company to market certain LPG burning appliances (almost totally cabinet heaters) on an exclusive basis. The manufacturers/distributors concerned in these arrangements are, or were, Super Ser (UK) Limited, Valor Heating Limited and Domestic Industrial Pressings Limited.

6.46. The arrangement with Super Ser (UK) Limited involved total exclusivity of heater types and brand name and is said to have evolved with mutual agreement from 1970 when both companies pioneered the cabinet heater market. This arrangement is now at an end. (In the year 1970–71 Calor sold all the cabinet heaters—15,000—supplied in Great Britain.)

6.47. An exclusive arrangement was concluded subsequently between Valor Heating Limited and Calor in respect of one model of cabinet heater.

6.48. Domestic Industrial Pressings Limited (DIP) and Calor also have an agreement whereby exclusivity for DIP's range of heaters is held by Calor. This exclusivity relates only to the use of the name of the heater.

6.49. One model of cooker manufactured by the Glynwed Group is sold exclusively through Calor as an own brand cooker. (Advertising material for this cooker says that it is 'Suitable for Calor Gas only'.)

6.50. In addition, Calor enters into certain launching arrangements conferring short-term exclusivity on the company for the distribution of certain appliances. None of the arrangements concerning exclusivity of appliances is, we are informed, the subject of any written agreement.

6.51. Calor informed us, in connection with the marketing of LPG burning appliances through its distribution network, that 'if [an] appliance has not been approved by Calor under the standard test procedures adopted at Addlestone, Calor's dealers are expressly prohibited from stocking it and reselling it for use with Calor's reference LPG'.

6.52. The company has told us that it is now 'a matter for each manufacturer of an appliance that has received Calor approval at the Addlestone Testing Laboratories, to decide how to distribute that appliance, whether to entrust the bulk of the work of marketing, sales and distribution to Calor or market in competition with Calor or both . . . '.

6.53. The 'Calor Gas Approved Badge', to which reference has been made in paragraph 4.14, appears to be of the nature of an unregistered seal of approval. In the Final Report of the Committee on Consumer Protection (Cmnd 1781) published in 1962 it was recommended that, where an unregistered seal of approval is used for the purpose of seeking to advance sales, such use should be made an offence, save in certain exceptional circumstances. Although this recommendation has not been implemented the Trade Descriptions Act 1968 offers some protection against the use of false claims by users of unregistered seals of approval. We have no grounds for assuming that the Calor Badge is, in itself, misleading in any respect. Our concern is whether its use leads to any restriction or distortion of competition in the LPG appliances market bearing in mind that certain products which are, we believe, in every respect identical to 'Calor Approved' products in their manufacture (though they do not qualify for the dealer checking and service support referred to in the Badge definition) are not entitled to bear the 'Calor Gas Approved Badge'. There is also the wider question as to how far it is appropriate that an appliance manufacturer should find it necessary to seek from Calor Laboratories confirmation that his product conforms to British Standard(s) if he wishes to market it either partially, or wholly, through other than Calor outlets. It should be said that these considerations arise because of (a) Calor's predominant position in the LPG appliances market, and (b) the company's unique position in that its Central Laboratories enjoy the status of a BSI listed Test House, indeed the only one exercising a regulatory function in the LPG appliance field. One appliance manufacturer who complained about these matters to us remarked as follows:

' . . . the reason for us applying for Calor Gas approval of our appliances . . . is that their [Calor's] power of marketing and indoctrination of the LPG market would not make it viable for us to introduce the appliances because a mere statement that "it is not approved by Calor Gas Limited" will immediately put a retailer off from stocking such an item, because, . . . , Calor Gas Limited are the only company that have a test house capable of approving such appliances and their word has tended to become law . . . '

### **Appliances sold by discount and mail order suppliers**

6.54. A comparatively recent development in the LPG burning equipment market is the sale of mobile cabinet heaters through certain discount and mail order houses. In some instances the product so supplied is 'Calor Approved' and is accompanied by a voucher entitling the purchaser 'to a free full inspection for safety and performance by an Authorised Calor Gas Dealer who will also supply you with a cylinder and first fill of gas . . .'. (Such products are not entitled to bear the Calor Gas Approved Badge.) The text of related advertisements makes it clear that payment of the hire charge for the cylinder and the fill of gas must be made to the dealer. In other instances some products supplied by discount and mail order houses have not been 'Calor Approved'.

### **Product liability**

6.55. Calor holds a public/products liability policy which indemnifies the company and all its duly appointed dealers and stockists against all sums which it shall become legally liable to pay for compensation in respect of certain damages to life or property as a result of an occurrence happening in connection with its business and caused by, or as a consequence of, any Calor gas or Calor approved equipment or any work executed by or on behalf of a dealer or stockist in connection therewith. In agreements with its main dealers and dealers it is expressly stated that 'For the purpose of clarification the company will not accept liability . . . if the equipment is not Approved and/or supplied by the company or Approved equipment is being used with gas other than that supplied by the company'. (For definition of 'Approved' see paragraph 4.13.) CKNI requires its dealers to hold a policy of insurance against liability to third parties and public liability for loss or damage arising from accident or negligence arising from performance by the dealer of his agreement with the company and in connection with his business up to a liability of £100,000 for any one claim.

### **Pricing policy**

6.56. Calor describes its business (which includes the supply of both bulk and reference LPG) as that of 'a wholesaler, but a wholesaler of a quite exceptional type'. The distinctive feature of the business is said to be that whilst it has little control over the cost of the major product (ie LPG) it seeks to have, and does have, a considerable influence on total demand for it, the level of which has been directly affected by its capital investment and marketing policies. As regards reference LPG, the company's policy of marketing mobile cabinet heaters has, in recent years, been the major factor in influencing demand for that product (in the form of butane).

6.57. The company points to the cost to it of LPG at the refinery and says that this element in its cost structure has always dominated its prices. It has also pointed out that as regards butane, for example, there are alternative uses to which that product can be put (eg as a substitute for naphtha in the petrochemical industry) and for which the oil refiners can obtain attractive prices.

However, in order to maintain the momentum for growth which the company has achieved in recent years, it says that the full effect of increased ex-refinery prices has had to be moderated by accepting a reduction in the company's trading margins. The aim is, the company says, to provide a reasonable return on capital and to stimulate market growth without making the 'wholesale profit' so attractive as to invite new entry or expansion of existing competitors' operations. Additionally it does not seek, it is claimed, to exploit its strong position in sparsely populated areas as is evidenced by the adoption of national prices for its products except that in certain Scottish Islands and the Isles of Scilly a dock handling and sea freight charge is added to such prices.

6.58. The marketing of reference LPG necessarily involves costs *inter alia* in providing and maintaining cylinders, filling plants, distribution depots and transport. And, as regards cylinders, Calor emphasises the major capital investment which it has made in providing enhanced safety and other improvements in recent years.

6.59. In pricing its reference products, Calor told us that all the foregoing considerations have to be taken into account against the background of factors over which the company can have no control. These include the prices of alternative fuels and government policy in regard to them. In referring to the latter, the company remarked that its growth in 1976 and 1977 (when annual increases of 35 per cent in sales of cylinder butane were achieved) can be ascribed to the decision of government to withdraw the subsidy on domestic electricity charges and that, rather than follow the increase in electricity prices, it decided to maintain a differential in favour of reference LPG. As regards the increasing number of small suppliers whose main competitive weapon is price, Calor claims that it continually seeks to meet this circumstance by improving the quality of the service it provides.

6.60. Calor says that all these factors are relevant in relation in general to the comparative price/performance of LPG and that it has continually to recognise them. However, as regards the pricing of the smaller butane cylinders which are used traditionally in leisure pursuits, different considerations are said to apply. In this sector of the market it is said that 'the cost of an exchange cylinder of butane is one of the least important costs incurred by the holiday-maker, whose primary concern is the availability of exchange cylinders'. Accordingly, Calor prices such products so as to maintain a significant differential in its favour as against comparable products marketed by Camping Gaz (GB) Limited (see paragraphs 5.12 and 7.4 (iii)) and 'so as to achieve an appropriate contribution from these (leisure) users to the costs of establishing and running a system of distribution which, in effect, guarantees this availability of exchange cylinders throughout the country'.

6.61. Calor says that the reactions of consumers to the levels of price of 15 kg cylinders (of butane), and to changes in that price 'over the past five years have been the most positive and striking acknowledgement of the value for money

of "LPG in appliances" as compared with other forms of energy' and added that 'price increases on smaller cylinders . . . have not inhibited demand'.

#### Discounts, rebates and allowances

6.62. Calor's structure of price discounts reflects the structure of its distribution network, except that for discount purposes there are four categories of 'Dealer'. These are, in Great Britain, described as Full Dealer 1, 2, 3 and 4. Their respective functions and distinctive characteristics are as shown hereunder.

- (a) *Full Dealer 4* is required (i) to accept full loads, or slip trailers, of reference LPG from Calor during 24 hours per day including weekends and to maintain storage throughout the year at levels required at periods of peak demand; (ii) to supply reference LPG to stockists appointed by the dealer and (iii) to provide a full delivery service to customers.
- (b) *Full Dealer 3* is required to provide services listed at (a)(ii) and (iii) above. Deliveries to these dealers are made direct in part loads.
- (c) *Full Dealer 2* is required to provide the service at (a)(iii) above. Deliveries to these dealers are made by Calor in part loads.
- (d) *Full Dealer 1* (like all other dealers) is required to comply with the terms and conditions of his contract with Calor including stocking of a range of appliances and employing technical support staff approved by Calor.

6.63. A *Sub-Dealer* is in effect a stockist who, for reasons connected with his location, acquires reference LPG direct from Calor and accounts directly to Calor.

6.64. The discounts, expressed as percentages off recommended maximum retail prices, are as shown below for each class of dealer in respect of reference LPG supplied by him in cylinders of all sizes other than certain small cylinders (Calor Primus and Calor Dex which have capacities 0.34-1.95 kg and 0.45 kg respectively).

Main Dealer	33 per cent
Full Dealer 4	30 per cent
Full Dealer 3	29 per cent
Full Dealer 2	27½ per cent
Full Dealer 1	25 per cent
Sub-Dealer	17½ per cent

On small cylinders (see above) main dealers are given 50 per cent and all full dealers and sub-dealers 33 per cent discounts off recommended maximum retail prices for such products.

6.65. Discounts, expressed as percentages off recommended maximum retail prices and based on annual tonnages purchased, are for the year to 31 March 1981 allowed to stockists on the following scale.

<i>Annual purchases</i>	<i>Discount (per cent)</i>	
	<i>Winter purchases</i>	<i>Summer purchases</i>
Less than 15 tonnes	15	17½
15-60 tonnes	17½	20
Over 60 tonnes	20	22½

A stockist collecting his purchases from a Calor Centre obtains an additional 5 per cent discount and Calor has recommended to its dealers that they should give the same amount to stockists collecting supplies from them.

6.66. All Calor dealers in Great Britain who have been dealers for one full year prior to 1 April in each year are eligible to take part in a Dealer Incentive Rebate Scheme. The rebate for the year to March 1981 is 3 per cent (5 per cent between April and September) of total gas turnover and 1 per cent of appliance turnover. Qualifying conditions require dealers to have participated fully in national sales promotion campaigns including participation in 50/50 local advertising support, where appropriate; to have co-operated fully in maintaining appropriate stocks of full cylinders; to have achieved increases in total cylinder gas and appliance sales and to have complied satisfactorily with Calor's terms of trading.

6.67. In addition there are provisions for rewarding contract customers who achieve specified annual cylinder turnround rates and for granting an introductory commission to mechanical handling equipment manufacturers and distributors who supply new or replacement equipment, together with Calor cylinders, to an existing Calor contract customer or which results in a new Calor contract being signed. This arrangement applies in Great Britain only.

6.68. CKNI issues its own recommended retail price lists which are not subject to variation within the Province. Dealers in Northern Ireland are allowed a discount of about 18 per cent off those prices. Two of the six Calor Kosangas Centres in Northern Ireland operate on a franchise basis with the concessionaires being given a discount of some 11 per cent.

#### **Supply of LPG containers**

6.69. All refillable Calor cylinders remain the property of Calor at all times. The property in disposable containers ('cartridges') passes to the purchaser on sale.

6.70. No charge is made by Calor for its Calor propane, Calor butane or Calor Dex cylinders supplied to its distributors, provided that those distributors comply with the terms of their agreements governing the control of stocks of cylinders. If a deficiency or an excess is found in a distributor's stock of cylinders he is liable to pay compensation to Calor in respect of the former and to receive payment from Calor in respect of the latter. (The bases for such settlements are notified to its dealers by Calor.)

6.71. Calor Primus (refillable) cylinders are generally supplied to dealers on the basis of exchange of a full cylinder for an empty cylinder. But in cases where a distributor requires a supply of Primus cylinders he is invoiced the full charge for the cylinders (including its contents) less the appropriate discount, when he places the order.

6.72. The user, on first acquiring gas and the use of the cylinder containing it, is required to sign a Cylinder Refill Authority Agreement (Form 167)—see Appendix 3—and pays charges (in addition to the cost of the gas) which, excluding VAT, were in July 1980 as follows:

Calor propane/butane cylinders of all sizes from 3.9 kg and over	£16.00
Calor Primus (propane) Type 2000 (0.34 kg)	£9.00
Type 2012 (1.95 kg)	£12.22

Clause 7 of the Form 167 Agreement provides for refund to the customer of a percentage of the refill authority charge in certain circumstances. CKNI's arrangements are generally similar, the charge for a 25 lb butane cylinder being £10.87 (excluding VAT).

6.73. Contract users are allowed two months' free loan of all cylinders. Each cylinder held beyond that period is charged 10p per month, or part of a month, during the period April to September and £1.50 per month, or part of a month, during the period October to March. Any such charge is raised monthly but is credited back to the customer at the end of his contract year if he earns a rebate on total gas consumed on account of a high cylinder turnround rate as shown below. The gas rebate (in July 1980) was:

2.10p/kg for a winter period (ie, October to March) cylinder turnround rate of 6 and over;

1.40p/kg for a winter period cylinder turnround rate of 5—under 6; and

0.70p/kg for a winter period cylinder turnround rate of 4—under 5.

Cylinders not accounted for by the contract customer are charged for.

6.74. As regards LPG supplied by Calor for use in internal combustion engines where these engines are in vehicles for use on the public highway, such vehicles are fitted with refillable cylinders ('autotanks') and these cylinders are filled from bulk storage vessels supplied by Calor. (LPG supplied by Calor for this purpose has the trade name 'Autoblend'.) Where the internal combustion engine is in a vehicle, such as a fork lift truck, for use other than on the public highway, the user has a choice of three methods of supply. Under the first of them he can, provided he has suitable facilities for storage vessels, acquire bulk storage vessels and autotanks from the company and fill the autotanks with LPG supplied by Calor and held in the bulk storage vessels. Such autotanks are generally of 33 lb capacity. The user pays a quarterly rental charge for the autotank. Secondly, the user can opt for a contract for cylinders which includes the standard demurrage charge as outlined in paragraph 6.73. Thirdly, the user can obtain his exchange cylinders on a Form 167 Agreement through the Calor dealer network (see paragraph 6.72).

### Delivery charges

6.75. A cylinder domiciliary delivery charge is made (mid-1980) by Calor at the rate of 39p (excluding VAT). And, for contract customers, an annual charge of £40 (excluding VAT) payable quarterly is raised on every site to which reference LPG is delivered except where all gas consumed on that site is collected from a retail outlet.

### Prices and price movements

6.76. In the period from 1 April 1974 to 31 January 1980, the General Index of Retail Prices rose by about 139 per cent. In the same period the average cost of bulk butane purchased by Calor rose by 209 per cent (from £40.85 to £126.24 per tonne) and that of bulk propane by 184 per cent (from £41.45 to £117.89 per tonne). It was in about January 1980 that the price of bulk butane first exceeded that of bulk propane.

6.77. During the period 1 April 1974 to 31 January 1980 Calor increased the recommended retail sale prices of some or all of its reference LPG products, as supplied in Great Britain, on 13 occasions and, as supplied in Northern Ireland, on 11 occasions. The following examples (which relate to products when supplied in refillable containers of capacities in greatest demand) show the cumulative effect of these increases in both parts of the United Kingdom. (Where a particular capacity of container is not supplied in an area this is indicated in the subjoined table.)

TABLE 6.1 Price increases for Calor products from 1 April 1974 to 7 January 1980

Capacity of refillable container	Butane		Per cent
	Great Britain	N. Ireland	
4.5 kg (10 lb)/4.54 kg	132	112	
11.3 kg (25 lb)	N/A	157	
14.5/15 kg (32 lb)	164	N/A	
	Propane		
0.34 kg ( $\frac{3}{8}$ lb)	105	35	
0.82 kg (1 $\frac{5}{8}$ lb)	87	35	
1.92 kg (4 $\frac{1}{4}$ lb)	66	35	
3.9 kg (8 $\frac{1}{2}$ lb)/3.86 kg	121	99	
10.88 kg (24 lb)	N/A	148	
13 kg (29 lb)/13.15 kg	133	148	
19 kg (42 lb)	140	149	
47 kg (104 lb)	136	145	

6.78. The price of a 0.23 kg ( $\frac{1}{2}$  lb) disposable cartridge of butane as supplied by Calor increased, in Great Britain, by about 117 per cent between 1 April 1974 and 7 January 1980 whilst in Northern Ireland the increase was some 66 per cent. For the 0.45 kg (1 lb) cartridge the increase in Great Britain was 151 per cent and in Northern Ireland 77 per cent.



6.79. Taking Calor's recommended retail prices at 1 July 1980 as the basis, the following table shows the price in pence per lb of LPG when supplied to users in containers of different capacities.

TABLE 6.2 Calor's recommended retail prices for LPG when supplied in certain sizes of container as at 1 July 1980

Size of container	£ (to nearest $\frac{1}{2}$ p) per lb	
	Great Britain	N. Ireland
	<i>Butane</i>	
4.5 kg (10 lb)	0.33 $\frac{1}{2}$	0.27 $\frac{1}{2}$
11.3 kg (25 lb)	—	0.19 $\frac{1}{2}$
15 kg (32 lb)	0.20 $\frac{1}{2}$	—
	<i>Propane</i>	
3.9 kg (8 $\frac{1}{2}$ lb)	0.33	0.30
13 kg (29 lb)	0.19 $\frac{1}{2}$	0.19 $\frac{1}{2}$
47 kg (104 lb)	0.18	0.18

### Revenue, costs and returns in respect of reference LPG supplied in certain cylinders

6.80. Calor has provided the following information showing for the year ended 31 March 1979 the average revenue and costs directly associated with refilling reference LPG cylinders of the three sizes most widely used. The following table indicates that the respective average wholesale price charged in 1978-79 for each of these three cylinders provided a return on fixed assets which did not vary greatly from one cylinder size to another. The three cylinder sizes examined accounted for over 82 per cent of cylinder LPG sales by Calor.

TABLE 6.3 Calor Gas Limited. Revenue and direct costs per tonne of LPG when supplied in certain cylinders: averaged for the year 1978-79

Cylinder size	Butane		Propane
	4.5 kg	15 kg	47 kg
Wholesale price	£392.20	£201.95	£200.87
Cost of gas*	81.81	81.81	91.97
Production and distribution costs†	147.75	57.95	50.87
Cylinder depreciation‡	68.10	13.12	9.93
Total direct costs	297.66	152.88	152.77
Gross gas margin	94.54	49.07	48.10
Overheads net of cylinder hire revenue	28.64	28.64	28.64
Net margin	65.90	20.43	19.46
Fixed assets§	490.08	157.28	116.19
Return on fixed assets	13.4%	13.0%	16.7%

\* Average gas purchase price including delivery and storage costs.

† The majority of production costs have been allocated on work study standards set for the various operations necessary in connection with each cylinder size. Cylinder maintenance costs have been allocated by specific cylinder size, as has depreciation of certain specific plant used for only one cylinder size. Distribution costs have been allocated on a weight basis assuming a full outwards and return load for each journey.

‡ This item covers the allocation of the historic depreciation charge analysed by separate cylinder categories and includes all cylinders in the system whether held by a customer or forming part of the back-up requirement. The higher depreciation charge per tonne for smaller sized cylinders is a consequence of two factors, the first being the greater capital cost of smaller cylinders relative to the gas contained therein; and the second being the lower number of refills per annum requested by holders of smaller cylinders. The overall result is that the depreciation charge per tonne for 4.5 kg cylinders is five times greater than that for 15 kg cylinders.

§ Fixed assets comprise the historic written down value of all cylinders within the system together with a proportion of the production plant.

## Trading performance

6.81. Details of Calor's trading results for each of the years 1975-79 are shown in Appendix 5. They are summarised in the following tables:

TABLE 6.4 The Calor Group Limited: trading results relating to the supply of reference LPG

	1975	1976	£m 1977	1978	1979
Sales of gas and other revenue	20.9	29.5	41.0	53.8	64.6
Net profit before interest (historic cost basis)	3.7	6.4	7.0	6.8	9.3
Net profit before interest (CCA basis)	N/A	N/A	4.5	3.9	6.6
Net profit return on sales			<i>per cent</i>		
(a) Historic cost basis	12	16	12	9	11
(b) CCA basis	—	—	8	5	8
Net profit per tonne of gas	£25.49	£38.79	£34.80	£28.46	£33.62

Returns on capital employed for the same period are shown in Appendix 6 and are summarised below in respect of the supply of reference products including directly related activities (eg the supply of LPG burning appliances).

TABLE 6.5 The Calor Group Limited: return on capital employed in supplying reference LPG

	1975	1976	1977	1978	1979
(1) Capital employed on book value basis (£m)	24.3	25.3	31.2	44.7	58.1
Return on above (%)	15	25	22	15	16
Average over five years	19				
(2) Capital employed on CCA basis (£m)	—	—	51.7	61.0	75.3
Return on above (%)	—	—	9	6	9
Average over three years (%)	8				

There were no significant transfers of products or services between The Calor Group Limited and its parent IC Gas and we are satisfied that no payments were made between them such as would materially distort the profit rates shown above.

6.82. Examination of the results for the financial year to March 1980 indicated that for the Group as a whole and for its Gas Division there was no material change from the results for the previous year. There are no grounds for assuming that the profit rate on capital employed in supplying reference LPG varied significantly during those years.

## Source and application of funds

6.83. Details of the source and application of funds employed by The Calor Group Limited in the years 1976-79 are set out below. Although the details suggest that no additional finance was required to cover commitments during the period additional financing of between £7 million and £12 million would have been required to cover a contribution of £10-15 million in respect of interest, taxation and dividends.

TABLE 6.6 The Calor Group Limited. Source and application of funds for reference products

Year ended 31 March	£m					Total	as a percentage
	1976	1977	1978	1979			
<i>Source of Funds</i>							
Funds available from profit before interest	6.6	7.2	7.0	9.5	30.3	49	
Add back depreciation	3.4	4.5	4.8	6.8	19.5	31	
Net funds generated internally	10.0	11.7	11.8	16.3	49.8	80	
Increase in deferred cylinder revenue	2.2	2.2	3.7	4.6	12.7	20	
<b>Total funds provided</b>	<b>12.2</b>	<b>13.9</b>	<b>15.5</b>	<b>20.9</b>	<b>62.5</b>	<b>100</b>	
<i>Application of funds</i>							
Increase (decrease) in working capital	(1.0)	3.5	2.4	3.6	8.5	13	
Net additions to fixed assets (see paragraph 6.84)	6.6	10.4	17.6	14.5	49.1	79	
Increase in deferred assets	—	—	1.9	—	1.9	3	
<b>Total funds applied</b>	<b>5.6</b>	<b>13.9</b>	<b>21.9</b>	<b>18.1</b>	<b>59.5</b>	<b>95</b>	
Increase (decrease) in net liquid funds	6.6	—	(6.4)	2.8	3.0	5	

### Major items of capital

6.84. Capital expenditure incurred by The Calor Group Limited in supplying reference LPG in the financial years 1975-79 is analysed below. (Items relating to distribution are excluded.)

TABLE 6.7 Capital expenditure incurred by The Calor Group Limited in relation to the supply of reference LPG

Year ended 31 March	£m					Total
	1975	1976	1977	1978	1979	
Production plants	0.2	0.2	2.3	2.9	3.4	9.0
Calor centres	0.5	0.1	0.4	0.5	0.8	2.3
Cylinders	4.1	4.8	6.5	12.7	8.2	36.3
Other	—	1.5	1.2	1.5	2.1	6.3
<b>Totals</b>	<b>4.8</b>	<b>6.6</b>	<b>10.4</b>	<b>17.6</b>	<b>14.5</b>	<b>53.9</b>

### Statement of value added

6.85. The following statement of value added is given in respect of Calor Gas Holding Company Limited and its subsidiaries (which in addition to Calor Gas Limited and Calor Kosangas Northern Ireland Limited includes Calor Engineering Limited) for each of the five financial years 1975-79.

TABLE 6.8 Calor Gas Holding Company Limited. Value added calculation

	£m				
	1975	1976	1977	1978	1979
Employees remuneration*	16.3	19.7	21.5	26.8	31.4
Operating profit†	11.6	14.4	17.6	21.3	26.1
<b>Value added</b>	<b>27.9</b>	<b>34.1</b>	<b>39.1</b>	<b>48.1</b>	<b>57.5</b>
Average number of employees	4,814	4,620	4,450	4,820	4,736
Value added per employee	£5,796	£7,381	£8,787	£9,980	£12,141

\*Wages, salaries, NI and similar contributions, pensions etc.

†Before interest paid and depreciation, but net of interest received and sundry other net profits/gains.

### **Future pricing and profitability**

6.86. Noting Calor's policy of pricing its reference products below those of electricity (see paragraph 6.59), we asked the company whether, if the price of electricity increased by, say, the rate of inflation plus 10 per cent (this being the increase said to represent government policy in this connection), it would follow a similar pricing pattern. The reply was that such circumstances would give Calor more flexibility to increase profitability or to achieve a wider margin of advantage over electricity. And, as regards competition with mains gas, the company could not envisage circumstances in the next 10-15 years where (particularly given the convenience advantages of mains gas) there would be any significant changeover to LPG. However, there would probably be some movement in that direction in so far as more people, whose homes are equipped with mains gas central heating, would be likely regularly to use LPG as a means of heating, say, a single room for a short period daily rather than by using the central heating system for that purpose.

6.87. Having regard to the levels of profit which the company has made in recent years and bearing in mind that (a) substantial capital outlays had been made in those years (£6 million for its new butane cylinder valve system and £36 million for increased stocks for cylinders in the years 1975-79) and (b) the winters during the period had, for the most part, been unusually mild, we asked whether profit levels were not likely to increase substantially in future years when more normal circumstances might be expected to obtain. In reply the company pointed (in July 1980) to the mild weather of April 1980 which had already adversely affected the present year's operations and remarked that, since the company was acquired by IC Gas about 11 years ago, the sum of £140 million had been spent on investment and it was intended to spend a further £35 million in the current year. In the years ahead substantial sums would be invested in providing butane storage facilities to help in maintaining supplies to users whatever the weather conditions might be. Such circumstances, it was suggested, would tend to keep profitability at modest levels in future years.