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GAS PRICES

1980 - 1985

DE EUROPÆISKE FÆLLESSKABERS STATISTISKE KONTOR

STATISTISCHES AMT DER EUROPÄISCHEN GEMEINSCHAFTEN

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CONTENTS

SYMBOLS AND ABBREVIATIONS

-/	Nil
0	Data less than half the unit used
.	No data available
1980 = 100	reference year
*	natural gas
+	gasworks gas
m^3	cubic metre
kWh	kilowatthour
Gwh	gigawatthour (10^6 kWh)
h	hour
MJ	megajoule
GJ	gigajoule (10^3 MJ)
n	number
GCV	gross calorific value
NCV	net calorific value
BFR	Belgian franc
DKR	Danish crown
DM	German mark
FF	French franc
HFL	Dutch guilder
IRL	Irish pound
LFR	Luxembourg franc
LIT	Italian lira
UKL	Pound sterling
PPS	Purchasing power standard
ECU	European currency unit
EUR 9	Total of the member countries of the European Communities excluding Greece
Eurostat	Statistical Office of the European Communities

I. INTRODUCTION

This publication is a comprehensive update of the study Gas prices 1978-1984, published by Eurostat in 1984.

In contains the prices applying in 1985, together with data going back as far as 1980.

The text describes all recent changes in tariffs, taxation, supply and conditions of sale liable to affect price levels.

The study has been widened to include another two suppliers in the Federal Republic of Germany in order to ensure better coverage of regional variations in this country.

The trend analyses and indices have been re-based to 1980.

In all other respects, the definitions and methods remain the same as those used in previous studies, so that the formation and development of gas prices can be observed over a very long time series.

This publication is available in four languages: English, French, German and Italian.

The survey on which the study is based was conducted by the Statistical Office of the European Communities and would not have been possible without the cooperation of the gas companies and the Energy Institute of Cologne University, to whom we express our sincere thanks.

II. CONDITIONS AND METHODS

1. SCOPE AND LOCATIONS

The present study aims to show the actual price of gas paid by the consumer in the member countries of the European Economic Community.

Two types of gas are concerned:

(i) Natural gas (methane);

(ii) Gasworks gas.

Contrary to natural gas, which is a primary energy source extracted from naturally occurring gasfields, gasworks gas is a derived energy source manufactured from coal, petroleum products or from cracked, reformed or mixed natural gas.
The present study is not concerned with liquified petroleum gas (butane, propane), coke-oven gas, or blast-furnace gas.

Only piped distribution is considered.

The prices were recorded in 29 towns within the Community:

FR of Germany:	Hamburg, Hannover, Weser-Ems, Dortmund, Düsseldorf, Frankfurt/Main, Stuttgart, Munich;
France:	Lille, Paris, Strasbourg, Marseille, Lyon, Toulouse;
Italy:	Milan, Turin, Genoa, Rome, Naples;
Netherlands:	Rotterdam;
Belgium:	Antwertp, Brussels, Liège;
Luxembourg:	Luxembourg city;
United Kingdom:	London, Leeds, Birmingham;
Ireland:	Dublin;
Denmark:	Copenhagen.

In Greece there is no piped gas network.

Certain towns selected are representative of larger regions. This is indicated in the chapter concerning each country.

Six years are covered by this study: 1980 to 1985.

The prices are recorded at the beginning of each year based on the tariffs, contracts, conditions and rules in force at that time.

It is concerned with the actual price paid by the gas consumer, corresponding to the invoiced delivery price to the consumer at the beginning of each year including any eventual rebates and subsidies. Our consumers are defined as those who purchase gas for their own use and exclude those who offer it for re-sale. We have not considered the bulk price paid by the gas distributors.

2. UNITS OF MEASUREMENT OF ENERGY

Following international resolutions adopted by the General Conference on Weights and Measures, which resulted in the 'International System of Units of Measurement' (SI), a number of Council of Ministers' Directives (71/354, 76/770 and 80/181) laid down the rules to be followed with regard specifically to units of measurement of energy.

The use of the calorie and its derivates is now prohibited. Only two units of energy may be used, namely the joule and the kilowatthour. These two units are derived from the same basic definition, since 1 joule equals 1 watt/second. However, a concession was granted to the United Kingdom and Ireland, which may continue to use the therm for a transitional period.

For units of measurement are therefore still found in the current gas tariffs, i.e.:

the joule (Belgium);

the kilowatthour (FR of Germany, France);

the m^3 (Italy, Netherlands, Luxembourg, Denmark);

the therm (United Kingdom, Ireland);

(the m^3 is in turn defined by an energy content expressed in joules or in kWh).

With a view to a standardization and simplification, the joule (or its decimal multiples) was chosen by Eurostat as the common unit of measurement.

The decimal multiples of the joule are as follows:

kilojoule (kJ) = 1 000 joules;

megajoule (MJ) = 1 000 000 joules;

gigajoule (GJ) = 1 000 000 000 joules;

terajoule (TJ) = 1 000 000 000 000 joules.

In the present study, gas prices are expressed in therms of monetary units per gigajoule.

The table below can be used for conversion from one unit of measurement to another:

	GJ	GWh	Therm
1 gigajoule	1	0.0002777	9.4781
1 gigawatt/hour	3 600	1	34 120
1 therm	0.1055	0.0000293	1

In addition, as a guide, one gigajoule of gas may be said to be approximately equivalent to 35 kg of saleable coal and 25 kg of light fuel oil or heating oil.

Finally, the unit of energy used in this study is measured on the basis of the gross calorific value (GCV), as is the practice in the gas industry and gas tariffs, i.e. the latent energy necessary for the evaporation of the water produced during the combustion of the gas, is taken into account. This method of measurement departs from that used in energy statistics and for other sources of energy, where the net calorific value (NCV), which is closer to the energy that can actually be used by the consumer, is always used.

For gas, the difference between gross and net calorific value is around 10%. The gas price shown in this study in GJ (GCV) can thus be converted into GJ (NCV) by applying a factor of 1.1.

However certain recent condensation gas heaters permit a better use of the gross calorific value by re-using some of the latent energy of evaporation.

3. STANDARD CONSUMERS

The survey is based on the system of standard consumers, i.e. the prices are recorded for certain levels of gas consumption and under certain conditions of supplu, chosen as being representative of the population of gas consumers. These standard levels of consumption remain fixed from one year to the next and for all the countries, this being one of the primary conditions for spatial and temporal comparability of prices.

A standard consumer corresponds in fact to a meter to which a tariff or contract is applied. Where a consumer has two separate meters corresponding to two different tariffs, for example one for space heating, the other for professional use one does not calculate an average but considers that there are two separate standard consumers.

Two families of standard consumers are taken: domestic uses and industrial uses. The domestic consumers cover small users (households, commercial, crafts, offices, etc.). The standard consumers are characterized principally by the annual volume of consumption.

Five domestic standard consumers coded D_1 to D_4 have been taken:

	Annual consumption	Equipment
D_1	8.37 GJ (i.e. 2 326 kWh)	cooking and water heating
D_2[a]	16.74 GJ (i.e. 4 652 kWh)	
D_3	83.7 GJ (i.e. 23 260 kWh)	cooking, water heating and central heating
D_{3b}	125.6 GJ (i.e. 34 890 kWh)	
D_4	1 047 GJ (i.e. 290 750 kWh)	block central heating for at least 10 dwellings

[a] For the United Kingdom there is an additional standard consumer, i.e. 33.49 GJ (9 300 kWh or 8 Gcal).

Industrial uses cover medium and large users (industries, large commercial or administrative buildings, etc.).

For industrial uses, apart from the annual quantity consumed, the regularity with which the user takes gas from the network is also considered. This involves the concept of modulation (or load factor).

The daily load factor is the number of days which would be required to take the entire annual consumption at the maximum daily offtake rate.

The hourly load factor is the number of hours which would be required to take the entire annual consumption at the maximum hourly offtake rate.

These terms therefore determine the peaks or offtake ceilings reached by the consumer in the course of one day or one hour over the year.

The general formula is:

daily load factor $\quad nj = \frac{Qa}{Qj\ max}$

hourly load factor $\quad nh = \frac{Qa}{Qh\ max}$

where Qa = annual volume consumed,

Qj max = maximum daily offtake,

Qh max = maximum hourly offtake.

For example, in the case of a user who consumes 41 860 GJ a year, a load factor of 200 days means that the maximum daily offtake is 209 GJ (41 860 divided by 200), and a load

factor of 1 600 hours means that the maximum hourly offtake is 26 GJ (41 860 divided by 1 600).

Taking account of these characteristics, seven standard industrial consumers, coded I_1 to I_5, have been chosen:

	Annual consumption	Equipment
I_1	418.60 GJ or 116 300 kWh	no load factor laid down[1]
I_2	4 186 GJ or 1 163 000 kWh	200 days
I_{3-1}	41 860 GJ or 11.63 GWh	200 days 1 600 h
I_{3-2}	41 860 GJ or 11.63 GWh	250 days 4 000 h
I_{4-1}	418 600 GJ or 116.3 GWh	250 days 4 000 h
I_{4-2}	418 600 GJ or 116.3 GWh	330 days 8 000 h
I_5	4 186 000 GJ or 1 163 GWh	330 days 8 000 h

[1] If necessary $\leq$ 200 days $\geq$ 115 days.

The other characteristics which could play a part in establishing the price will be determined on a case-by-case basis, always adopting the solution which is most frequent in practice, these characteristics are mentioned where applicable.

It can be seen that certain standard consumers have the same load factor for different volumes of consumption or, conversely, different load factors for the same volume of consumption; the reason for this is to enable the effect of these conditions of supply on the level of prices to be observed. The higher the load factor (in days or hours) the more regular the offtake of gas, thus in some cases, enabling the consumer to obtain favourable prices.

Moreover, the load factor gives some idea of the use made by installations consuming gas. Thus, a very high load factor, e.g. of 8 000 hours, is obviously equivalent to an installation functioning practically non-stop, day and night, throughout the 8 760 hours in the year.

All the prices recorded in this study for standard industrial consumers normally relate to non-interruptible supplies, i.e. the seller of gas must supply the quantities demanded by the consumer (whose peaks are determined by the modulation laid down for standard consumers). In some cases there are interruptible contracts, under which the seller of gas can reduce the quantities supplied to the consumer at certain peak times when the network is overloaded. In return for this reduction of supply, the consumer pays a reduced price. Such cases are mentioned where they represent a sizeable part of deliveries.

It should be noted finally that the standard industrial consumers referred to in this study include neither power stations nor industries using gas for non-energy purposes, e.g. the chemical industry.

4. DEFINITION OF THE PRICE LEVELS RECORDED

All prices are shown per unit of gas sold, that is per gigajoule (GCV). The results represent the unit price at the beginning of each year and take account of the relevant tariff, parameter, index, etc. applicable as from the 1 January. In the case of tariffs or contracts with short therm indices (month, quarter) it is the index which is in force during January which is applied. The prices include meter rental, the standing charge and the commodity rate. They do not include the initial installation charge to the consumer.

If there are several possible tariffs, it is the tariff which is most advantageous to the consumer that is taken into account, after the elimination of the tariffs which are not used in practice or which apply only to a marginal or negligible number of users.

When there are only quasi-tariffs, special contracts, or freely negotiated prices, the most commonly found price (most representative) for the given supply conditions has been recorded.

In the case of freely negotiated prices or contracts, the returns relate respectively to the bills paid during the month of January or to the prices resulting from the contracts in force during that month. Such cases are mentioned and explained in the body of our study.

There price levels are shown:

(i) the price net of tax;

(ii) the price excluding VAT but including all other taxes;

(iii) the selling price (inclusive of all taxes).

The price excluding tax is obtained directly from the tariffs or contracts.
The price excluding VAT includes, where payable, other specific taxes which is interesting in cases where VAT is deductible.

The price inclusive of all taxes corresponds to the sum paid by the consumer.

' Taxes' is used here to mean fiscal and parafiscal levies applying directly to gas at the stage of sale to the consumer. These taxes may be levied at the national, regional, local or municipal level, etc. by the State, regional or local administrations, professional associations, etc. Anti-pollution charges levied on gas sales are therefore included.

On the other hand, the taxes levied before the sale of the gas, such as taxes on companies, profits, wages etc., which are obviously part of the production or distribution costs, are not calculated separately. They remain an integral part of the price excluding tax.

The results for each country are shown in national currencies at current prices, i.e. at face value.

For the purposes of international comparison, it was necessary to use a representative common monetary unit which would create a minimum of distortion in both space and time. Accordingly, the present study uses the purchasing power standard (PPS). The comparative tables are also shown in European currency units (ECU).

These unit of value are explained in the following chapter.

III. UNITS OF VALUE

To permit comparisons between countries, prices expressed in national currencies need to be converted to a common unit. In this study two common units are used:

(i) the European currency unit (ECU);

(ii) the purchasing power standard (PPS).

1. THE EUROPEAN CURRENCY UNIT (ECU)

The ECU is a basket-type currency unit based on the market exchange rates of a certain amount of each of the Community currencies, weighted according to the gross national product and intra-Community trade of each Member State.

In 1984, this weighting was revised on the accession of Greece.

The new composition of the ECU basket is as follows:

DM 0.719	LIT 140	FF 1.31	DKR 0.219	HFL 0.256
IRL 0.00871	BFR 3.71	UKL 0.0878	LFR 0.14	DR 1.15.

The conversion rates for the ECU against the national currencies in January of each year are given in a table in the Statistical Annex.

The definition of the ECU is such that it reflects fluctuations in exchange rates and is suitable for measuring the prices and values of international flows of goods and services. Data expressed in ECU therefore permit the comparison of prices in terms of money as changed at a bank. Such currency conversion at the market exchange rates, however, has the disadvantage that it fluctuates in time under the influence of many factors which are independent of internal price movements:

(i) capital transfers;

(ii) political decisions;

(iii) regulations;

(iv) speculation;

(v) psychological factors;

(vi) interest rates.

2. THE PURCHASING POWER STANDARD (PPS)

The PPS is a reference unit so calculated that its value in relation to the various national currencies is proportional to the purchasing power parities (PPP) between these currencies.

The purchasing power parities reflect the ratios between price levels in the different countries. The ratios between the prices expressed in national currencies are calculated for each of the products included in the uses of the GDP. If these ratios are suitably weighted, one obtains mean price ratios, the most general of which is the mean calculated for the GDP and known as the PPP at GDP level.

Such parities would be adequate to express all the data in real terms in the currency of any one of the countries considered. The method ensures that they are transitive and unaffected by the country chosen as a basis of reference. For Community calculations another reference unit known as the PPS is used. It is defined by applying the price ratios to the GDPs of the various countries expressed in national currency and adjusting the parities so that the value of the GDP of the Community as a whole in 1975 is identical whether expressed in ECU or PPS. Only the proportion accounted for by each country will be different.

When prices are converted to PPS using the GDP parity, the result may be interpreted as follows:

If one gigajoule of energy costs 10 PPS in country A and 5 PPS in country B, this means that after allowance has been made for the differences between the general level of prices in the two countries, this gigajoule of energy is twice as expensive in country A as in country B.

This conclusion is independent of market exchange rates, which are influenced by factors other than the level of prices (movements of capital, speculation, interest rates, political decisions, etc.).

The conversion rates for the years covered by the study are given in a table in the annex. They were revised when the base year was changed.

3. PRICES IN CURRENT PPS AND CONSTANT PPS

The price surveys required to calculate purchasing power parities are not carried out every year. The most recent available is that for 1980 an another is planned for 1985. Since the parities are price ratios, however, their value for the other years may be estimated by extrapolation using the movement of the GDP price indices for the various countries, referred to the Community average. These are known as 'current parities'.

The data can also be converted into base year PPS. If price series deflated by th GDP price index for each country are expressed in base year PPS, one obtains an indication of the change in prices for the product in question in relation to the general level of prices in the country. The data so calculated can also be compared between countries, giving the same results in relative terms as will be obtained using current prices and current PPP, since the latter are extrapolated using the same indices, namely, the GDP price indices for each country and the average Community index.

Calculation using deflated PPS is thus carried out as follows:

1. the prices of the time series in current national currency are divided by one hundredth of the GDP price index of each of the years concerned;
2. this deflated series is converted to PPS using the conversion factor of the base year 1980.

4. PRICE SERIES

In the light of the foregoing, the results of this survey of Community prices are given in three forms:

1. a series of current prices in the national currency for each country;
2. a series in current ECU using the conversion rates for January of the year concerned;
3. a series in 'deflated' PPS (base year 1980), which allows prices to the compared for different times and places.

IV. TAXATION

In the nine countries covered by this study the sales of gas are subject to a general indirect tax i.e. value-added tax. Furthermore, in three countries specific taxes are levied on sales. The tax-inclusive prices shown in this study include all these taxes. In the tables in the annex the absolute amount for the specific taxes can be calculated from the difference between the tax-exclusive and VAT-exclusive prices, while the difference between the total tax-inclusive price and VAT-exclusive price gives the amount of value-added tax in national currencies per gigajoule.

1. VALUE-ADDED TAX

During the period studied VAT was levied in each of the countries on the price net of VAT but including any specific tax in the basis of assessment. VAT is always a proportional tax, unlike the specific taxes.

The following table summarizes VAT rates in force during the period studied.

Value-added tax (VAT) rates on gas sales

(% of price before VAT)

January	1980	1981	1982	1983	1984	1985
FR of Germany	13	13	13	13	14	14
France	17.6	17.6	17.6	18.6	18.6	18.6
Italy (domestic)	6	8	8	8	8	9
Italy (non-domestic)	14	15	15	18	18	9-18[a]
Netherlands	18	18	18	18	19	19
Belgium	6	16	17	17	17	17
Luxembourg	5	5	5	5	6	6
United Kingdom	0	0	0	0	0	0
Ireland	0	0	0	0	5	10[b]
Denmark	20,25	22	22	22	22	22

[a] See chapter 'Italy'.

[b] As from 1 March 1985.

VAT is deductible for industrial and commercial consumers registered for general tax purposes.

2. SPECIFIC TAXES

(a) Italy

Since February 1977 sales of natural gas for household uses have been subject to a consumption tax (imposta di consumo), the rates of which were as follows:

until August 1979: LIT 30.00 per m^3;

September 1979-February 1980: LIT 36.50 per m^3;

from March 1980: LIT 30.00 per m^3.

For natural gas sold as such, LIT 30 per m^3 or approximately LIT 788 per GJ (GCV).

This tax is also applied to town gas in proportion to the percentage of natural gas used in its manufacture. Therefore the rate may vary depending on the consumption of the gas. For more details see the chapter 'Italy', paragraph b.

Since November 1980 (Law No 784) domestic consumers in the south of Italy (Cassa per il Mezzogiorno zone) are exempt from this tax, which is included in the basis of VAT assessment.

(b) Netherlands

A special pollution levy is applied to gas sales up to 170 000 m^3/year. The rates have been as follows:

	cents/m^3	cents/GJ
1978-81	0.03	0.85
1982	0.05	1.42
1983-85	0.054	1.53

This levy is included in the basis of VAT assessment. The basis for this levy is dealt with in greater detail in the chapter on the Netherlands.

(c) Denmark

Between 1 August 1979 and 31 December 1983 a special consumption tax was levied on piped gas with a calorific value (GCV) of less than 23 MJ per m^3, as is generally the case with gasworks gas.

Two rates were applied:

	Øre/m^3	DKR/GJ
1.8.1979-29.6.1980	20	11.94
30.6.1980-31.12.1983	16	9.56

This tax is included in the basis of VAT assessment and is deductible when VAT is deductible, that is to say it is only levied once, in the case of re-sale.

V. GAS PRICES IN THE VARIOUS COUNTRIES

1. FR OF GERMANY

2. FRANCE

3. ITALY

4. NETHERLANDS

5. BELGIUM

6. G.D. OF LUXEMBOURG

7. UNITED KINGDOM

8. IRELAND

9. DENMARK

1. FR OF GERMANY

(a) Situation in the gas industry

Several hundred gas companies operate in the FR of Germany and may be classified into three categories:

(i) producers of natural gas (6 companies);

(ii) gas transporters (Ferngasgesellschaften) (9 companies);

(iii) gas distributors (499 companies).

The producers and transporters sell gas to certain large consumers and also supply the distributors.

The latter are therefore mainly retailers, although some of them also produce town gas.

In 1983 sales (natural and town gas) were as follows:

%

Sellers	Buyers					
	Industry and power stations	Households	Commerce and handicrafts	Government depts	Heating stations and others	Total
Natural gas producers	6.6	-	-	-	0	6.7
Gas transporters	25.0	-	0	0	0	25.0
Distributors	26.7	26.7	5.4	5.2	4.3	68.3
Total	58.3[a]	26.7	5.4	5.2	4.3	100

[a] Including 10.9% power stations.

'Interruptible' supplies account for 10% of total deliveries and represent 34 485 consumers mainly supplied by the distribution companies.

At the end of 1983 the number of gas customers was as follows:

	No of customers (1 000)	Standard consumers
Households	7 735	
of which tariffs	(4 435)	D_1 D_2
of which standard contracts	(3 300)	D_3 D_4
Commerce, small industries	310	I_1 I_2
Government departments	39	
Industry	24	I_3 I_4 I_5
Others	5	-

In addition, 682 000 households were heated by heating stations run on gas.

The majority of customers receive gas via the distributors. The producers and transporters supply only a small number of large consumers directly, i.e. power stations and industrial companies (some 1 600 customers).

Two additional companies, amongst the largest in the country, have been added to the gas price survey in the Federal Republic of Germany in order to improve coverage of regional differences. These are:

(i) VEW Dortmund;

(ii) Energieversorgung Weser-Ems.

The former is as gas transporter (Ferngas) supplying distributors as well as its own customers. The prices indicated in this study are those applied to its own household and industrial customers. The company supplies a total of 33 300 million kWh per year.

The latter is a distributor serving a very large area in Lower Saxony. It supplies more than 20 000 million kWh of gas per year.

Natural gas dominates the market. Town gas now represents only 1% of requirements. It is for this reason that the prices covered by this study refer to natural gas only.

The sources of natural gas are diverse, as can be seen from the following:

%

	1980	1981	1982	1983	1984
National production	30.5	33	31	32.5	30.7
Imports from the Netherlands	37	32	33	33	29.9
Imports from the USSR	17	20	20	20	25.1
Imports from Norway	15.5	15	16	14.5	14.1
Imports from Denmark	-	-	-	-	0.2
	100	100	100	100	100

Since September 1984 the Federal Republic of Germany has been receiving gas from the Danish fields in the North Sea.

(b) Taxes

Gas sales are subject to value-added tax (VAT), the rates of which have been as follows:

13% 1.7.1979 to 30.6.1983;

14% since 1.7.1983.

These rates are applied to the price net of tax. VAT is deductible for industrial and commercial users.

(e) Household prices - tariffs

In accordance with German law (Bundestarifordnung Gas) the distribution companies must offer two-part tariffs to small consumers. These tariffs must contain a standing charge for meter rental and reading and a commodity rate for all uses of gas. Very often three tariffs are offered with various combinations of standing charge and commodity rate.

These tariffs are published and apply to standard consumers D_1 and D_2 (cooking and hot water). Above this level a system of contracts (Sonderverträge) prevails. The law does not require publication of these contracts, which are drawn up by the gas distribution companies.

For households the tariffs are generally of the two-part type, with a standing charge and a commodity rate. However, variations exist as follows:

(i) a single two-part tariff with four degressive price blocks (Stuttgart);

(ii) one-part tariff, without a standing charge (for central heating D_{3b} in Düsseldorf and for D_4 in Dortmund);

(iii) a tariff which takes account of boiler capacity (D_4 in Frankfurt/Main).

In common with the regulations governing electricity prices there is a ceiling price which cuts across the degressivity curve. The contracts for all household uses are annual, renewed by tacit agreement. The tariffs and the terms of the contracts are amended at the instigation of the distribution companies. These changes are made as the need arises and may be annual or less frequent. Normally prices are reviewed in October, before the winter season.

(d) Household prices - analysis

The results are shown in Tables 1 to 4 in the annex. Some prices are not available for some of the intermediate years, owing to survey difficulties. Furthermore, two new places have been covered as from 1984 or 1985, but it was not possible to calculate prices for the previous years.

However, the information available is sufficient for a more or less complete analysis.

In 1984 there were again large discrepancies in the price increases recorded. Between January 1984 and January 1985 increases varied between 0% and 23%, depending on the town and the level of consumption. In most cases the largest consumers (for domestic heating) had to contend with the larges increases. However, there were exceptions, e.g. Hamburg.

The following table summarizes current price increases, including VAT, over a period of five years:

1985/80 in %

Standard consumers	Hamburg	Hannover	Düsseldorf	Frankfurt	Stuttgart	Munich
D_1	29	68	52	20	46	64
D_2	31	58	50	30	53	55
D_3	33	77	59	35	73	71
D_{3b}	32	79	67	43	78	73
D_4	44	80	80	63	79	69

During the same period the GDP implicit price index rose by around 17%, which means that in every case gas became more expensive in real terms.

In addition, regional price differences in the Federal Republic of Germany remain considerable as a result of the decentralization of companies and their freedom to fix tariffs. A further aspect of these regional differences is provided by the addition of two new places to the survey. In 1985 differences of between 30% and 45% between places were recorded. The lower the consumption level, the greater the regional price differences. The reasons are the distances over which the natural gas has to be transported and distribution costs at local level.

In 1985, out of the eight areas surveyed, the lowest prices were found in the Weser-Ems region, and the highest prices in Stuttgart. However, it is not possible to divide the areas into firm price categories, as price increases always vary from region to region. The furthest we can go is to observe that over a long period Frankfurt/Main and Düsseldorf often have the prices which are nearest to the average or median. Düsseldorf has been selected as the German example for international comparison.

Another method of obtaining a reference value in the Federal Republic of Germany is to calculate the median price. In 1985 prices are as follows:

Standard consumer	DM/GJ
D_1	42.13
D_2	33.00
D_3	21.05
D_{3b}	19.70
D_4	18.85

This median does indeed have a representative value, as the eight companies surveyed cover the Federal Republic of Germany from North to South and supply a large proportion of domestic customers.

Prices vary not only from region to region and year to year, but also to a considerable extent according to consumption volumes. This is the concept of tariff degression, which is based on the two-part tariffs generally applied. Such a system of degression can in

1985 mean a unit price reduction between a consumption of 8.37 GJ/year and 1 047 GJ/year (price ratio D_4/D_1) of 50-60%, depending on location.

Finally, what is the present position of natural gas vis-à-vis competitive forms of energy? Regional price differences mean that there is no single answer to this question. However, if the median price calculated above is taken as a reference, gas turns out to be much less expensive than electricity for all uses and approximately 20% cheaper than extra-light fuel oil for heating, inclusive of all taxes, when a quantity of 2-5 m^3 is purchased.

(e) Industrial prices - tariffs

Above the level of the small professional users (standard consumer I_1 in this study) who have similar tariffs to household users, there are no published tariffs for industry in the Federal Republic of Germany. All prices result from contracts concluded freely between the buyers and the sellers, the terms of which are not published.

Nevertheless, these contracts are based on simple formulae for the calculation of prices, which can be divided into two categories:

(i) two-part formulae comprising:

1. annual standing charge (Grundpreis) which depends on the capacity of the user's installation;
2. single commodity rate (Arbeitspreis - DM/kWh);

(ii) three-part formulae comprising:

1.1. annual meter rental (Meßpreis),

2. offtake charge (Leistungspreis) based on the load factor (DM/kWh),
3. single commodity rate (Arbeitspreis - DM/kWh).

All contracts are concluded for a period of one year and are renewable (if not terminated by one or the other party). The terms are modified by the seller when the contract is renewed.

Old fixed-price contracts no longer exist, and the conditions of present-day contracts are the same for all users with the same offtake.

Alongside these contracts for non-interruptible supplies there are also those for interruptible supplies. The conditions in such contracts vary considerably from one distributor to another and cover:

(i) the length of interruption, which can be unlimited or up to 42 days, taking into account the capacity of the user's polyvalent installations;

(ii) the notice, which is always short (between 30 minutes and 6 hours);

(iii) the price level, which results from either the abolition of the standing charge (leaving only a commodity rate), a very large reduction on the standing charge and offtake charge, or from a reduced monthly commodity rate based on the fuel oil price quotations published by the Federal Statistical Office.

In general the price for interruptible supplies is between 15% and 30% below that for firm supplies for similar volumes of consumption.

(f) Industrial prices - analysis

The results are shown in Tables 5 to 8 in the annex.

For various reasons it was not possible to collect the prices for 1980-83 in certain cities. Furthermore, some standard consumers (I_5 for example) do not exist everywhere, and where a particular type of consumer is not found no price can be given. In Munich, for reasons of secrecy, only an average price has been given for large industrial consumers as a whole (I_3, I_4, I_5).

Also, two new regions have been surveyed, and prices are indicated as from 1984 or 1985, although it was not possible to calculate prices for previous years.

Despite these disadvantages, the main results can be analysed. 1984 again saw a number of price increases, the extent of which varied considerably. Between the beginning of 1984 and the beginning of 1985 increases of between 0% and 13%, depending on region and level of consumption, were recorded. The following table summarizes increases in current prices net of VAT over a period of 5 years:

1985/80 in %

Standard consumers	Hamburg	Hannover	Düsseldorf	Frankfurt	Stuttgart
I_1	- 6	86	51	49	-
I_2	57	95	58	47	64
I_{3-1}	65	91	60	47	65
I_{3-2}	74	84	61	44	68
I_{4-1}	78	-	62	48	68
I_{4-2}	78	-	62	49	70

In general the larger consumers have had to contend with the largest increases. This means that commodity rates have increased more than standing charges. In other words, the cost of the gas itself has increased much more than the cost of transport and distribution.

These increases thus reflect the development of the price of imported gas, which is linked to oil prices.

During the same period the GDP implicit price index increased by 17%. This means that gas for industrial use became more expensive in real terms.

Regional price differences in the Federal Republic of Germany also remain considerable, as a result of the companies' freedom to make their own contracts. The addition of two more survey regions provides a new aspect of regional differences, which in 1985 stand at between 23% and 45%. The differences are the smallest in the case of the largest industrial consumers.

One of the causes of geographical price differences is transport distance. The lowest prices are found in the areas near to the fields (Weser-Ems), and the highest prices in the most distant places (Stuttgart).

Another factor is the volume consumed (tariff degression). In 1985, a hundred-fold increase in volume entails a unit price reduction of 10-19%, depending on location (price ratio I_4/I_2).

In addition to the volume consumed, the regularity with which the consumer takes gas from the mains network (load factor) always has an effect on the price. This can be seen by comparing the prices for standard consumers I_{3-1} with I_{3-2} and I_{4-1} with I_{4-2} in the tables in the annex. Improving load factor by a 20-25% reduction in maximum daily offtake results in unit price reductions of around 2-7% (see I_3 and I_4).

All these factors explain the large number of recorded prices which are spread, almost at random around a central value. Although difficult to obtain, this central value can provide an interesting pointer to a price which is more or less representative for the Federal Republic of Germany. As it was not possible to establish the mode of distribution, the simple average and the median for the eight regions surveyed in 1985 were calculated, as follows:

DM/GJ

Standard consumer	Average price	Median
I_1	17.00	16.28
I_2	15.70	15.33
I_3	14.71	14.33
I_4	14.05	14.09
I_5	13.80	14.09

The discrepancy between average and median proves that distribution is not symmetrical, probably because of the missing prices. Furthermore, the average and median degression curves do not have the same slopes and intersect between I_3 and I_4. Given that average consumption by industrial users is between 30 000 and 40 000 GJ per year (standard consumer I_3), the representative price net of VAT in the Federal Republic of Germany at the beginning of 1985 was around DM 14.50 per GJ (GCV) or DM 16 per GJ (NCV)).

At the same time competitive products were being offered at the following prices net of VAT:

Ordinary heavy fuel oil: DM 16/GJ NCV;

Heavy fuel oil with 1% sulphur: DM 17/GJ NCV;

Extra-light fuel oil: DM 19/GJ NCV.

The above prices are for bulk deliveries to industry. The advantage of natural gas is not as clear-cut in industry as in the domestic sector, which means that the penetration of natural gas is likely to be slower.

(a) Situation in the gas industry

In France gasworks gas has virtually disappeared from the market, and this study therefore covers only natural gas.

The breakdown of natural gas sales in 1984 within the country is as follows:

%

Customers	Sellers					
	Gaz de France[1]	Private companies and authorities[2]	Gaz du Sud-Ouest[3]	CEFEM[4]	SNEA (P)[5]	Total
Household uses (individual and collective)	35.6	1.2	-	-	-	36.8
Industry	36.9	0.5	4.6	4.5	1.5	48.1
Public power stations (EDF)	0.2	-	0.0	0.1	1.0	1.4
Commercial uses and other uses	12.8	0.9	-	-	-	13.7
Total	85.6	2.6	4.6	4.6	2.5	100

[1] Represented in this study by Toulouse (except I_4 and I_5), Lille, Paris, Lyon and Marseille.

[2] Represented in this study by Strasbourg.

[3] Represented in this study by Toulouse (I_4 and I_5).

[4] CEFEM = Compagnie Française du Méthane.

[5] SNEA (P) = Société Nationale Elf Aquitaine - Production.

The national company Gaz de France thus dominates the domestic and industrial market. Its direct sales of gas are broken down as follows:

%

	1980	1981	1982	1983[1]	1984[2]	Standard consumers
Household uses: heating tariffs	26.8	26.6	27.1	27.4	31	D_3 D_{3b}
Household uses: other tariffs	4.9	4.5	4.5	4.2		D_1 D_2
Collective heating[3]	9.9	10.0	10.6	10.8	11	D_4
Commercial and similar uses	15.0	14.4	15.0	15.5	15	I_1 I_2
Industry	43.4	44.6	42.8	42.1	43	I_3 I_4 I_5
	100	100	100	100	100	

[1] Revised figures.

[2] Provisional figures.

[3] Representing 1 400 000 dwellings (end of 1984).

At the end of 1984 the total number of customers was 8 443 000 broken down as follows:

Households: heating tariffs: 3 600 000;

Households: other tariffs: 4 509 000;

Commercial and similar uses: 318 000;

Industry: 16 000.

Supplies of natural gas vary as regards both origin and point of entry:

%

		1980	1981	1982	1983	1984
National production (South-West)		28.1	25.5	25.6	22.2	22.5
Imports	Netherlands	37.5	31.0	20.1	23.6	23.5
	FR of Germany	3.9	3.8	4.2	1.8	-
	USSR	13.2	15.0	14.3	12.4	15.7
	Norway	9.3	9.8	9.6	8.5	8.2
	Algeria	7.9	14.9	26.1	28.1	29.9
	Others	-	-	0.1	3.4	0.2
		100	100	100	100	100

(b) Taxes

Since 1 July 1982 sales of gas have been subject to VAT at the rate of 18.6% (17.6% before then). VAT is deductible for industrial and commercial consumers who have not opted for flat-rate payment.

(c) Household prices - tariffs

The tariffs for 'retail' or 'semi-wholesale' sales are of the two-part type, with a standing charge and a commodity rate. Standing charges are the same throughout the country. The commodity rate is standardized for the smallest domestic consumers (cooking and hot water) but there are six price zones for larger consumers (heating).

1984 saw the introduction of a range of new domestic tariffs, resulting in changes mainly on the heating side. Tariff B2 'Heating' was replaced by a series of tariffs, including one which is season-linked.

These new tariffs are summarized in the following table, which gives prices net of tax valid as from 1 January 1985 in the cities covered by the survey (Paris, Lille, Lyon, Marseille, Toulouse) and situated in Zone 1 of the 'Gaz de France' tariff system.

Tariffs (Zone 1), January 1985

Standard consumers	Tariff	Standing charge FF/year	Commodity rate		
				c/kWh	FF/GJ
D_1 D_2	B0	214.68		28.36	78.78
	B1	860.64		19.50	54.17
D_3	3Gb	979.68		18.80	52.22
D_{3b}	B2I	1 123.68		18.32	50.89
D_4	B2S	3 775.68	winter[1]	18.29	50.80
			summer	15.13	42.03

[1] Winter consists of the five months from November to March.

In the case of tariffs 3Gb and B2, commodity rates are higher in outlying parts of the transport network (Zones 2 to 6). The difference between the two ends of scale is around 10%. For the season-linked tariff B2S, standard consumer D_4 was assumed to take 77% of total gas consumption during the winter period.

These new tariffs are more favourable at the following annual consumption levels:

B0	1 100	-	7 300	kWh	3.96	-	26.3 GJ
B1	7 300	-	17 000	kWh	26.3	-	61.2 GJ
3Gb	17 000	-	30 000	kWh	61.2	-	108 GJ
B2I	>		30 000	kWh	>		108 GJ
B2S	>		300 000	kWh	>		1 080 GJ

Tariff B2I can be slightly more favourable than tariff B2S around 300 000 kWh per year, depending on the seasonal breakdown of consumption. This is the case for standard consumer D_4 (collective heating). The table gives the price according to tariff B2S, i.e. 52.38/GJ, whilst the price according to tariff B2I would be 0.8% lower at FF 51.96/GJ.

(d) Household prices - analysis

The prices are given in Tables 9 to 11 in the annex. Between the beginning of 1980 and the beginning of 1985, the tax-inclusive prices of gas for domestic users increased by between 82% and 125%. The largest increases were for the higher levels of consumption, the effect of which is to reduce tariff degression. Gas for heating went up more than gas for cooking.

The increases were spread over the years studied, although there were two periods, in 1981 and 1984, when increases were particularly sharp. Rises between January 1984 and January 1985 ranged from 14% to 17%. This was a result of several tariff parameter modifications with effect from:

(i) 15 February 1984;

(ii) 5 October 1984;

(iii) 1 January 1985.

Since 4 January 1980 Gaz de France prices for domestic consumers have been standardized, and regional differences no longer exist (with the exception of Strasbourg, which is not served by Gaz de France and where a different tariff system operates).

The decentralization of natural gas supply points and inter-connections in the supply grid have ended geographical price differences.

All increases in the price of gas to the consumer were a direct result of the rising cost of the imported natural gas. During the period taxation remained fairly constant, with a 1% rise in VAT during 1982.

Tariff degression decreased during the study period. The difference in unit price between D_1 and D_4 fell from 60% in 1980 to 50% in 1985. This means that when the volume consumed increases a hundred-fold the price per unit of gas goes down by half.

During the period 1980-85, the French GDP implicit price index went up by 57%, i.e. much less than gas prices. This means that gas became more expensive in real terms, i.e. in constant francs. This phenomenom continued into 1984 and 1985. Despite this relative setback, natural gas remains reasonably strong in relation to competitive forms of energy. The January 1985 price of natural gas for cooking is around the same per GJ NCV as for butane sold in portable cylinders.

For individual central heating it is about 5-8% cheaper per GJ, inclusive of all taxes, than domestic fuel oil. For collective central heating in the Paris area natural gas costs the same, inclusive of all taxes, as anthracite and heavy low-sulphur fuel oil (less than 1% sulphur), whilst being at a definite advantage from the quality point of view.

Finally, natural gas remains half as expensive as electricity for all uses.

As a result, gas consumption - both total deliveries to household consumers and average consumption per customer - continues to grow.

Last year average consumption per individual household customer went up by 3.9% to 9 730 kWh (35 GJ) per year, though demand was also stimulated by the severity of the 1984/85 winter.

(e) Industrial prices - tariffs

For the cities selected for this study, tariffs differ according to the seller:

Lille, Paris, Lyon, Marseille (I_1-I_5): Gaz de France

Toulouse (I_1-I_3): Gaz de France;

Toulouse (I_4-I_5): Société du Gaz du Sud-Ouest;

Strasbourg: Gaz de Strasbourg.

Gaz de France has two types of tariff:

(i) B2 tariffs, described in (c), for 'semi-wholesale' sales to standard consumers I_1 and I_2;

(ii) more complex subscription tariffs, known as S tariffs, for large industrial customers with an annual consumption of more than 5 000 000 kWh, or 18 000 GJ (I_3, I_4, I_5).

Tariff B2I is applied to small commercial and industrial consumers type I_1, and tariff B2S to I_2. In the latter case there is a minimum charge equivalent to 70 times the maximum subscribed offtake at the summer commodity rate, i.e.:

$$\text{minimum charge} = 70 \times \frac{\text{annual consumption}}{\text{load factor}} \times 15.13 \text{ c}$$

This calculation assumes that standard consumer I_2 took five-twelfths of its total gas consumption during the winter period.

The S tariffs for large industrial customers have retained the same structure since being introduced in December 1979. This structure was described in detail in the previous Eurostat report on gas prices (ISBN 92-825-4518-0, qv).

However, the tariff parameters may be revised by:

1. applying index N_a to all items in the formula;
2. an absolute increase in commodity rates.

The last revision took effect on 1 January 1985, as follows:

$N_a = 761.8$;

Absolute increase: 4.643 c/kWh.

This represents an overall indexation of:

$$\frac{761.8}{426} = 1.7822$$

plus an increase of FF 12.897/GJ on the commodity rates.

The following table summarizes the results of the January 1985 revisions:

Standard consumers	Tariff	Annual subscription charge FF/year	Monthly standing charge FF/GJ[1]	Commodity rate FF/GJ	
				1st block[2]	Remainder
I_3	SR	42 917	77.59	36.54	35.56
I_4 I_5	ST	42 917	60.20	36.29	35.31

[1] Per GJ of maximum daily offtake.

[2] Limit set at 24 000 000 kWh/year, i.e. 86 400 GJ/year.

This table applies to the Paris area; prices in other regions differ slightly depending on transport distances, as a result of the toll system.

In addition to these regular supply tariffs, curtailable supply contracts are also offered; the terms of these were also described in the previous study mentioned above.

(f) Industrial prices - analysis

The prices are shown in Tables 12 to 14 in the annex.

During the period 1980-85 prices rose steadily, with two sharp increases during 1981 and 1984. This was due to the tariff index N, which is influenced by oil prices. Over the period as a whole, VAT-exclusive increases for the Paris area ranged from 108% to 129%. This higher the level of consumption, the larger the percentage increases, resulting in a levelling-out of the tariff degression curve. Thus the reduction of Gaz de France unit prices between standard consumers I_1 and I_5 fell from 37% in 1980 to 30% in 1985.

Between the beginning of 1984 and the beginning of 1985, increases of 8-12% were recorded for small commercial and industrial consumers (I_1 and I_2), whilst increases for large consumers (I_3, I_4, I_5) were around 20%. These increases reflect the various tariff parameter adjustments effective as from:

(i) 15 February 1984;

(ii) 5 October 1984;

(iii) 1 January 1985.

This means that natural gas prices have just passed through a rather hectic period.

Since 4 January 1980 tariffs for commercial and similar users (I_1 and I_2) have been standardized throughout the country, with the exception of Strasbourg, which is not served by Gaz de France.

For the larger industrial users (I_3, I_4, I_5), pric differences between the major cities amount to only a few per cent. The Toulouse area is the cheapest, because of its proximity to the Lacq gas fields.

Load factor has a minor influence on prices. The reduction in the unit price as a result of an improvement in load factor from 200 to 250 days (I_3) is 2.4%; an improvement from 250 to 330 days (I_4) gives a 2% reduction. This reduction for more regular offtake has become smaller in recent years. A more regular offtake from the grid is achieved mainly through interruptable supply contracts and stocks.

A comparison of the development of gas prices since 1980 with the development of the prices of all goods and services (increase in GDP index = + 57%) shows that natural gas has become twice as expensive in constant francs in the space of five years. However, the consequences of this increases are less significant if competitive forms of energy have suffered a similar trend.

After a period of instability, it is interesting therefore to take stock of the situation by trying to compare current market prices (net of VAT) per gigajoule NCV, for example in the Paris region:

	(FF/GJ (NCV))
Natural gas for commercial and similar uses (I_1 and I_2)	51-59
Natural gas for industry (I_3 and I_4)	42-46
Natural gas for large industries (I_5)	41
Ordinary No 2 heavy fuel oil	46-48
Heavy fuel oil $<$ 1% sulphur	50-52
Domestic fuel oil (bulk)	70-71
Highly-volatile coal (bulk)	34
Anthracite (bulk)	61

Natural gas seems to be quite competitive, except against ordinary coal, which is however handicapped by supply problems, long delivery times, handling difficulties, lower boiler efficiency and air pollution.

3. ITALY

(a) Situation in the gas industry

The structure of the gas industry, which has a considerable influence on price formation, reveals two levels:

(i) SNAM, part of the ENI group, which has a virtual monopoly (about 98%) on the transport and wholesale distribution of natural gas. In particular, SNAM supplies gas to industries consuming over 500 000 m^3 a year (i.e. approximately 19 000 GJ/year and to the distribution companies[1].

(ii) The gas distributors, whose function is to distribute gas to small consumers. They receive natural gas from SNAM and re-sell it either as it is or after processing. These distributors are either municipal undertakings, concessionaries or local authorities.

SNAM applies a standard national tariff (I_3, I_4, I_5), which is negotiated with the industrial association Cofindustria.

On the other hand each distributor[2] issues its own tariffs according to a method worked out by the Interministerial Price Committee (CIP).

The following table illustrates the pattern of gas sales:

%

		1982	1983	Standard consumers
SNAM direct sales		57	55	
of which:	industries	38.5	35.3	I_3 I_4 I_5
	power stations	10.5	11.7	
	chemical synthesis	7	6.6	
	motor fuel	1	1.1	
Sales via distributors		43	45	
of which:	small household consumers	10	9	D_1 D_2
	individual central heating	17	19	D_3
	collective heating	8	9	D_4
	non-domestic users	8	8	I_1 I_2
		100	100	

[1] In exceptional cases, one or two large industrial consumers may be supplied by local distribution companies and SNAM may also supply industrial consumers whose consumption is lower than the limit stated.

[2] 1 463 companies serving 1 835 areas (end of 1983).

At the end of 1983 the number of consumers was broken down as follows:

Supplied by SNAM	industry	3 025
	power station	17
	chemical synthesis	21
	others	324
	distribution companies	1 463
	Total	4 850
Supplied via distributors	small household consumers	4 920 000
	individual central heating	3 400 000
	others[1]	280 000
	Total	8 600 000

[1] Collective heating, craft trades, small industry and the tertiary sector.

In addition, collective central heating serves 1 million families.

Natural gas dominates the market, either in its natural state or used as a raw material for town gas.

In the cities selected for this study the nature of supplies by the distribution companies was as follows:

Milan: gas based on natural gas or petroleum products and natural gas distributed as such from June 84 (740 000 consumers);

Turin: natural gas resold as such (570 000 consumers);

Genoa: natural gas resold as such;

Rome: three-quarters of the urban area supplied with natural gas (580 000 consumers), one quarter supplied with gas manufactured from natural gas;

Naples: natural gas mixed with air.

These five cities account for over one third of the population supplied by the gas distribution network in Italy.

The sources of natural gas are as follows:

	1980	1981	1982	1983	1984
National production	47	50	48	45	42.7
Imports from:					
Netherlands	24	23	19	18	14.2
USSR	24	27	33	29	23.7
Libya	5	-	-	-	0.1
Algeria	-	-	-	8	19.4
	100	100	100	100	100

Imports of liquid gas from Libya were suspended in August 1980, but a new contract was signed in March 1984 for further supplies during 1984 and 1985.

But the most significant factor is the supply of large quantities of gas from Algeria, which began to arrive by pipeline across the Mediterranean in August 1983 in accordance with the contract signed between the two countries. This has changed the pattern of supplies, increased availability and affected price levels.

(b) Taxes

The tax system was amended by Law No 853 of 19 December 1984, which took effect on 1 January 1985. VAT rates were amended and standardized. There are, however, many exemptions. VAT rates on the gas price net of VAT have developed as follows:

Periods	Household	Non-domestic
1.12.1977-31.12.1980	6	14
1.1.1981-30.9.1982	8	15
1.10.1982-31.12.1984	8	18
1.1.1985-...	9	9 or 18

The standard rate of 18% is applied to non-domestic consumption, except for the extractive and manufacturing industries (including printing and publishing), which enjoy the reduced rate of 9%. For the purpose of simplification, this study assumes a rate of 18% for standard consumers I_1 and I_2 and 9% for I_3, I_4 and I_5.

In addition, since February 1977 sales of natural gas for household use have been subject to a consumption tax (imposta consumo), as follows:

September 1979 - February 1980 = LIT 36.50/m^3;

Since March 1980 = LIT 30.00/m^3.

For natural gas as such, LIT 30/m^3 is the equivalent of approximately LIT 788/GJ GCV.

This tax is also applied to town gas, proportionally to the amount of natural gas used for manufacture. Rates can therefore vary according to the composition of gases. This is illustrated by the following two examples:

Year	Milan		Rome	
	LIT/m^3	LIT/GJ	LIT/m^3	LIT/GJ
1980	14.50	702.8	12.80	766
1981	12.17	589.8	10.52	629
1982	12.31	596.6	10.52	629
1983	12.54	607.8	10.37	620
1984	12.58	609.7	10.61	634
1985	12.55	608.3	10.21	610

Since November 1980 (Law No 784), domestic consumers in the South of Italy ('Cassa per il Mezzogiorno' zone) have been exempt from this tax. The same applies to Naples.

This tax is included in the basis of VAT assessment.

(c) Household prices - tariffs

A new system of tariffs for gas consumers supplied by the public distribution companies has been set up by CIP Regulation 33/84.

There are three levels:

1. Household uses, cooking and hot water;
2. Individual heating, alone or combined with other uses;
3. Other uses.

For each level there is a two-part tariff consisting of a standing charge and a commodity rate.

The method of calculating standing charges has been changed to the following:

(i) monthly flat-rate charge independent of meter size for levels 1 and 2;

(ii) price per 'flame' and per month for level 3 (the number of flames depending on the size of the meter and thus on maximum offtake).

Charges are standardized for all distributors in Italy.

Commodity rates must be degressive from level 1. At level 3 prices must be equal to or lower than at level 2 and may vary between consumption blocks. Each individual distribution company fixes commodity rates in accordance with its costs.

The system can be summarized as follows:

Level	Standing charge	Commodity rate	Standard consumers
1	LIT 2 300/month	maximum	D_1 D_2
2	LIT 4 600/month	lower	D_3 D_{3b}
3	LIT 400/month/flame	lower than or equal to level 2	D_4 I_1 I_2

Several examples of the new domestic tariffs applicable in 1985 are summarized below for the major cities and for each of the gas types distributed in Italy:

Turin (natural gas)

1 m^3 = 38.1 MJ (GCV)

Level	Standing charge LIT/month	Commodity rate LIT/m^3
1	2 300	436.80
2	4 600	427.70
3	400 x flames	414.28

145 flames for D_4

Milan (town gas)

1 m^3 = 20.633 MJ (GCV)

Level	Standing charge LIT/month	Commodity rate LIT/m^3
1	2 300	309
2	4 600	290
3	400 x flames	290

100 flames for D_4

Milan (natural gas)

1 m^3 = 38.1 MJ (PCS)

Level	Standing charge LIT/month	Commodity rate LIT/m^3
1	2 300	450.5
2	4 600	425
3	400 x flames	400

80 flames for D_4

Rome (town gas)

1 m^3 = 16.66 MJ (PCS)

Level	Standing charge LIT/month	Commodity rate LIT/m^3
1	2 300	324.97
2	4 600	286.04
3	400 x flames	286.04

394 flames for D_4

Rome (natural gas)

1 m^3 = 38.1 MJ (PCS)

Level	Standing charge LIT/month	Commodity rate LIT/m^3
1	2 300	543.95
2	4 600	443.85
3	400 x flames	425.81

145 flames for D_4

Genoa (natural gas)

$1\ m^3 = 38.1$ MJ (GCV)

Level	Standing charge LIT/month	Commodity rate LIT/m^3
1	2 300	478.66
2	4 600	431.34
3	400 x flames	382.94

200 flames for D_4

(d) Household prices - analysis

The available prices are shown in Tables 15 to 18 in the annex.

Despite a number of gaps resulting from survey difficulties, a relatively full analysis of the results is possible.

Two significant events have occurred in recent months:

(i) natural gas, in its natural state, is now being distributed in the city of Milan;

(ii) the new tariff system has come into effect, abolishing progressive commodity rates and introducing a certain amount of standardization.

As a result:

(i) prices have fallen significantly (by 16-23%) for Milan consumers converted to natural gas;

(ii) price differences between regions have been reduced;

(iii) unit prices have become more degressive, to the advantage of natural gas heating.

All these changes caused various price fluctuations between the beginning of 1984 and the beginning of 1985; there were several slight increases and even a number of reductions, despite a 1% increase in the VAT rate. Natural gas price differences between cities have now been reduced, for example to 4% for individual central heating and 8% for collective central heating. The differences for cooking and hot water are greater (18-20%), as a result of differences in distribution costs.

Prices are slightly lower in the north (e.g. Milan and Turin) than in the south (e.g. Rome).

Of course there are still considerable price differences between natural gas and town gas due to production costs.

This is illustrated by the examples of Milan and Rome, where both types of gas are distributed. Town gas is 27-55% dearer in Milan and 20-30% dearer in Rome. Dissuasive tariffs even exist for town gas, with a progressive unit price for collective heating. This phenomenom is caused by a high standing charge (number of 'flames' fixed at a very high level).

In connection with tariff degression, i.e. the reduction of the unit price as the volume consumed increases, three factors emerge:

(i) degression has become more prominent since 1980;

(ii) natural gas tariff degression is more pronounced (approximately 30% reduction between D_1 and D_4);

(iii) town gas tariff degression is less pronounced (16-20% reduction between D_1 and D_4).

This again confirms the fact that tariffs favour the use of natural gas for space heating.

A study of the development of current prices since 1980 reveals that gas is becoming more expensive more quickly than goods and services as a whole (increase of 115-195% against 90% for the GDP implicit price index). Despite this price increase in real terms, gas remains competitive against other forms of energy.

At the beginning of 1985 tax-inclusive price levels per GJ NCV were as follows:

	(LIT/GJ (NCV))
Natural gas for cooking and hot water (D_1 and D_2)	16 500-22 000
Town gas for cooking and hot water (D_1 and D_2)	20 600-28 000
Natural gas for individual heating (D_3)	14 800-15 700
Town gas for individual heating (D_3)	18 000-22 000
Natural gas for collective heating (D_4)	14 000-15 150[1]
Heating gas oil (quantities of 3-5 m^3)	18 000-18 300[1]
Stove oil (20 l canisters)	20 000-20 100
Electricity for cooking and hot water	39 000-40 000

[1] LIT/GJ (PCI).

This means that natural gas is half as expensive as electricity for cooking and hot water and almost 15% cheaper than gas oil for heating.

(e) Industrial prices

A distinction must be made between the two systems of gas supply.

1. Small industrial and commercial consumers (I_1 and I_2), who are supplied by the local distribution companies at small-consumer tariff level 3 (other users). The tariff system is explained in paragraph (c) above. The tariffs are of the two-part type, with a standing charge depending on the number of 'flames' and a commodity rate (usually single, sometimes two-block).

2. Other industrial consumers (I_3, I_4, I_5), who are supplied by SNAM and charged according to a standardized national tariff. The new SNAM tariff, introduced as from January 1984, has now entered the final application phase following a one-year transition period. This means that customers with a maximum offtake of 4 000 m^3 per day are now being charged on the basis of actual maximum daily offtake. A detailed description of this tariff and its variants can be found in the Eurostat study on Gas prices 1978-1984 (ISBN 92-825-4518-0).

The basic formulae (high load factor) can be summarized as follows:

Monthly load factor charge (LIT)

$$P_g \times 661.5 \times \left(0.6 \times \frac{SO}{116} + 0.4 \frac{PNA}{146.3}\right)$$

Basic commodity rate (LIT/m^3)

$$271.823 \times \left(0.7 \times \frac{ATZ}{282.813} + 0.3 \times \frac{BTZ}{322.164}\right)$$

Parameter values:

	January 1984	January 1985
SO (Istat index of industrial workers' salaries)	118.9	130.7
PNA (Istat index of wholesale prices of non-agricultural products)	151.4	166.4
ATZ (price of normal heavy fuel oil recorded by the CIP)	304.085	369.667
BTZ (price of low-sulphur heavy fuel oil recorded by the CIP)	334.593	406.600

In 1985 the factor Pg represents daily offtake or, for the standard consumers covered by this report:

$$\frac{\text{yearly consumption } (m^3)}{\text{load factor (days)}}$$

The above figures take account of the 1% rebate for regular payment, but not the 4% seasonal discount given during the summer.

In addition to this tariff for firm deliveries, there is also a system for interruptible supplies, details of which can be found in the previous study mentioned above.

All tariffs refer to a standard cubic metre (38.1 MJ GCV).

(f) Industrial prices - analysis

The available results are shown in Tables 19 to 22 in the annex. Small commercial and industrial consumers (I_1 and I_2) are supplied by the local distribution companies and are charged in the same way as domestic customers. The new tariff system introduced in 1985 has abolished progressive prices and brought about various changes. In most cases prices have changed little in comparison to 1984; some have gone up, and some have even fallen slightly.

However, in Genoa prices are rapidly catching up with those in other cities.

The most significant new factor is the introduction of natural gas, now available in its natural state in Milan at prices very close to those in other cities.

These changes have considerably reduced differences in natural gas prices between the various regions of Italy. Price differences between the major cities in 1985 amount to 12-13%.

But there are, of course, considerable differences between natural gas and town gas prices. Two typical examples are provided by Rome and Milan, where both types of gas are distributed. Town gas is 35% dearer in Milan and 60-75% dearer in Rome (1985 figures).

For the larger industrial consumers (I_3, I_4, I_5) supplied with natural gas by SNAM, prices are standardized throughout the country (Table 19). Between 1980 and 1985 current prices net of VAT trebled. In contrast to the other countries, increases were smaller for the larger consumers.

Between the beginning of 1984 and the beginning of 1985 increases were sharper than in the previous years (20-26% on prices net of VAT). These recent increases are due to the indexing of heavy fuel oil prices and to the application to the standard consumers cov-

ered by this study of the load factor charge. This calculated according to actual maximum daily offtake, in keeping with the new SNAM tariff.

Another consequence of this tariff system is that prices now differ according to load factor, as can be seen from a comparison of the prices for standard consumers I_{3-1} with I_{3-2} and I_{4-1} with I_{4-2}. A 20-25% improvement in the load factor can now result in a 2-2.5% price reduction; the aim of this is to encourage industrial consumers to spread out their offtake more.

A further incentive is provided by a 4% discount given during the summer.

Interruptible supply contracts represent the final way of reducing demand peaks. In such cases the consumer enjoys a price discount of around 10% to compensate for the cutting-off of gas supplies during certain peak periods (with prior warning).

A comparison of the development of gas prices net of VAT with the development of the price of goods and services as a whole (increase in GDP index since 1980 = 90.7%) reveals that gas has become more expensive in real terms. However, this setback is not as serious as it might seem, as the competitiveness of gas against other sources of energy must also be considered.

The prices net of VAT per gigajoule NCV at the beginning of 1985 were as follows:

	(LIT/GJ (NCV))
Natural gas for small industries (I_1 and I_2)	11 300-13 550
Town gas for small industries (I_1 and I_2)	16 000-23 900
Natural gas for large industries (I_3 and I_4)	10 800-11 100
Natural gas for very large industries (I_5)	9 500
Natural gas, interruptible (I_4)	9 300
Ordinary heavy fuel oil	9 250
Low-sulphur heavy fuel oil	10 200
Liquid fuel oil	11 500
Heating gas oil	15 300
Semi-anthracite	9 900

In many cases gas has the edge, particularly when convenience and efficiency are taken into account.

Finally, it should be mentioned that most industrial consumers now enjoy the reduced rate of VAT (9% instead of 18%). Although VAT is deductible, this change should bring cash-flow advantages to firms.

(a) Situation in the gas industry

The gas industry operates on three levels:

(i) natural gas production (NAM);

(ii) transport, imports, exports and sales to very large customers connected to the main transmission grid (Gasunie);

(iii) distribution (local firms or public enterprises at local level).

The distributors are organized in a national association (Vegin, whose functions include negotiation of purchase prices with the supplier Gasunie and recommendation of tariffs for small consumers (up to 170 000 m^3 per year).

Gas sales on the internal market may be broken down as follows:

%

	1980	1981	1982	1983	1984[1]	Standard consumers
Distribution companies	59	58.8	56.4	52.3	50.5	
of which: small users	42.3	42.5	40.6	38.3	37.2	$D_1 \ldots D_4$
of which: greenhouses	7.8	7.3	6.9	6.0	5.7	
of which: other	9.0	8.9	8.9	8.0	7.6	I_1 I_2
Direct sales by Gasunie	41	41.2	43.6	47.7	49.5	
of which: industry	26.0	26.8	25.6	25.5	26.8	I_3 I_4 I_5
of which: power stations	15.0	14.4	18.0	22.1	22.7	
Total	100	100	100	100	100	

[1] Provisional.

Gasunie supplies gas directly to about 30 power stations, 400 large industrial companies and 147 gas distribution companies, which in turn re-sell the gas to nearly 5 million customers, including 4 700 000 households, 10 000 collective heating units for buildings and 10 000 market gardeners (greenhouse heating).

Despite the decentralized arrangements for distribution, tariffs are uniform and the prices shown for Rotterdam apply to the whole country, with reductions in certain cases in the provinces near the gas fields.

The Netherlands' own gas fields remain the main source of natural gas consumed in the country. Since 1978, however, the Netherlands has imported gas from the Norwegian fields in the North Sea in accordance with a policy of conserving national resources. The requirements of the internal market are covered as follows:

%

	1980	1981	1982	1983	1984
Netherlands gas production	90.6	91.2	90.6	91.8	91.2
Norwegian imports	9.4	8.8	9.4	8.2	8.8
Total	100	100	100	100	100

Home production is broken down as follows:

Groningen: 66%;

Other on-shore fields: 14%;

North Sea fields: 20%.

Here, too, a policy of diversification has been pursued in order to keep the Groningen field in reserve for future contingencies.

(b) Taxes

Sales of gas are subject to a special pollution tax (Heffin brandstoffen luchtverontreiniging), which has been levied at the following rates:

(i) 0.03 cents/m^3 from 1978 to 1981;

(ii) 0.05 cents/m^3 in 1982;

(iii) 0.054 cents/m^3 as from 1983.

In order to avoid double taxation, this tax is calculated only on the tariffs or tariff components which are not linked to fuel oil prices, since the latter already include the pollution tax (factor P).

This tax is included in the basis of assessment for value-added tax (VAT).

VAT is also levied on all gas sales, the rates being:

(i) 18% of the price net of VAT until 31 December 1983;

(ii) 19% of the price net of VAT as from 1 January 1984.

VAT is deductible for industrial and commercial users.

(c) Household prices - tariffs

Since 1980, small users consuming 170 000 m^3 or less per year (6 000 GJ) have been charged under a simple two-part tariff consisting of an annual standing charge and a single commodity rate per cubic metre of gas consumed. These charges are not indexed but are revised periodically. The most recent revision took place on 1 January 1985 and affected only the commodity rate. The current charges are:

(i) standing charge: HFL 57 per year;

(ii) commodity rate: 55.6 cents/m^3.

The standing charge for collective central heating (standard consumer D_4) is HFL 15 per year and per apartment with a minimum of HFL 210 per year, the commodity rate being the same as above.

All these tariffs are based on a standard cubic metre of 35.17 MJ (GCV).

(d) Household prices - analysis

Since the Vegin association and Gasunie could not agree on the tariff level for small consumers, the Minister for Economic Affairs had to arbitrate and issued the 'Regulation on natural gas prices', which imposed a rise of 3 cents per cubic metre for 1984 and 3 cents at the beginning of 1985.

The price movement observed in the last two years is thus the result of this decision. With the standing charge unchanged, it led to annual rises of:

(i) 4-5% for cooking and water heating (D_1, D_2);

(ii) about 6% for space heating (D_3, D_4).

(See Table 23 in the annexe).

Between 1980 and 1985, current prices have increased by between 63% and 95%, with the sharpest rise in 1980. The reason is the change in tariffs and especially the abolition of the 'block' system. Taxation played little part, with a one-point rise in VAT at the beginning of 1984.

Since the standing charge has remained constant while the commodity rate has increased, the degressivity curve has flattened. It is therefore the larger consumers who have suffered the most severe increases. The reduction in tariff degression is very marked: in

1985 the largest consumer (D_4) paid 30% less per unit of gas than the smallest consumer (D_1) as compared with 40% in 1980.

In this period, gas prices increased much more than the price of all goods and services as represented by the implied GDP index (which rose by 19%), i.e. gas is now more expensive in real terms for all household uses. This has led to energy saving by households, which was encouraged by subsidies for thermal insulation of dwellings.

(e) Industrial prices - tariffs

Industrial and commercial uses are subject to a block tariff linked to fuel oil prices (factor P).

As from January 1985, this tariff is as follows:

Blocks m^3	Standard charge HFL/year	Commodity rate cents/m^3
0 - 170 000	57	55.6
170 000 - 1 000 000	-	$(\frac{P}{500} \times 40.0) + 2.8$
1 000 000 - 10 000 000	-	$\frac{P}{500} \times 40.0$
10 000 000 - 50 000 000	-	$\frac{P}{500} \times 38.2$
> over 50 000 000	-	$\left[(\frac{P}{500} \times 38.2) - (\frac{P}{500} \times 1.9)\right] + 0.75$

The first block is charged at the normal household tariff. The prices for the other blocks are degressive and are linked to the factor P, which is the mean price of fuel oil with a sulphur content of 1% in the half year preceding the quarter in question, plus specific taxes, transport and distribution costs (HFL 23 per tonne). This price is the arithmetic mean of the ceiling and floor prices of fuel oil 'FOB barges Rotterdam', published in Platt's 'Oilgram' in US dollars and converted to HFL per tonne. The conversion is carried out at the mean monthly exchange rate published by the ABN bank.

In the first quarter of 1985 the value of P was 620.70 (as compared with 560.51 for the first quarter of 1984).

Because the pollution tax is already included in P, it is added only to the price for the first block.

Customers consuming over 1 million m^3 per year are charged a penalty if the load factor is low.

If the load factor is less than 100 days, the penalty is calculated as follows:

$$1 - \frac{\text{load factor}}{150} \text{ cents/m}^3.$$

If the load factor is between 100 and 150 days, the penalty is 0.27 cents/m^3 on the quantities exceeding 1 million m^3 (or is calculated using the above formula if this would give a lower figure).[1]

This penalty does not affect the standard consumers considered in this study.

A rebate of 0.75 cents on the price per cubic metre is granted on deliveries in the provinces of Groningen, Frisia, Drenthe and part of Overijssel. This rebate must not exceed 5% of the price per cubic metre. It has not been applied to the prices shown in the study, which represent Rotterdam and the rest of the country.

All these tariffs are based on a standard cubic metre of 35.17 MJ (GCV).

In addition to this general tariff, there are also special tariff arrangements for the heating of greenhouses. Quantities of up to 30 000 m^3 per year are charged at the normal tariff for small consumers. For quantities exceeding this level, the price per cubic metre is determined by a formula similar to that for industry:

$$\text{cents/m}^3 = (\frac{P}{500} \times 38.2) + 0.5.$$

The factor P, however, is somewhat different from that used in the industrial tariff. Here the reference value from Platt's 'Oilgram' is the price of fuel oil with a 1.5% sulphur content (instead of 1%) and the allowance for specific taxes and distribution costs is HFL 35.20 per tonne (as opposed to HFL 23).

The resulting commodity rates were in the range 46.3 to 42.5 cents per cubic metre at the end of 1984.

(f) Industrial prices - analysis

The prices are shown in Table 24 in the annex.

[1] 0.26 cents/m^3 added for quantities exceeding 8.8 million m^3 per year.

The prices charged to the smallest industrial consumers I_1 and I_2 developed in parallel with those paid by household users (same tariff), the total rise being 91% of which 38% in 1980 and 6% in 1984. By way of exception from the normal tariffs, the tariff for heavy industry is applied to consumption of over 30 000 m^3 per year for heating of greenhouses. This gave a price of 46.3 cents/m^3 at the end of 1984 and only 42.5 cents/m^3 at the beginning of 1985.

For larger consumers (I_3, I_4, I_5), prices are linked to those for fuel oil and developed accordingly, virtually doubling between 1980 and 1985.

The largest increases occurred between 1980 and 1982. In 1983 prices fell as a result of a drop in prices of heavy fuel oil, and then rose by about 10% between 1984 and 1985. Because of the two tariff systems there is no correlation between price movements for small and large industrial consumers.

For the large consumers the increases are similar regardless of consumption. Thus tariff degressivity scarcely varied. It remains low, the unit price being reduced by only 10% when consumption is increased a hundred fold (I_3 to I_5). If the volume has little effect on the price, the regularity of off-take (load factor) has none, because of the tariff formulae. Thus the prices are the same for I_{3-1}, I_{3-2}, I_{4-1} and I_{4-2}. Moreover, interruptible contracts do not exist, except for power stations. There is no incentive in the tariff system to reduce peak consumption, which is met by increases in production or from stocks.

Since 1980, the price of natural gas to industry has increased much more than the cost of all goods and services (inflation rate approximately 19%). There has thus been a substantial rise in cost in real terms.

These price rises, together with the economic recession, have led to cuts in natural gas consumption by industry. In the last year, however, there has been an upturn in consumption due to substitution of gas for fuel oil, especially in the chemical industry. Natural gas is currently competitive compared with heavy fuel oil. It may be estimated that natural gas prices are 10% lower than those for heavy fuel oil, net of VAT, per gigajoule NCV.

In conclusion it should be noted that natural gas is the main energy source used by industry in the Netherlands, covering 70% of energy requirements. Great importance thus attaches to the analysis of price movements in this sector.

5. BELGIUM

(a) Situation in the gas industry

Two levels may be distinguished in the structure of the gas industry:

(i) import, transmission, deliveries to public distribution organizations and to large industrial consumers (over 33 500 GJ/year) by the company Distrigaz;

(ii) public distribution: households and non-domestic consumers up to 33 500 GJ/year (and even up to 140 700 GJ/year by agreement with Distrigaz) served by municipal undertakings, either individually or grouped together to form associations, with or without the participation of private companies to manage operations.

The whole structure is supervised by the 'Comité de contrôle de l'électricité et du gaz', whose status was altered in 1983. The committee was changed into an independent establishment serving the public interest, whose function is to promote rationalization, coordination and standardization in the management of the electricity and gas sectors. It operates by means of recommendations, especially with regard to tariffs, which are our present concern.

The breakdown of natural gas deliveries within the country is as follows:

Users	1980	1981	1982	1983[1]	Standard consumers
Distrigaz	58.8	52.2	47.2	50	
Industry, firm and curtaible[2] supplies	34.0	34.7	35.4	31.7	I_3 I_4 I_5
Industry, interruptible[3] supplies	13.3	10.2	6.7	9.0	
Public power stations	11.5	10.3	5.1	9.3	
Public distribution	41.2	44.8	52.8	50	
Household uses	28.5	30.6	36.3	33.6	
(Heating tariff)	(26.8)	(29.0)	(34.5)	(31.5)	D_3 D_4
(Other tariffs)	(1.7)	(1.6)	(1.8)	(2.1)	D_1 D_2
Non-domestic uses	12.8	14.2	16.5	16.3	I_1 I_2
Total	100	100	100	100	

[1] Final figures.

[2] Supply may be interrupted by Distrigaz in winter between 15 November and 15 March. The total number of days of interruption per winter period may not exceed 35.

[3] Supply may be interrupted at any time, by either party. There is no limit to the duration of the interruption.

On 31 December 1983, the number of customers (meters in service) was as follows:

Household: 1 882 011;

Non-domestic: 59 961;

Total: 1 941 972.

Natural gas is imported from several foreign gas fields, with a tendency towards diversification. Imports intended for the Belgian market are broken down as follows:

%

Country of origin	1980	1981	1982	1983	1984
Netherlands	78.3	77.6	71.7	59.8	56.3
Norway	21.7	22.4	24.2	20.8	23.3
Algeria	-	-	4.1	19.4	20.3
	100	100	100	100	100

Since 17 November 1982, Algerian natural gas has been arriving through France via the port of Montoire until such time as the Zeebrugge terminal is completed.

At the end of 1984, the contracts for the purchase of gas from the Netherlands were adapted and renegotiated, with the result that conditions will be slightly more favourable in future. The new conditions also provide for a better spread of deliveries in terms of time and for an indexing formula including the price of heating gas oil, which should have some effect on the price at which natural gas is supplied and influence the tariffs applied to the consumer.

(b) Taxes

Sales of natural gas are liable to value-added tax (VAT). The rate levied on the price net of tax has varied as follows:

Until 30 September 1980: 6%;

From 1 October 1980 to 30 June 1981: 16%;

Since 1 July 1981: 17%.

VAT is deductible for non-domestic consumers.

The gas supplied by the public distribution companies is subject to an indirect tax designed to benefit the district authorities in the form of dividends paid to them. This tax, which is difficult to isolate, is a component of the costs and is included in the prices net of tax given in this study.

(c) Household prices - tariffs

Since 1980 the tariff system for small consumers applied by the public distribution companies has not changed. It is a two-part block system with double indexation, and has been described in detail in the previous study 'Gas Prices 1978-1984', Eurostat, ISBN 92-825-4518-0 to which the reader is referred.

Since the basic parameters have remained constant, the movement of prices depends on indexation. The values of the indices are shown below.

	Iga	Igd
January 1980	1.3732	1.0152
January 1981	1.9796	1.0490
January 1982	3.2293	1.0947
January 1983	3.7840	1.1161
January 1984	4.2599	1.1297
January 1985	4.6306	1.1624

(d) Household prices - analysis

The results are shown in Tables 25 and 26 in annex.

In 1980/81, the prices for the small consumers D_1 and D_2 differed from city to city. The difference, however, was small, of the order of a few percentage points.

Since 1 January 1982 the tariffs for all three cities have been the same, the only difference being a larger basic consumption block for Antwerp than Liège or Brussels to compensate for the extra costs involved in reading meters bi-monthly instead of annually. This gives rise to minor differences in price (of the order of 1%) for consumer D_2 only.

The prices for all household consumers followed the same tendency, rising sharply in 1980 and 1981 and slowing down thereafter. Between 1984 and 1985, the increases were only 5 to 7.5% according to the level of consumption, in line with the rate of inflation.

The total increases between January 1980 and January 1985 range from 69 to 168%, the figure increasing with the level of consumption.

There were two reasons for the increases in selling prices:

(i) the rising cost of imported gas, which more than tripled between early 1980 and early 1985 (the effect of the Iga index);

(ii) the increase in the rate of VAT from 6% to 17% during the period under study.

Tariff degression has decreased sharply. The standard consumer D_4, who only paid 36% of the unit price paid by D_1 in 1980, now pays 57% of the D_1 price.

Over the entire period 1980-85, the cost of gas rose much more than that of all goods and services (rise in the implied GDP price index 32%). For a few years, however, the rises in gas tariffs have been more moderate and merely offset the decline in the value of money.

In 1985 the cost of gas is still only two fifths that of electricity for cooking and water heating whereas for space heating it is slightly more expensive per gigajoule NCV than distillate heating oils.

(e) Industrial prices - tariffs

The tariff systems have remained unchanged, like those for household uses.

The Iga and Igd indices are applied to I_1 and I_2 as described in paragraph (c) above.

All industrial consumers who take more than 33 500 GJ per year (I_3, I_4, I_5) are subject to the same Distrigaz tariff system. The only change has been in the indices, as shown below:

G =	January 1980	79.2
	January 1981	108.94
	January 1982	178.053
	January 1983	198.270
	January 1984	222.323
	January 1985	244.022
RDZ =	January 1980	1.146352
	January 1981	1.175864
	January 1982	1.245958
	January 1983	1.299293
	January 1984	1.327432
	January 1985	1.370953

In the present study, four variants have been calculated, covering the range of prices charged to firm and curtailable industrial customers, by applying the following parameters:

Firm deliveries	Cne = 1	and P = 1.1
Firm deliveries	Cne = 1	and P = 1
Deliveries, half curtailable	Cne = 0.5	and P = 1
Deliveries, totally curtailable	Cne = 0	and P = 0.9.

The values of P correspond to the situations shown below:

	Non-specific applications	Specific applications	Raw material
Non-curtailable	1	1.1	1
Curtailable	0.9	1	0.9

These parameters are explained and the tariff system fully described in the previous study already mentioned.

(f) Industrial prices - analysis

The results are given in Tables 27 and 28 in the annex. All non-household tariffs are standardized throughout the country. The small standard consumers I_1 and I_2 have tariffs similar to households and prices including VAT have evolved along the same lines. However, VAT is generally deductible for industrial and commercial consumers, and prices net of VAT show less sharp increases, ranging from 126% to 150% (as compared with 150% to 175% with VAT) between 1980 and 1985.

For the larger consumers (I_3, I_4, I_5) the tariff system is different but the effects are similar. Prices net of VAT have increased by 130% to 170% between 1980 and 1985, the steepest rises affecting the largest consumers.

The largest increases occurred during 1980 and 1981 as a result of the high prices of imported gas. The rate of increase is now reduced and prices in 1985 are 8% to 9% higher than in 1984.

Tariff degression for industrial consumers has decreased. The reduction in unit price between I_1 and I_5 is 27% in 1985 as compared with 40% in 1980.

However, gas prices do not depend only on the volume consumed. Variations in load factor or modulation have a greater effect. It is only when consumption exceeds 41 870 GJ per month (i.e. 502 440 GJ per year) that prices are reduced because of quantity. For example, consumer I_{4-1}, even though he consumes ten times as much as I_{3-2}, pays the same because both have the same load factor. On the other hand, I_{3-2} pays around 10% less than I_{3-1} even though they both consume 41 860 GJ per year, the lower price per unit being due to the improved load factor.

For the consumers charged according to the Distrigaz tariff system, prices also vary according to the use made of the gas by applying an adjustment coefficient P - see section (e). The use made of the gas obviously depends on the type of industry using it and therefore cannot be changed by the consumer to improve prices. However, by opting to have all or part of his gas supply curtailable the consumer can reduce the value of P as well as the value of Cne and thus obtain a lower price. Thus a consumer using gas for specific applications can cut his bill by 1.5% by opting to have 50% of his supply curtailable.

The rates of increase calculated since 1980 show that the price of gas is rising much faster than that of all goods and services (the implied GDP price index rose by 32 points in the same period). In all cases, gas has become much more expensive in real time, i.e. in constant francs. This fact, together with the economic recession, explains the decline in sales of natural gas to industry in the last five or six years.

In addition, the competing products are available at the beginning of 1985 at much the same price net of VAT as gas:

(i) heating gas oil: BFR 400/GJ NCV;

(ii) extra-heavy fuel oil: BFR 300/GJ NCV.

These prices may be compared with the prices net of VAT of natural gas, converted to net calorific value terms:

(i) small-scale commercial and industrial uses (I_1, I_2): BFR 371-405/GJ NCV;

(ii) medium and large-scale industry (I_3, I_4, I_5): BFR 297-339/GJ NCV.

(a) Situation in the gas industry

All natural gas is imported from the Netherlands gas fields under a supply contract with the Belgian company Distrigaz.

A single Luxembourg company (Soteg) imports the gas, transports it and resells it either to the public distribution companies or directly to large industrial customers with an annual consumption of more than 2 million m^3.

Natural gas sales in recent years were broken down as follows:

Users		% of sales				Standard consumers
		1980	1981	1982	1983	
Iron and steel group		74	60	44	36.5	
Other heavy industries		1	2.5	11	13.3	
Public distribution		25	37.5	45	50.2	
of which:	household tariffs	1.0	1.2	1.7	2.0	D_1 D_2
	household tariffs with heating	15.0	22.1	25.5	28.5	D_3 D_{3b}
	collective heating tariffs	7.8	12.1	15.7	17.1	D_4
	small industry and craft trades	1.1	2.0	2.1	2.5	I_3
Total		100	100	100	100	

An agreement between the public distribution companies and the iron and steel industry stipulates that the latter will reduce its consumption of natural gas during winter peak periods by up to 25% of its hourly and daily offtake, allowing the distribution companies to cover their peaks in demand. In return, the iron and steel works can take advantage of reductions in the distribution companies' consumption during other periods of the year. This results in a good load factor for the network, which allows the distribution companies to offer particularly favourable terms of sale to their customers. Moreover, the reduction in consumption by the iron and steel industry has left extra quantities of gas available for public distribution. Since 1980 the network has been adapted for the distribution of high calorific-value gas.

(b) Taxes

VAT on supplies of gas was increased from 5% to 6% on 1 July 1983. It is deductible for commercial and industrial consumers.

(c) Household prices - tariffs

The tariff formulae described in 'Gas Prices 1978-1984', Eurostat, ISBN 92-825-4518-0 have remained unchanged. Only the indices E_1 and E_2, which reflect the cost of living and the purchase price of natural gas respectively, have been updated half-yearly as follows:

	1st half 1982	1st half 1983	1st half 1984	1st half 1985
E_1	2.707665	2.784633	2.835508	3.324424
E_2	6.33699	6.585590	6.69218	8.54007

(d) Household prices - analysis

The results are shown in Table 26 in the annex.

The upward trend of prices resumed in 1984. Prices in the first half of 1985 are 12% higher than those in the first half of 1984 for cooking and water heating and 18% higher for space heating. The main cause was the rise in the price of imported gas at the frontier.

The result has been that gas has become more expensive in real terms, since the inflation rate in the last year was 4.9% (implied GDP price index).

Current prices rose by between 65% and 165% over the entire period 1980-85, according to the amount consumed. The largest customers suffered the sharpest rises and tariff degression has thus diminished. The unit price to a user consuming 1 047 GJ/year (D_1, D_4) is 52% lower than that paid by a user consuming 8.37 GJ/year in 1985, as compared with 70% in 1980.

In all cases, the price of gas has risen by more than the price of all goods and services. Despite the price increase in real terms, household consumption continues to grow, especially in the space heating sector. The severity of the 1984/85 winter also boosted demand despite the price rises.

(e) Industrial prices - tariffs

Since July 1978 the same tariffs have applied as described in the previous study already mentioned. They are linked to the indices E_1 and E_2, whose values are given in paragraph (c) above.

(f) Industrial prices - analysis

The prices are shown in Table 22 in the annex. Prices are given only for standard consumers I_1 to I_{3-2}. The larger industrial consumers are few in number and are not supplied by the public distribution system, but directly by Soteg.

The price of gas for industrial and commercial users evolved in the same way as that for domestic users under the influence of the same indices and for identical reasons.

Prices in the first half of 1985 are about 20% higher than in the first half of 1984.

Between 1980 and 1985, the price net of VAT increased by between 160% and 230%. Because of the cost structure, industrial tariffs are more affected by fluctuations in the cost of importing the natural gas than household tariffs, with the result that the increases in prices to industry are slightly larger than for small users.

For the same reason, the rise in industrial prices increases with the volume consumed. Tariff degression is thus tending to diminish. The standard consumer I_{3-2} now pays 15% less per unit of gas than consumer I_1, whereas the reduction was 33% in 1980. The price level is also affected by regularity of offtake. For the same level of annual consumption (41 860 GJ), an improvement in the load factor from 200 days - 1 600 hours to 250 days - 4 000 hours, reducing the maximum hourly and daily offtake, will result in a price cut of 7%.

In all cases, the price of gas for industrial or commercial uses has increased faster than the prices of all goods and services. In 1984 and 1985 gas continued to become more expensive in real terms.

(a) Situation in the gas industry

The public supply of gas is the responsibility of the State-owned British Gas Corporation, which:

(i) produces natural gas;

(ii) purchases gas extracted from the fields exploited by other companies (BP, Shell, Esso, Amoco, Phillips, Conoco, Mobil, etc.);

(iii) transports and distributies gas to the final consumers in Great Britain.

Tariffs are also the responsibility of the British Gas Corporation, within the framework of financial targets laid down by the government. The territory covered by the British Gas Corporation does not extend to Northern Ireland, which has its own system. This study is therefore concerned with the British Gas Corporation and Great Britain only.

Sales via the public grid are broken down as follows:

Natural Gas

% of sales

Users	1980	1981	1982	1983	1984[1]	Standard consumers
Households	50.7	52.7	52.3	52.7	52.6	
Prepayment tariff	(2.4)	(2.3)	(2.2)	(2.4)	.	D_1
Credit tariff	(48.3)	(50.4)	(50.1)	(50.3)	.	$D_2 \ldots D_4$
Commerce and government	12.4	12.7	13.1	13.4	13.9	I_1 I_2
Industry	36.0	34.1	34.1	33.5	33.0	I_3 I_4 I_5
State-owned power stations	0.8	0.5	0.5	0.4	0.5	
Total	100	100	100	100	100	

[1] Provisional.

The number of gas customers in 1984 can be estimated as follows:

	(1 000)
Households	15 500
of which: with central heating	(9 000)
Commerce and government	500
Industry	80
Total	16 080

Almost all natural gas distributed in Great Britain comes from the North Sea fields. In the past Algeria has supplied a certain amount of liquid gas.

%

	1980	1981	1982	1983	1984
National production	77.4	76.4	78.1	77.3	74.5
Imports from Norway	20.9	22.6	21.7	22.7	25.5
Imports from Algeria	1.7	1.0	0.2	-	-
Total	100	100	100	100	100

(b) Taxes

There are no taxes levied directly on gas sales (VAT rate = 0%).

(c) Household prices - tariffs

There are three gas tariff zones in Great Britain:

(i) the General Zone, represented in this study by London;

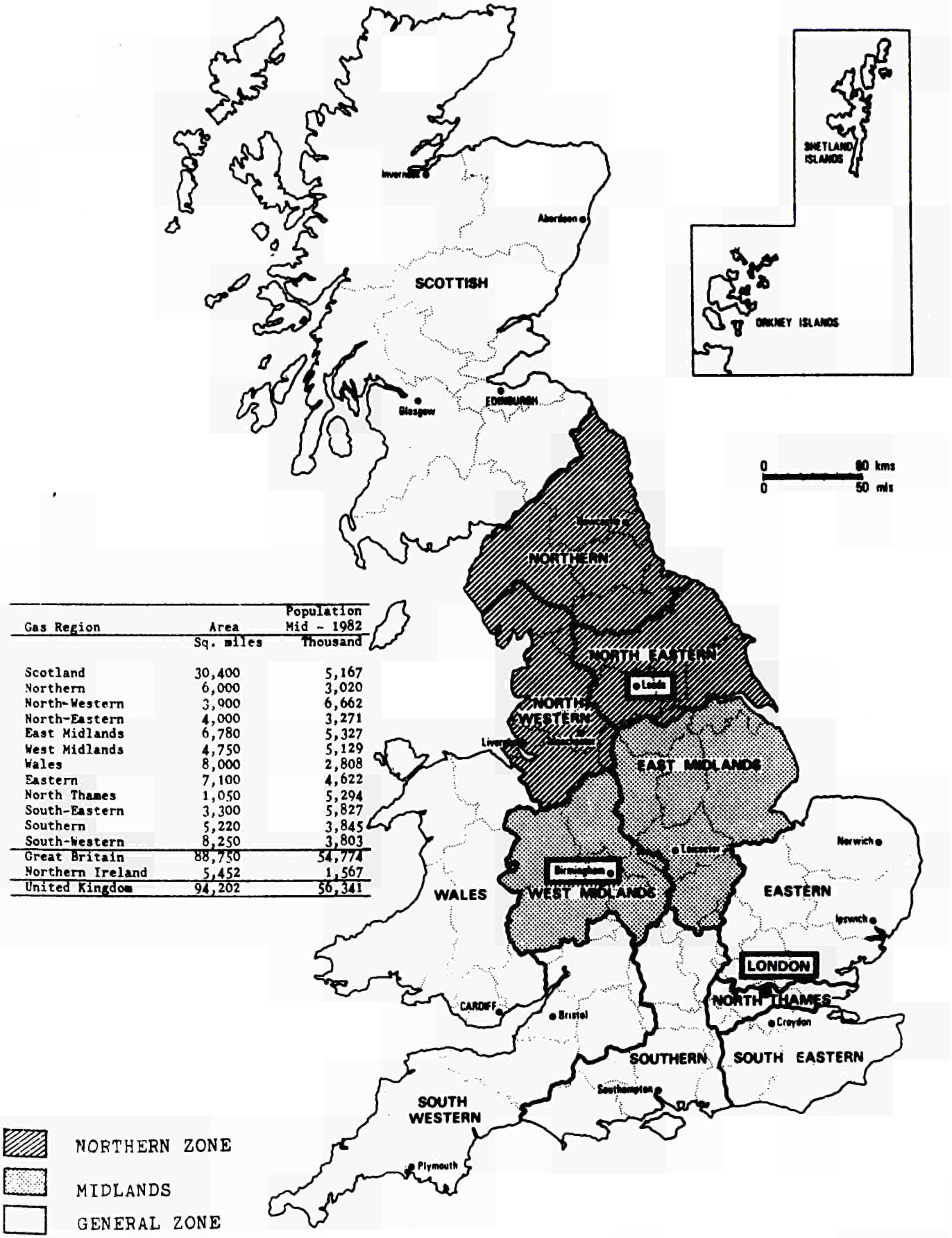
(ii) the Northern Zone, represented by Leeds; and

(iii) the Midlands, represented by Birmingham.

The map shows the boundaries of these three zones.

Each zone offers two tariffs to domestic consumers: the credit tariff and the prepayment tariff.

BOUNDARIES OF TARIFF ZONES



Gas Region	Area Sq. miles	Population Mid - 1982 Thousand
Scotland	30,400	5,167
Northern	6,000	3,020
North-Western	3,900	6,662
North-Eastern	4,000	3,271
East Midlands	6,780	5,327
West Midlands	4,750	5,129
Wales	8,000	2,808
Eastern	7,100	4,622
North Thames	1,050	5,294
South-Eastern	3,300	5,827
Southern	5,220	3,845
South-Western	8,250	3,803
Great Britain	88,750	54,774
Northern Ireland	5,452	1,567
United Kingdom	94,202	56,341

The credit tariff is a simple two-part tariff with a quarterly standing charge and a single commodity rate. The standing charge varies from zone to zone whilst the commodity rate is standardized.

The rates are as follows:

Period	Quarterly standing charge UKL			Commodity rate P/therm
	General zone	Northern zone	Midlands zone	
January 1984-85	9.90	9.20	8.60	35.2
February 1985	9.90	9.20	8.60	37.0

The prepayment tariff was modified in April 1981, and a standing charge was introduced. Coin meters are used for this system, which covers 11% of consumers, but only 4% of the sales to households.

The rates are as follows:

Period	Quarterly standing charge UKL			Commodity rate P/therm			
				First block[1]			Excess
	General zone	Northern zone	Midlands zone	General zone	Northern zone	Midlands zone	
January 1984-85	3.70	3.30	3.00	54.7	53.2	49.8	37.7
February 1985	3.70	3.30	3.00	56.5	54.0	51.6	39.5

[1] 30 therms per quarter (1 therm = 0.0155 gigajoule).

Commodity rate were slightly increased with effect from February 1985. The tables show the January 1985 prices, which are the same as in January 1984.

As from 28 February 1983, British Gas, at the request of the government, introduced a rebate for consumers (both household and non-domestic) on the credit and prepayment tariffs using small quantities of gas. Customers are eligible for a rebate if the standing charge is higher than the commodity rate for gas supplied. The standing charge is reduced to the same level as the commodity rate. This rebate system affects the point at which it is worthwhile for consumers to change tariff.

Thus D_1 was charged on the prepayment tariff until 1983 but in 1984 the credit tariff was applied in London, as the rebate system makes it more advantageous to the consumer at this level.

Collective central heating by gas remains rare in Great Britain, and there is no special tariff. For this reason no prices have been shown for D_4.

The additional standard consumer D_{2b} corresponds to a consumer with a gas cooker, water heater and gas fire. A large number of British consumers are in this category.

(d) Household prices - analysis

Tables 29 and 30 in the annex give the prices recorded. There have been two phases in the development of these prices.

In January 1980 the Secretary of State for Energy announced a new financial target for British Gas over the period 1980-83. As a result, domestic tariffs were to go up each year by 10% more than the rate of inflation.

At the end of this three-year period the financial and commercial targets for the financial years 1984-87 were set out in an agreement with the government. In contrast to the previous phase, domestic tariffs were to remain steady, i.e. increases were to be less than the general rate of inflation.

Average increases in domestic tariffs were as follows:

Phase 1	April 1980	+ 17%
	October 1980	+ 10%
	April 1981	+ 15%
	October 1981	+ 10%
	April 1982	+ 12%
	October 1982	+ 10%
Phase 2	January 1984	+ 4.3%
	February 1985	+ 4.3%.

As a result of these revisions, current prices doubled in the General zone (London) between January 1980 and January 1985.

This does not include the further increase in February 1985, which was in fact very small (0-4.7% depending on consumption level). These different rates of increase are due

to standing charges remaining unchanged. A further consequence is that the smallest consumers are not affected by increases, due to the reduction of the standing charge.

Despite the limiting of prices for small consumers, tariff degression is becoming slightly more pronounced. Between 8.37 and 125.6 GJ/year the unit price falls by 45% in 1985, as compared to 41% in 1980.

Whilst rates of increase vary according to the volume consumed, they have also varied from zone to zone, thus reducing regional differences.

In 1985 the largest regional difference is 6% (for standard consumer D_2). In 1980 it was 21%. The Midlands zone (Birmingham) continues to offer the lowest prices.

During the period 1980-85, the increase in gas prices was much greater than for goods and services as a whole; gas prices doubled, whilst the GDP implicit index went up by 37%. This was a result of the first phase of tariff changes described above. Since 1983 gas has no longer become more expensive in real terms, which means that its competitiveness is improving.

This can be illustrated by comparing a number of prices from the beginning of 1985.

Gas for cooking and hot water costs a third of the price of electricity.

Gas fires (standard consumer D_{2b}) are 30% more economical than paraffin heaters.

For individual central heating (D_3), gas is 35% less expensive than heating gas oil.

Under these circumstances the use of gas in the domestic sector can be expected to increase. The British Gas Corporation expects the number of gas consumers to rise by around 250 000 year.

(e) Industrial prices - tariffs

All consumers with an annual consumption of less than 25 000 therms (2 638 GJ) are charged according to the general credit tariff, the rates of which have been identical to the domestic credit tariff since 1 October 1981 (see household tariffs). This tariff applies to standard consumer I_1.

Standard consumers I_2, I_3, I_4 and I_5 are now always supplied under contracts, the terms of which are not published. Contract prices are influenced mainly by the therms of delivery (firm or interruptible supplies). In the case of firm supplies, consumers are charged the commodity rate of the general credit tariff mentioned above for the first 25 000 therms (2 638 GJ) and the contract price thereafter.

The 1984 and 1985 prices quoted in this study for consumers I_2, I_3 and I_4 represent new and renewed contracts and take account of the tariff commodity rate for the first 25 000 therms, which has been in force since 1984.

Although gas may be supplied on a firm basis at any level of consumption, interruptible contracts are more common for larger industrial consumers (I_5). For this reason the prices indicated for these consumers are for interruptible supplies and apply to their entire consumption.

Geographical location has no effect on gas prices for industry.

(f) Industrial prices - analysis

Table 31 in the annex gives the prices recorded. Analysis is more complex than for the domestic sector.

Small industrial and commercial consumers (I_1), like domestic consumers, are charged according to tariffs.

The other small industrial consumer (I_2) changed from the tariff system to a contract system in 1981. For larger industrial consumers (I_3, I_4, I_5), the prices given up to 1980 corresponded to the new contracts; the prices for later years refer to new and renewed contracts. This means that there is an unavoidable break in the time series between 1980 and 1981. This should be kept in mind when looking at the trends and developments.

An increase in contract prices, parallel to competitive oil product prices, resulted in a discrepancy between tariffs and contracts, in that large industrial customers hat to pay more than small tariff customers. This paradox was removed during 1982.

The price levels given in this study for contract customers (I_3, I_4, I_5) are guidelines only. Actual prices used to vary according to the type of contracts (old, new or renewed). However, by 1982 price differences had been greatly reduced, as there were few old contracts left and prices on renewal were catching up with new contract prices. In 1981 renewal prices were frozen at the request of the government, and in 1982 the dates for price revisions were harmonized. After a slight increase in contract prices at the beginning of 1982 renewal prices were again frozen by the government until the end of 1982. Subsequently, the British Gas Corporation itself extended the price freeze until 1 April 1984.

Since then there has been one increase in contract prices. The lower the level of consumption, the smaller the rate of increase:

Standard consumer	% 1985/84
I_2	3
I_3	6
I_4	7
I_5	8

Prices for standard consumer I_1, (charged according to the domestic tariff) did not change until February 1985.

The following table gives an idea of price differences:

UKL/GJ

Quarter		Average price for large consumers[1]	New and renewed contracts[2]	Selling prices for gas (net of VAT)				
				Tariffs		Contracts		
				I_1	I_2	I_3	I_4	I_5
1980	1	1.51	2.09	2.32	2.28	2.83	2.45	1.89
	2	1.62	2.26					
	3	1.69	2.54					
	4	1.87	2.59					
1981	1	1.98	2.59	2.55	2.47	2.68	2.68	2.32
	2	2.03	2.61					
	3	2.03	2.61					
	4	2.14	2.61					
1982	1	2.20	2.61	2.65	2.78	2.78	2.78	2.42
	2	2.19	2.66					
	3	2.16	2.66					
	4	2.25	2.66					
1983	1	2.28	2.66	3.27	3.06	2.89	2.87	2.51
	2	2.27	2.66					
	3	2.24	2.66					
	4	2.33	2.66					
1984	1	2.41	2.68	3.43	3.17	2.91	2.87	2.51
	2	2.48	2.72					
	3	2.49	2.77					
	4	2.59	2.84					
1985	1		2.00	3.43	3.25	3.08	3.08	2.71

[1] Average prices paid by respondents to a Department of Energy survey covering some 900 establishments.

[2] British Gas Corporation estimate of the average quarterly price for new and renewed contracts, both firm and interruptible supplies.

The Department of Energy selected these 900 consumers in such a way as to cover a large proportion of consumption with a relatively small number of respondents. The sample is therefore biased towards large consumers, who quite often have interruptible supply contracts, including some who had long-term contracts which expired in 1980, but who are still paying below-average prices. The above figures represent the average unit prices of gas invoiced during the period in question and are often based on contracts which had been in force for some time. This explains why the prices are lower than in the other colums. However, the average prices paid by these consumers are rising more quickly than the prices for new and renewed contracts (column 2), which means that the prices paid by long-term customers who had old contracts are catching up.

Despite these uncertainties and the differences in industrial prices, the following patterns can be recognized:

(i) degression is very slight, due to the volume consumed; when consumption increases a hundred times, the unit price reduction is 5%;

(ii) a price reduction of around 10% is given for interruptible supplies;

(iii) since 1980 the prices of new and renewed industrial contracts have kept more or less in line with inflation; in other words the price of gas has remained steady in constant terms;

(iv) in 1985 natural gas is in a strong position vis-à-vis its main competitor, heavy fuel oil, which is sold at UKL 4.50 - 5.0/GJ NCV.

(a) Situation in the gas industry

The use of natural gas from the field off the Cork coast, which has been coming on shore since 1978, was boosted by the commissioning of the gas pipeline to Dublin by the gas board (Bórd Gáis Eireann). After a period in which use was limited to power stations and the chemical industry, supplies have been extended to household, commercial and industrial users, first in the town of Cork and then in the Dublin conurbation. Initially the natural gas was used in Dublin to produce town gas by reforming, and was subsequently distributed in the natural state as a suitable mains system was constructed and the appliances converted. These operations began in May 1984 and 15% of customers were already converted to natural gas by the beginning of 1985. This programme will be completed in 1986 and production of town gas in Dublin will then cease.

The result has been:

(i) a drop in selling prices;

(ii) an expansion of the household, commercial and industrial market.

The prices quoted in this study are those for gas distributed in Dublin:

(i) town gas produced from petroleum products until 1982;

(ii) town gas produced from natural gas in 1983 and 1984;

(iii) natural gas and town gas produced from natural gas (same prices) in 1985.

(b) Taxes

On 1 May 1983 value added tax (VAT), which had not been levied since 1975, was reintroduced for gas sales at a rate of 5% of the price net of tax. This rate was increased to 10% as from 1 March 1985. VAT is deductible for commercial and industrial consumers.

(c) Household prices - tariffs

When natural gas became available, the former tariff system was abolished (see Gas Prices 1978-1984, Eurostat, ISBN 92-825-4518-0).

New tariffs were introduced in December 1982. They still apply unchanged and are as shown below.

Tariff	Two-monthly standing charge	Commodity rate P/therm[1]	Consumption blocks therms per 2 months
Coin meter	-	164.0	-
Basic domestic	-	162.0	0 - 16
		110.0	17 - 40
		70.0	over 40
Reducing rate	IRL 2.72	135.0	0 - 16
		99.0	17 - 40
		63.0	over 40

[1] 1 therm = 0.1055 gigajoule.

The reducing rate tariff has been used because it is the cheapest for the standard consumers considered in this study.

There is no special tariff or market for collective central heating (D_4).

All these tariffs apply equally to natural gas sold as such and to town gas manufactured from natural gas.

(e) Household prices - analysis

As is clear from Table 30 in annex, the tariffs and hence the prices net of tax have not changed since 1983. Throughout this period, the only increases in selling price result from value-added tax, namely, a rise of 5% in 1984 and a further 5% as from 1 March 1985. This exceptional situation is the result of the arrival of natural gas in Dublin, with a new tariff system introduced as from December 1982. This new system had a number of effects:

(i) a divorce from petroleum products;

(ii) the introduction of degressive price formulae depending on the quantities consumed;

(iii) a sharp drop in prices for space heating, in the region of 40% to 45% between 1982 and 1983;

(iv) stabilization of prices since 1983.

Despite the increase in taxation, gas selling prices are currently rising more slowly thant the prices of all goods and services. In other words, the price of gas is diminishing slightly in real terms once allowance is made for inflation. Gas is therefore becoming a possible and even competitive fuel for space heating. At the beginning of 1985 gas was offered at much the same price per gigajoule (NCV) as heating gas oil quite apart from the greater efficiency of gas-fired appliances.

The result ought to be an expansion in gas consumption by households.

(e) Industrial prices - tariffs

The tariff for commercial and industrial uses, like that for household uses, was completely revised in December 1982 following the arrival of natural gas in Dublin. The new tariff has since remained unchanged, and is as shown below.

Annual standing charge	Commodity rate	
	Two-monthly blocks	P/therm[1]
IRL 52	0 - 40 therms	105
	41 - 200 therms	79
	201 - 3 000 therms	60
	3 001 - 10 000 therms	57
	over 10 000 therms	54

[1] 1 therm = 0.1055 gigajoule.

This tariff applies equally to natural gas sold as such and town gas produced from natural gas.

(f) Industrial prices - analysis

As is clear from Table 31 in annex, there was a break in the price trends in 1983 following the arrival of natural gas. At that time prices fell to half their previous level and the prices net of VAT have not changed since.

The 1985 prices are thus lower than those in 1980 in nominal terms. If allowance is made for the fall in the value of money, gas is 40% less expensive today than in 1980 for commercial and industrial uses and is therefore in a strong competitive position. This is illustrated by the fact that at the beginning of 1985 gas was available at a price 5% to 10% lower than heavy and light oils (calculated in terms of gigajoules NCV). This

financial advantage is augmented by the convenience of use and by the greater efficiency of gas-fired appliances.

It is therefore to be anticipated that gas will make inroads into the commercial and industrial markets in the Dublin area.

(a) Situation in the gas industry

During the last few years, the gas industry has changed extensively in anticipation of the arrival of natural gas from the North Sea.

The following is a description of the industry in its present transition period.

One company, Dong (Dansk Olie og Natur Gas), which is fully owned by the State, is responsible for production and both domestic and international transport.

Five regional companies have been formed, whose task is to establish and exploit networks for distributing natural gas to consumers. These companies will receive natural gas from Dong and resell it to consumers.

As long as the country has not been completely converted to natural gas the old municipal companies producing and distributing town gas will continue to exist. Seven firms still make gas from naphta, LPG, coal, or even - since the end of 1984 - from natural gas, whilst ten other companies are solely concerned with the distribution of gas manufactured by these seven.

Since 1982 small quantities of natural gas have been imported from the Federal Republic of Germany to serve South Jutland.

However, exploitation of the Danish North Sea fields started on 1 October 1984, as a result of which:

1. traffic with the Federal Republic of Germany has been reversed, and Denmark is now the exporter;
2. Dong has started to transport natural gas across the country to Copenhagen, with a view to supplying the Danish domestic market.

In the initial stage, the Copenhagen City Corporation (Københavns belysningsvaesen) is using this natural gas to gradually replace naphta and LPG as a raw material for town gas.

The prices in this report are those of the Copenhagen City Corporation, which is the largest supplier in Denmark, with 250 000 consumers out of a total for the country of 300 000, including 10 400 of Denmark's 11 700 industrial and commercial consumers.

The Corporation's gas sales are broken down as follows:

Users	% of quantities	Standard consumers
Cooking and hot water	30	D_1 D_2
Heating	59	D_3 D_4
Industry	11	I_1 I_2

The following is a summary of the total gas available to the country:

(TJ GCV)

	1980	1981	1982	1983	1984
Natural gas					
production	. -	-	-	-	8 196
imports	-	-	17	562	1 266
exports	-	-	-	-	4 899
stocks	-	-	-	- 24	- 703
domestic market	-	-	17	538	3 870[1]
Town Gas					
production (= domestic market)	5 431	5 178	4 563	4 353	4 369

[1] Partly converted into town gas.

As gas and heating price commission has been established, to which all tariffs and price calculations must be submitted in order to be legally valid. This commission can order changes in the terms of a tariff if it considers that prices are not in keeping with costs, cause energy to be used uneconomically, or are contrary to public interest.

This commission consists of a chairman and 13 members appointed by the Minister for Energy. The chairman and seven of the members must be independent of the companies concerned and must represent the interests of the consumers. The other six members represent the commercial and administrative sectors concerned, i.e.:

(i) association of electricity generating stations;

(ii) association of long-distance heating suppliers;

(iii) Dong;

(iv) gas distribution companies;

(v) association of local authorities;

(vi) Copenhagen and Frederiksberg City Corporation.

The Secretariat is provided by the Monopolies Commission.

(b) Taxes

1. Value-added tax (VAT)

The rates on prices net of VAT during the period in question were as follows:

2 October 1978 - 30 June 1980: 20.25%;

since 1 August 1980: 22%.

2. Other taxes

In August 1979 a consumption tax on piped gas with a gross calorific value (GCV) of less than 23 MJ/m^3 (which is the case in this study) was introduced. The original rate was 20 Øre per m^3, but this was reduced to 16 Øre per m^3 as from 30 June 1980. The tax was abolished on 1 January 1984.

It is included in the basis of VAT assessment and is deductible when VAT is deductible.

(c) Household prices - tariffs

The tariff structure introduced in March 1977 is still in force. It comprises a standard tariff and a heating tariff.

The standard tariff consists of three components: meter rental, commodity rate and raw materials surcharge.

1. The rental charge depends on the size of the meter. For small consumers a meter for a rate of up to 5 m^3/h is sufficient, and the annual charge for this during the years convered by the study was as follows:

1978/1982	1983	1984	1985
72 DKR	93 DKR	105 DKR	120 DKR

2. The commodity rate is degressive according to annual consumption blocks:

		Øre/m^3					
		1980	1981	1982	1983	1984	1985
Block 1	12 000 m^3/year	59	69	69	94	106	119
Block 2	108 000 m^3/year	35	41	41	56	66	77
Block 3	600 000 m^3/year	28	32	32	44	53	63
Block 4	1 080 000 m^3/year	25	29	29	41	50	60
Excess		20	24	24	41	50	60

3. The raw materials surcharge is added to the commodity rate per cubic metre and is calculated on the basis of the cost of the products used to manufacture the gas (oil products, in later years natural gas used in Copenhagen).

The rates at the beginning of each year were as follows:

Øre/m^3					
1980	1981	1982	1983	1984	1985
68.6	92.2	104.1	116.6	117.7	91.3

Where gas is used mainly for heating, a heating tariff is applied on request. This consists of four components:

(i) annual meter rental, as in the standard tariff, i.e. DKR 120 for individual heating (less than 5 m^3/h, or DKR 576 for collective heating (25-30 m^3/h);

(ii) annual standing charge, as follows:

DKR		
1978/1983	1984	1985
180	192	204

(iii) single commodity rate per m^3 consumed:

Øre/m^3					
1980	1981	1982	1983	1984	1985
29.0	34.0	34.0	48.0	57.0	67.0

(iv) raw material surcharge as in the standard tariff.

Despite the change in the raw materials used in Copenhagen from the end of 1984, the gas distributed has retained the same calorific value, i.e. 16.745 MJ (GCV) per m^3.

(d) Household prices - analysis

The results are given in Table 23 in the annex. Between 1980 and 1985 current prices increased by 46% for cooking and hot water and by 36% for heating. However, there were two phases in this development:

(i) a steady increase up to 1983;

(ii) a subsequent fall.

The price rises were caused mainly by increases in the prices of oil products used to manufacture gas.

The fall in prices had two causes: the abolition of the consumption tax as from 1 January 1984 and the use of natural gas a raw material as from the end of 1984.

The resulting reductions in the tax-inclusive prices between 1983 and 1985 amounted to:

(i) 6% for the lower consumption levels;

(ii) 12% for heating.

Thus the reductions were to the benefit of larger domestic consumers and accentuated tariff degression. The unit price reduction between a low consumption level (D_1) and the collective heating level (D_4) in 1985 is 32% as compared to 27% in 1980.

The recent reductions mean that if gas prices are calculated in constant terms (the GDP implicit price index rose by 44% during the same period), they are at approximately the same level as in 1980.

However, gas still remains around 25-30% more expensive than heating gas oil, which at the beginning of 1985 cost DKR 102.5/gigajoule NCV, inclusive of all taxes.

Under these circumstances there is little incentive to use gas for heating. Moreover, average consumption per consumer remains low (e.g. 8.40 GJ per standard consumer (D_1).

(e) Industrial prices - tariffs

The tariff for industrial consumption, which in fact applies to only relatively modest levels of consumption, is calculated on the basis of the tariff for household consumers. It consists of three components:

1. A meter rental charge similar to that in the standard household tariff; 1985 charges are as follows:

Meter size	DKR/year	Standard consumers
up to 5 m^3/h	120	
5 - 10 m^3/h	264	I_1
15 - 25 m^3/h	450	
25 - 50 m^3/h	576	I_2
50 - 100 m^3/h	768	
> 100 m^3/h	1 080	

2. A degressive commodity rate according to consumption blocks, identical to the standard household tariff;

3. A raw materials surcharge, which is added to the commodity rate per m^3 and is the same as shown under section (c) above.

(f) Industrial prices - analysis

The results are given in Table 24 in the annex. Prices are given for standard consumers I_1 and I_2 only, as larger industrial customers are rare.

1984 was characterized by break in price development. First of all the abolition of the consumption tax reduced tax-inclusive sales prices slightly, as from 1 January 1984.

Secondly, the arrival of natural gas and its use as a raw material reduced production costs and tariffs during the course of the year.

As a result, the prices recorded at the beginning of 1985 reveal a clear fall:

(i) - 7% for small commercial consumers (I_1);

(ii) - 9% for larger consumers (I_2).

A study of price trends throughout the period 1980-85 reveals diverging developments, depending on the price level considered, as a result of the double tax system, i.e. increasing weight of VAT and severe decline in weight of the consumption tax.

The following is a summary of current price increases:

% 1985/80

Standard consumer	Price inclusive of all taxes	Price net of VAT	Price net of tax
I_1	+ 41.5	+ 39.5	+ 63.5
I_2	+ 36.5	+ 34.5	+ 61.0

Three conslusions can be drawn:

(i) the tax burden on gas has gone down by half since 1980;

(ii) price changes vary according to the volume consumed, resulting in greater tariff degression (in 1985 a tenfold increase in consumption gives a 14% unit price reduction, compared to 10% in 1980);

(iii) in constant terms, gas is cheaper now than in 1980 (inflation during the period 1980-85 was 44%).

The latter conslusion prompts an examination of the current position of gas with regard to competitive forms of energy.

Prices net of VAT per gigajoule NCV at the beginning of 1985 can be estimated as follows:

(i) heating gas oil: DKR 86/GJ NCV;

(ii) light fuel oil containing 1% sulphur: DKR 73/GJ NCV.

After a long period during which gas was distinctly more expensive than liquid fuels, gas prices are now close to those of oil products.

VI. COMMUNITY COMPARISON AND CONCLUSIONS

The locations chosen for the international comparison are either capital cities or major economic centres, i.e.:

Düsseldorf	Rotterdam	London
Paris	Brussels	Dublin
Milan	Luxembourg	Copenhagen.

The findings are presented in Tables 33 to 36 in the annex using two units of value, current ECU and deflated PPS (see Chapter III). Table 32 gives the rates of conversion between ECU, PPS and national currencies. If also shows the deflator used (GDP implicit price index). The household prices are inclusive of all taxes, whilst industrial prices are net of VAT.

The difficulties involved in international price level comparisons mean that any interpretations and conclusions drawn from these tables must be regarded with caution. Nevertheless, the results permit some comments and analysis, based in particular on prices in deflated PPS, the only unit allowing spatial and temporal comparisons.

(a) The increase in current prices is more or less general

Between 1980 and 1985 selling prices in current terms have increased in almost every case. This is illustrated by Tables 34 and 36 in the annex, which give prices in current ECU.

The causes are:

(i) soaring oil prices, to which gas prices are directly indexed or indirectly linked;

(ii) inflation, which causes wages and other costs to rise;

(iii) increased taxation (except in Denmark).

One exception is the level of prices (net of VAT) for industry in Dublin, following the arrival of natural gas.

Monetary inflation over a period of five years is such that it is necessary to get round its effect by calculating 'deflated' prices.

(b) In most cases prices are also increasing in content terms

A study of prices after allowing for monetary inflation (deflated PPS on the basis of 1980) reveals the following trends:

Development of actual prices for household consumers

% 1985/80

Standard consumers	Düssel-dorf	Paris	Milan	Rotter-dam	Brussels	Luxem-bourg	London	Dublin	Copen-hagen
D_1	+ 30	+ 16	+ 26	+ 38	+ 27	+ 17	+ 62	+ 12	+ 2
D_2	+ 28	+ 20	+ 22	+ 47	+ 31	+ 16	+ 46	- 4	+ 1
D_3	+ 36	+ 27	+ 15	+ 59	+ 76	+ 86	+ 49	- 27	- 6
D_{3b}	+ 43	+ 33	+ 13	+ 60	+ 81	+ 84	+ 50	- 32	- 6
D_4	+ 54	+ 44	+ 14	+ 61	+ 102	+ 83	/	/	- 5

Development of actual prices for industrial consumers

% 1985/80

Standard consumers	Düssel-dorf	Paris	Milan	Rotter-dam	Brussels	Luxem-bourg	London	Dublin	Copen-hagen
I_1	+ 29	+ 33	+ 24	+ 60	+ 71	+ 82	+ 8	- 41	- 3
I_2	+ 35	+ 33	+ 20	+ 61	+ 88	+ 112	+ 4	- 43	- 7
I_{3-1}	+ 37	+ 40	+ 56	+ 66	+ 76	+ 129	.	/	/
I_{3-2}	+ 38	+ 41	+ 53	+ 66	+ 93	+ 133	.	/	/
I_{4-1}	+ 38	+ 45	+ 48	+ 62	+ 93	/	- 8	/	/
I_{4-2}	+ 39	+ 46	+ 45	+ 62	+ 100	/	- 8	/	/
I_5		+ 46	+ 41	+ 62	+ 104	/	+ 5	/	/

The real prices reductions recorded in Ireland and Denmark are due to the arrival of natural gas.

The United Kingdom figures for industry must be regarded with caution, owing to breaks in the time series. However, it is a fact that the price of gas in real terms has remained steady since 1980.

(c) Tariff prices vary

The results on the study reveal considerable differences in tariff policies:

(i) the smallest domestic consumers have been protected against increases, often for social reasons (e.g. in France, Netherlands, Belgium, Luxembourg);

(ii) in the case of Düsseldorf, France, Belgium, Luxembourg and Rotterdam (for household consumption) increases have been greater at the higher levels of consumption (the opposite of tariff degression);

(iii) in the Netherlands and the United Kingdom increases for industry have not varied according to the volume consumed;

(iv) in Italy, Ireland and Denmark increases have been lower at the higher levels of consumption, thus accentuating tariff degression.

Generally speaking, the latter tariff policy indicates a desire to increase gas sales. This is certainly the case in the three countries mentioned, which have extensive resources of natural gas to supply to the domestic market.

(d) Price degression varies considerably

The above comments prompt a study of tariff degression, i.e. the reduction in the unit price when offtake increases. The price reduction for household uses in 1985, between consumption levels of 8 and 1 000 GJ per year, is as follows:

FR of Germany	60%
Luxembourg	52%
Dublin	52%
France	50%
United Kingdom	45%
Belgium	43%
Copenhagen	32%
Rotterdam	30%
Italy	30% (natural gas)
Italy	16-20% (town gas).

For industry the calculation is slightly more complicated, as in addition to the volume consumed the load factor also plays a part, and often several tariff systems exist side

by side. Nevertheless, when consumption is multiplied by a thousand or more the price reduction in 1985 is as follows:

France	30%
Belgium	27%
FR of Germany	15-30%
Italy	20-28%
United Kingdom	21%
Netherlands	17%.

Tariff degression is less apparent in the countries where natural gas is cheap and plentiful.

This is a further aspect of tariff system diversity.

In this connection, the largest industrial standard consumer (I_5), with an annual consumption of 4 186 000 GJ (1 163 000 000 kWh) is on the asymptote of the degression curve, giving an idea of the marginal price.

(e) Prices vary according to resources and transport distances

Although trends are never quite the same in any two countries, there is a general pattern: the highest prices are for town gas (Dublin, Copenhagen, Italy) whilst the lowest prices apply to natural gas in the Netherlands and the United Kingdom. The proximity of gas fields brings a definite advantage. The one exception is Luxembourg, where prices are even lower than in Belgium, despite a longer transport distance. This is explained by the tax system and the terms of supply contracts.

(f) International price differences have become smaller, but are still considerable

Prices within the Community for small household, commercial and industrial consumers currently vary by up to 100%. Differences for larger industrial consumers are smaller (up to 50%).

In 1980 price differences of between 300% and 400% were not uncommon (see Tables 33 and 35).

This reduction of price differences is mainly a result of the arrival of natural gas in Ireland and Denmark, which has enabled prices there to be reduced towards the level in the rest of the Community.

Price differences remain more significant for small consumers. Distribution costs, which can vary considerably according to local conditions, are an important factor here.

(g) Geographical price differences are also diminishing within countries

With the exception of the Federal Republic of Germany, prices within the same country are becoming more and more standardized. This is due to the introduction of uniform tariffs, which remove regional differences, and to the link-up of transport networks.

Major regional differences occur only when two types of gas are distributed, as in Italy.

(h) Median prices illustrate the general trend within the Community

It is difficult to calculate a representative average gas price in the Community. The method which is the least affected by excessively high or low prices, exceptions and sudden changes is probably still the median price. In the absence of a better solution, median prices enable trends to be shown, as follows:

Standard consumers	1980	1981	1982	1983	1984	1985	% 1985/80
	Household consumption - Community median prices in deflated PPS/GJ						
D_1	10.61	11.56	12.72	12.39	12.39	13.06	+ 23
D_2	9.40	10.03	11.28	11.31	11.19	11.63	+ 24
D_3	5.46	6.81	7.82	7.66	7.67	8.25	+ 51
D_{3b}	4.87	6.19	7.52	7.51	7.14	7.72	+ 59
D_4	4.09	4.99	6.55	6.50	6.07	6.76	+ 65
	Industrial consumption - Community median prices in deflated PPS/GJ						
I_1	4.38	4.69	6.47	7.00	6.44	6.30	+ 44
I_2	3.99	4.07	5.73	5.64	5.49	5.83	+ 46
I_{3-1}	3.27	3.81	5.15	5.15	4.87	5.03	+ 54
I_{3-2}	3.18	3.49	4.61	4.80	4.54	4.85	+ 53
I_{4-1}	3.20	3.72	4.45	4.50	4.49	4.52	+ 41
I_{4-2}	3.09	3.59	4.36	4.41	4.40	4.43	+ 43
I_5	.	.	.	.	4.19	4.37	.

The overall price barometer rose until 1982, went down in 1984 and has started to go up again in 1985.

(i) Taxes affect mainly household consumers

As a result of extensive differences between tax systems, the indirect tax rates on gas sales to household consumers vary widely among the Member States.

The tax burden on gas is as follows:

	% or price net of VAT	
	1980	1985
Denmark	37-45	22
Netherlands	18	19
France	17.6	18.6
Belgium	6	17
Italy-Genoa[1]	25-32	14-17
Italy-Milan[2]	16-18	13-14
FR of Germany	13	14
Luxembourg	5	6
Ireland	0	5-10
United Kingdom	0	0

[1] Natural gas.
[2] Town gas.

Whilst the general trend is towards increased taxation, there are two exceptions: Denmark, where the consumption tax has been abolished, and Italy, as a result of the degressive nature of the standard consumption tax.

With the exception of deductible VAT, there are no indirect taxes on non-domestic consumption in 1985.

The pollution tax in the Netherlands is very small and does not effect prices.

(j) Sales to small consumers are becoming more and more important

Small consumers account for a growing proportion of gas sales, as a result of:

(i) stagnation or recession affecting heavy industries;

(ii) development of the tertiary sector;

(iii) increase in the number of household consumers;

(iv) expansion of central heating;

(v) increase in the level of comfort.

These changes in consumer structure have:

(i) increased seasonal consumption fluctuation, with peaks in winter;

(ii) accentuated the influence of weather conditions, a very uncertain factor.

As a result, the transport and distribution load factor is less satisfactory, flexibility of supply and stock management problems arise, and sometimes there are even difficulties in coping with unexpected peaks.

All these factors also have repercussions on tariffs and consequently on prices. As a result, tariffs are tending to become more complicated, due to:

(i) the introduction of seasonal parameters, which mean that prices vary according to consumption periods;

(ii) the implementation of tariff provisions covering the curtailment or interruption of supplies during peak periods;

(iii) the introduction of 'social' tariffs designed to protect the smallest consumers, who do not have the flexibility to divert their consumption away from the peak periods.

(k) The period 1984-85 represents a turning-point

This period has been characterized by several changes in natural gas supply at international level:

(i) start of deliveries from Algeria to Italy and Belgium in accordance with contracts signed earlier;

(ii) renegotiation or renewal of contracts with the major suppliers.

In this connection, two points should be noted:

(i) more countries are now supplying natural gas;

(ii) the terms of international contracts have changed in that they now allow more flexibility for deliveries and enable prices to be more easily adapted in accordance with competition on the markets.

This should in future result in more favourable consumer prices on the domestic market.

VII. STATISTICAL ANNEX

NOTE: In the Statistical Annex,
the Continental practice of using a comma for the decimal point is adopted.

TABLES

GASPREISE FUER HAUSHALTE
GAS PRICES FOR HOUSEHOLDS

1

PRIX DU GAZ POUR USAGES DOMESTIQUES
PREZZI DEL GAS PER USI DOMESTICI

B.R. DEUTSCHLAND

DM/GJ

	Januar Janvier / January Gennaio	Hamburg *			Hannover *		
		Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. all taxes Prix hors taxes Prezzi imp. escluse	Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. taxes Prix hors taxes Prezzi imp. escluse
D_1	1980	30,93	27,37	27,37 :	24,87	22,01	22,01
	1981	.	.	.	.	.	.
8,37 GJ	1982	.	.	.	.	.	.
	1983	37,53	32,92	32,92	.	.	.
	1984	37,53	32,92	32,92	41,20	36,14	36,14
	1985	39,97	35,06	35,06	41,85	36,71	36,71
D_2	1980	24,35	21,55	21,55	22,85	20,22	20,22
	1981	.	.	.	.	.	.
16,74 GJ	1982	.	.	.	.	.	.
	1983	30,02	26,33	26,33	.	.	.
	1984	30,02	26,33	26,33	35,48	31,12	31,12
	1985	31,95	28,03	28,03	36,14	31,70	31,70
D_3	1980	15,71	13,90	13,90	11,48	10,16	10,16
	1981	.	.	.	.	.	.
83,7 GJ	1982	.	.	.	.	.	.
	1983	.	.	.	.	.	.
	1984	19,56	17,16	17,16	18,59	16,31	16,31
	1985	20,82	18,26	18,26	20,37	17,87	17,87
D_{3b}	1980	15,05	13,32	13,32	10,87	9,62	9,62
	1981	.	.	.	.	.	.
125,6 GJ	1982	.	.	.	.	.	.
	1983	.	.	.	.	.	.
	1984	18,73	16,43	16,43	17,73	15,55	15,55
	1985	19,94	17,49	17,49	19,47	17,08	17,08
D_4	1980	11,28	9,98	9,98	10,45	9,25	9,25
	1981	.	.	.	.	.	.
1 047 GJ	1982	.	.	.	.	.	.
	1983	.	.	.	.	.	.
	1984	16,14	14,16	14,16	15,31	13,43	13,43
	1985	16,27	14,27	14,27	18,83	16,52	16,52

* Naturgas
Natural gas

* Gaz naturel
Gas naturale

B.R. DEUTSCHLAND

DM/GJ

Januar January Janvier Gennaio		Düsseldorf *			Frankfurt/M *		
		Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. all taxes Prix hors taxes Prezzi imp. escluse	Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. taxes Prix hors taxes Prezzi imp. escluse
D_1	1980	29,69	26,27	26,27	35,19	31,14	31,14
	1981	35,97	31,83	31,83	.	.	.
8,37 GJ	1982	46,76	41,38	41,38	.	.	.
	1983	.	.	.	.	.	.
	1984	45,24	39,68	39,68	42,40	37,19	37,19
	1985	45,24	39,68	39,68	42,40	37,19	37,19
D_2	1980	22,53	19,94	19,94	24,66	21,82	21,82
	1981	27,33	24,19	24,19	.	.	.
16,74 GJ	1982	35,47	31,39	31,39	.	.	.
	1983	.	.	.	.	.	.
	1984	33,85	29,69	29,69	31,07	27,25	27,25
	1985	33,85	29,69	29,69	32,15	28,20	28,20
D_3	1980	14,41	12,75	12,75	14,67	12,98	12,98
	1981	18,71	16,56	16,56	.	.	.
83,7 GJ	1982	23,32	20,64	20,64	.	.	.
	1983	.	.	.	.	.	.
	1984	21,60	18,95	18,95	19,79	17,36	17,36
	1985	22,88	20,07	20,07	19,79	17,36	17,36
D_{3b}	1980	12,85	11,37	11,37	12,75	11,28	11,28
	1981	17,14	15,17	15,17	.	.	.
125,6 GJ	1982	21,97	19,44	19,44	.	.	.
	1983	.	.	.	.	.	.
	1984	20,24	17,75	17,75	18,21	15,97	15,97
	1985	21,52	18,88	18,88	18,21	15,97	15,97
D_4	1980	10,79	9,55	9,55	10,99	9,73	9,73
	1981	15,83	14,01	14,01	.	.	.
1 047 GJ	1982	19,41	17,18	17,18	.	.	.
	1983	.	.	.	.	.	.
	1984	18,14	15,91	15,91	16,67	14,62	14,62
	1985	19,41	17,03	17,03	17,93	15,73	15,73

* Naturgas
Natural gas

* Gaz naturel
Gas naturale

GASPREISE FUER HAUSHALTE
GAS PRICES FOR HOUSEHOLDS

3

PRIX DU GAZ POUR USAGES DOMESTIQUES
PREZZI DEL GAS PER USI DOMESTICI

B.R. DEUTSCHLAND

DM/GJ

Januar Janvier / January Gennaio		Stuttgart *			München *		
		Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. all taxes Prix hors taxes Prezzi imp. escluse	Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. taxes Prix hors taxes Prezzi imp. escluse
D_1	1980	31,70	28,05	28,05	23,22	20,55	20,55
	1981	.	.	.	.	.	.
8,37 GJ	1982	.	.	.	.	.	.
	1983	.	.	.	.	.	.
	1984	43,56	38,21	38,21	37,98	33,32	33,32
	1985	46,19	40,52	40,52	37,98	33,32	33,32
D_2	1980	25,88	22,90	22,90	19,18	16,97	16,97
	1981	.	.	.	.	.	.
16,74 GJ	1982	.	.	.	.	.	.
	1983	.	.	.	.	.	.
	1984	36,53	32,04	32,04	29,81	26,15	26,15
	1985	39,48	34,63	34,63	29,81	26,15	26,15
D_3	1980	15,00	13,27	13,27	12,88	11,40	11,40
	1981	.	.	.	.	.	.
83,7 GJ	1982	.	.	.	.	.	.
	1983	.	.	.	.	.	.
	1984	23,47	20,59	20,59	22,02	19,32	19,32
	1985	25,92	22,81	22,81	22,02	19,32	19,32
D_{3b}	1980	13,68	12,11	12,11	12,02	10,64	10,64
	1981	.	.	.	.	.	.
125,6 GJ	1982	.	.	.	.	.	.
	1983	.	.	.	.	.	.
	1984	21,91	19,22	19,22	20,77	18,22	18,22
	1985	24,35	21,36	21,36	20,77	18,22	18,22
D_4	1980	11,75	10,40	10,40	11,21	9,92	9,92
	1981	.	.	.	.	.	.
1 047 GJ	1982	.	.	.	.	.	.
	1983	.	.	.	.	.	.
	1984	18,94	16,61	16,61	16,39	14,38	14,38
	1985	20,99	18,41	18,41	18,96	16,63	16,63

* Naturgas
Natural gas

* Gaz naturel
Gas naturale

GASPREISE FUER HAUSHALTE
GAS PRICES FOR HOUSEHOLDS

4

PRIX DU GAZ POUR USAGES DOMESTIQUES
PREZZI DEL GAS PER USI DOMESTICI

B.R. DEUTSCHLAND

DM/GJ

Januar January Janvier Gennaio		Dortmund *			Weser–Ems *		
		Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. all taxes Prix hors taxes Prezzi imp. escluse	Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. taxes Prix hors taxes Prezzi imp. escluse
D_1	1980	.	.	.	.	.	.
	1981	.	.	.	.	.	.
8,37 GJ	1982	.	.	.	.	.	.
	1983	.	.	.	.	.	.
	1984	43,11	37,81	37,81	.	.	.
	1985	46,01	40,36	40,36	34,68	30,42	30,42
D_2	1980	.	.	.	.	.	.
	1981	.	.	.	.	.	.
16,74 GJ	1982	.	.	.	.	.	.
	1983	.	.	.	.	.	.
	1984	32,47	28,47	28,47	.	.	.
	1985	34,56	30,32	30,32	27,14	23,81	23,81
D_3	1980	.	.	.	.	.	.
	1981	.	.	.	.	.	.
83,7 GJ	1982	.	.	.	.	.	.
	1983	.	.	.	.	.	.
	1984	19,75	17,33	17,33	.	.	.
	1985	21,28	18,67	18,67	18,63	16,34	16,34
D_{3b}	1980	.	.	.	.	.	.
	1981	.	.	.	.	.	.
125,6 GJ	1982	.	.	.	.	.	.
	1983	.	.	.	.	.	.
	1984	18,33	16,08	16,08	.	.	.
	1985	19,78	17,35	17,35	17,69	15,52	15,52
D_4	1980	.	.	.	.	.	.
	1981	.	.	.	.	.	.
1 047 GJ	1982	.	.	.	.	.	.
	1983	.	.	.	.	.	.
	1984	17,50	15,33	15,33	.	.	.
	1985	18,87	16,55	16,55	16,05	14,08	14,08

* Naturgas
Natural gas

* Gaz naturel
Gas naturale

B.R. DEUTSCHLAND

DM/GJ

Januar January Janvier Gennaio		Hamburg *			Hannover *		
		Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. all taxes Prix hors taxes Prezzi imp. escluse	Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. taxes Prix hors taxes Prezzi imp. escluse
I_1	1980	18,29	16,19	16,19	10,86	9,61	9,61
	1981	.	.	.	.	.	.
418,6 GJ	1982	.	.	.	.	.	.
	1983	.	.	.	.	.	.
	1984	16,35	14,34	14,34	18,65	16,36	16,36
	1985	17,46	15,32	15,32	20,35	17,85	17,85
I_2	1980	10,87	9,62	9,62	8,97	7,94	7,94
	1981	.	.	.	.	.	.
4 186 GJ	1982	.	.	.	.	.	.
200 Tage/days/jours/giorni	1983	.	.	.	.	.	.
	1984	16,15	14,17	14,17	16,14	14,16	14,16
	1985	17,26	15,14	15,14	17,68	15,51	15,51
I_{3-1}	1980	10,31	9,12	9,12	8,61	7,62	7,62
	1981	.	.	.	.	.	.
41 860 GJ	1982	.	.	.	.	.	.
250 Tage/days/jours/giorni	1983	.	.	.	.	.	.
1 600 h	1984	16,06	14,09	14,09	15,16	13,30	13,30
	1985	17,13	15,03	15,03	16,60	14,56	14,56
I_{3-2}	1980	9,11	8,06	8,06	8,60	7,61	7,61
	1981	.	.	.	.	.	.
41 860 GJ	1982	.	.	.	.	.	.
250 Tage/days/ jours/giorni	1983	.	.	.	.	.	.
4 000 h	1984	15,01	13,17	13,17	14,59	12,80	12,80
	1985	15,96	14,00	14,00	15,98	14,02	14,02
I_{4-1}	1980	8,64	7,65	7,65	7,98	7,06	7,06
	1981	.	.	.	.	.	.
418 600 GJ	1982	.	.	.	.	.	.
250 Tage/days/jours/giorni	1983	.	.	.	.	.	.
4 000 h	1984	13,81	12,11	12,11	13,70	12,02	12,02
	1985	15,55	13,64	13,64	.	.	.
I_{4-2}	1980	8,42	7,45	7,45			
	1981	.	.	.			
418 600 GJ	1982	.	.	.			
330 Tage/days/jours/giorni	1983	.	.	.			
8 000 h	1984	13,43	11,78	11,78			
	1985	15,14	13,28	13,28			
I_5	1980						
	1981						
4 186 000 GJ	1982						
330 Tage/days/jours/giorni	1983						
8 000 h	1984						
	1985						

* Naturgas
Natural gas

* Gaz naturel
Gas naturale

B.R. DEUTSCHLAND

DM/GJ

Januar January Janvier Gennaio		Düsseldorf *			Frankfurt/M *		
		Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. all taxes Prix hors taxes Prezzi imp. escluse	Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. taxes Prix hors taxes Prezzi imp. escluse
I_1	1980	14,58	12,90	12,90	11,83	10,47	10,47
	1981	19,36	17,13	17,13	.	.	.
418,6 GJ	1982	24,45	21,64	21,64	.	.	.
	1983	.	.	.	.	.	.
	1984	22,20	19,47	19,47	17,73	15,55	15,55
	1985	22,20	19,47	19,47	17,73	15,55	15,55
I_2	1980	11,91	10,54	10,54	11,46	10,14	10,14
	1981	14,50	12,83	12,83	.	.	.
4 186 GJ	1982	19,92	17,73	17,63	.	.	.
200 Tage/days/jours/giorni	1983	.	.	.	.	.	.
	1984	18,95	16,62	16,62	15,75	13,82	13,82
	1985	18,95	16,62	16,62	17,03	14,94	14,94
I_{3-1}	1980	10,96	9,70	9,70	10,57	9,35	9,35
	1981	13,42	11,88	11,88	.	.	.
41 860 GJ	1982	18,66	16,51	16,51	.	.	.
250 Tage/days/jours/giorni	1983	.	.	.	.	.	.
1 600 h	1984	17,73	15,55	15,55	15,05	13,20	13,20
	1985	17,73	15,55	15,55	15,70	13,77	13,77
I_{3-2}	1980	10,51	9,30	9,30	10,25	9,07	9,07
	1981	13,00	11,50	11,50	.	.	.
41 860 GJ	1982	17,99	15,92	15,92	.	.	.
250 Tage/days/ jours/giorni	1983	.	.	.	.	.	.
4 000 h	1984	17,09	14,99	14,99	14,12	12,39	12,39
	1985	17,09	14,99	14,99	15,32	13,44	13,44
I_{4-1}	1980	10,43	9,23	9,23	10,20	9,03	9,03
	1981	12,90	11,42	11,42	.	.	.
418 600 GJ	1982	17,90	15,84	15,84	.	.	.
250 Tage/days/jours/giorni	1983	.	.	.	.	.	.
4 000 h	1984	17,00	14,91	14,91	14,12	12,39	12,39
	1985	17,00	14,91	14,91	15,28	13,40	13,40
I_{4-2}	1980	10,00	8,85	8,85	9,90	8,76	8,76
	1981	12,49	11,05	11,05	.	.	.
418 600 GJ	1982	17,26	15,27	15,27	.	.	.
330 Tage/days/jours/giorni	1983	.	.	.	.	.	.
8 000 h	1984	16,37	14,36	14,36	13,78	12,09	12,09
	1985	16,37	14,36	14,36	14,87	13,04	13,04
I_5	1980	.	.	.	.	.	.
	1981	.	.	.	.	.	.
4 186 000 GJ	1982	.	.	.	.	.	.
330 Tage/days/jours/giorni	1983	.	.	.	.	.	.
8 000 h	1984	16,37	14,36	14,36	13,78	12,09	12,09
	1985	16,37	14,36	14,36	14,85	13,03	13,03

* Naturgas
Natural gas

* Gaz naturel
Gas naturale

B.R. DEUTSCHLAND

DM/GJ

Januar January Janvier Gennaio		Stuttgart *			München *		
		Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. all taxes Prix hors taxes Prezzi imp. escluse	Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. taxes Prix hors taxes Prezzi imp. escluse
I_1	1980	11,83	10,47	10,47	11,35	10,04	10,04
	1981	.	.	.	.	.	.
418,6 GJ	1982	.	.	.	.	.	.
	1983	.	.	.	.	.	.
	1984	.	.	.	22,94	20,12	20,12
	1985	.	.	.	22,94	20,12	20,12
I_2	1980	12,92	11,43	11,43	12,25	10,84	10,84
	1981	.	.	.	.	.	.
4 186 GJ	1982	.	.	.	.	.	.
200 Tage/days/jours/giorni	1983	.	.	.	.	.	.
	1984	19,67	17,25	17,25	16,40	14,39	14,39
	1985	21,41	18,78	18,78	16,77	14,71	14,71
I_{3-1}	1980	12,84	11,36	11,36	12,25	10,84	10,84
	1981	.	.	.	.	.	.
41 860 GJ	1982	.	.	.	.	.	.
250 Tage/days/jours/giorni	1983	.	.	.	.	.	.
1 600 h	1984	.	.	.	14,89	13,06	13,06
	1985	21,32	18,70	18,70	16,06	14,09	14,09
I_{3-2}	1980	10,81	9,57	9,57	9,15	8,10	8,10
	1981	.	.	.	.	.	.
41 860 GJ	1982	.	.	.	.	.	.
250 Tage/days/ jours/giorni	1983	.	.	.	.	.	.
4 000 h	1984	10,06	14,61	14,61	14,89	13,06	13,06
	1985	18,37	16,11	16,11	16,06	14,09	14,09
I_{4-1}	1980	10,80	9,56	9,56	8,32	7,36	7,36
	1981	.	.	.	.	.	.
418 600 GJ	1982	.	.	.	.	.	.
250 Tage/days/jours/giorni	1983	.	.	.	.	.	.
4 000 h	1984	16,63	14,59	14,59	14,89	13,06	13,06
	1985	18,34	16,09	16,09	16,06	14,09	14,09
I_{4-2}	1980	10,14	8,97	8,97	8,32	7,36	7,36
	1981	.	.	.	.	.	.
418 600 GJ	1982	.	.	.	.	.	.
330 Tage/days/jours/giorni	1983	.	.	.	.	.	.
8 000 h	1984	15,62	13,70	13,70	14,89	13,06	13,06
	1985	17,36	15,23	15,23	16,06	14,09	14,09
I_5	1980	.	.	.	.	.	.
	1981	.	.	.	.	.	.
4 186 000 GJ	1982	.	.	.	.	.	.
330 Tage/days/jours/giorni	1983	.	.	.	.	.	.
8 000 h	1984	15,62	13,70	13,70	.	.	.
	1985	17,36	15,23	15,23	16,06	14,09	14,09

* Naturgas
Natural gas

* Gaz naturel
Gas naturale

GASPREISE FUER DIE INDUSTRIE
GAS PRICES FOR INDUSTRY

8

PRIX DU GAZ POUR USAGES INDUSTRIELS
PREZZI DEL GAS PER USI INDUSTRIALI

B.R. DEUTSCHLAND

DM/GJ

Januar January Janvier Gennaio		Dortmund *			Weser–Ems *		
		Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. all taxes Prix hors taxes Prezzi imp. escluse	Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. taxes Prix hors taxes Prezzi imp. escluse
I_1	1980	.	.	.	.	.	.
	1981	.	.	.	.	.	.
418,6 GJ	1982	.	.	.	.	.	.
	1983	.	.	.	.	.	.
	1984	16,75	14,70	14,70	.	.	.
	1985	18,56	16,28	16,28	16,39	14,38	14,38
I_2	1980	.	.	.	.	.	.
	1981	.	.	.	.	.	.
4 186 GJ	1982	.	.	.	.	.	.
200 Tage/days/jours/giorni	1983	.	.	.	.	.	.
	1984	16,53	14,47	14,47	.	.	.
	1985	18,27	16,03	16,03	15,89	13,94	13,94
I_{3-1}	1980	.	.	.	.	.	.
	1981	.	.	.	.	.	.
41 860 GJ	1982	.	.	.	.	.	.
250 Tage/days/jours/giorni	1983	.	.	.	.	.	.
1 600 h	1984	16,20	14,20	14,20			
	1985	17,93	15,73	15,73	14,73	12,92	12,92
I_{3-2}	1980	.	.	.	.	.	.
	1981	.	.	.	.	.	.
41 860 GJ	1982	.	.	.	.	.	.
250 Tage/days/ jours/giorni	1983	.	.	.	.	.	.
4 000 h	1984	16,03	14,06	14,06			
	1985	17,54	15,39	15,39	14,73	12,92	12,92
I_{4-1}	1980	.	.	.	.	.	.
	1981	.	.	.	.	.	.
418 600 GJ	1982	.	.	.	.	.	.
250 Tage/days/jours/giorni	1983	.	.	.	.	.	.
4 000 h	1984	15,25	13,39	13,39	.	.	.
	1985	16,92	14,84	14,84	14,58	12,79	12,79
I_{4-2}	1980	.	.	.	.	.	.
	1981	.	.	.	.	.	.
418 600 GJ	1982	.	.	.	.	.	.
330 Tage/days/jours/giorni	1983	.	.	.	.	.	.
8 000 h	1984	14,92	13,08	13,08	.	.	.
	1985	16,87	14,50	14,50	14,10	12,37	12,37
I_5	1980				.	.	.
	1981				.	.	.
4 186 000 GJ	1982				.	.	.
330 Tage/days/jours/giorni	1983				.	.	.
8 000 h	1984				.	.	.
	1985				14,00	12,28	12,28

* Naturgas
Natural gas

* Gaz naturel
Gas naturale

X

GASPREISE FUER HAUSHALTE
GAS PRICES FOR HOUSEHOLDS

9

PRIX DU GAZ POUR USAGES DOMESTIQUES
PREZZI DEL GAS PER USI DOMESTICI

FRANCE

FF/GJ

Januar Janvier January Gennaio		Lille *			Région parisienne *		
		Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. all taxes Prix hors taxes Prezzi imp. escluse	Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. taxes Prix hors taxes Prezzi imp. escluse
D_1	1980	67,91	57,75	57,75	67,88	57,73	57,73
	1981				76,75	65,27	65,27
8,37 GJ	1982		= PARIS		90,81	77,22	77,22
	1983				100,28	84,55	84,55
	1984				107,61	90,73	90,73
	1985				123,83	104,41	104,41
D_2	1980	57,80	49,15	49,15	57,77	49,13	49,13
	1981				66,11	56,22	56,22
16,74 GJ	1982		= PARIS		79,00	67,18	67,18
	1983				87,70	73,94	73,94
	1984				94,47	79,66	79,66
	1985				108,61	91,58	91,58
D_3	1980	38,14	32,43	32,43	38,12	32,42	32,42
	1981				44,88	38,16	38,16
83,7 GJ	1982		= PARIS		55,84	47,49	47,49
	1983				61,98	52,26	52,26
	1984				66,76	56,29	56,29
	1985				75,80	63,91	63,91
D_{3b}	1980	33,92	28,84	28,84	33,92	28,84	28,84
	1981				40,60	34,53	34,53
125,6 GJ	1982		= PARIS		51,35	43,67	43,67
	1983				57,35	48,36	48,36
	1984				62,13	52,38	52,38
	1985				70,95	59,82	59,82
D_4	1980	27,53	23,41	23,41	27,55	23,42	23,42
	1981				32,75	27,85	27,85
1 047 GJ	1982		= PARIS		43,30	36,82	36,82
	1983				48,36	40,77	40,77
	1984				52,87	44,58	44,58
	1985				62,12	52,38	52,38

* Naturgas
Natural gas

* Gaz naturel
Gas naturale

GASPREISE FUER HAUSHALTE
GAS PRICES FOR HOUSEHOLDS

10

PRIX DU GAZ POUR USAGES DOMESTIQUES
PREZZI DEL GAS PER USI DOMESTICI

FRANCE

FF/GJ

Januar January Janvier Gennaio		Lyon *			Toulouse *		
		Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. all taxes Prix hors taxes Prezzi imp. escluse	Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. taxes Prix hors taxes Prezzi imp. escluse
D_1	1980				67,91	57,75	57,75
	1981						
8,37 GJ	1982		= PARIS			= PARIS	
	1983						
	1984						
	1985						
D_2	1980				57,80	49,15	49,15
	1981						
16,74 GJ	1982		= PARIS			= PARIS	
	1983						
	1984						
	1985						
D_3	1980	38,14.	32,43	32,43	38,14	32,43	32,43
	1981						
83,7 GJ	1982						
	1983		= PARIS			= PARIS	
	1984						
	1985						
D_{3b}	1980	33,92	28,84	28,84	33,92	28,84	28,84
	1981						
125,6 GJ	1982						
	1983		= PARIS			= PARIS	
	1984						
	1985						
D_4	1980	27,53	23,41	23,41	27,53	23,41	23,41
	1981						
1 047 GJ	1982						
	1983		= PARIS			= PARIS	
	1984						
	1985						

* Naturgas
Natural gas

* Gaz naturel
Gas naturale

GASPREISE FUER HAUSHALTE
GAS PRICES FOR HOUSEHOLDS

11

PRIX DU GAZ POUR USAGES DOMESTIQUES
PREZZI DEL GAS PER USI DOMESTICI

FRANCE

FF/GJ

Januar January Janvier Gennaio		Strasbourg *			Marseille *		
		Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. all taxes Prix hors taxes Prezzi imp. escluse	Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. taxes Prix hors taxes Prezzi imp. escluse
D_1	1980	86,48	73,54	73,54			
	1981	106,72	90,75	90,75			
8,37 GJ	1982	127,88	108,74	108,74		= PARIS	
	1983	139,46	117,59	117,59			
	1984	148,55	125,25	125,25			
	1985	163,61	137,95	137,95			
D_2	1980	63,68	54,15	54,15			
	1981	79,73	67,80	67,80			
16,74 GJ	1982	96,07	81,69	81,69		= PARIS	
	1983	106,06	89,43	89,43			
	1984	112,80	95,11	95,11			
	1985	127,70	107,67	107,67			
D_3	1980	34,46	29,30	29,30	38,14	32,43	32,43
	1981	46,49	39,53	39,53			
83,7 GJ	1982	59,59	50,67	50,67			
	1983	65,68	55,38	55,38		= PARIS	
	1984	70,07	59,08	59,08			
	1985	79,78	67,27	67,27			
D_{3b}	1980	32,48	27,62	27,62	33,92	28,84	28,84
	1981	44,35	37,71	37,71			
125,6 GJ	1982	53,37	45,38	45,38			
	1983	63,34	53,41	53,41		= PARIS	
	1984	67,73	57,11	57,11			
	1985	77,03	64,95	64,95			
D_4	1980	27,04	22,99	22,99	27,53	23,41	23,41
	1981	36,39	30,94	30,94			
1 047 GJ	1982	48,43	41,18	41,18			
	1983	53,80	45,36	45,36		= PARIS	
	1984	58,84	49,61	49,61			
	1985	67,90	57,25	57,25			

* Naturgas
Natural gas

* Gaz naturel
Gas naturale

FRANCE

FF/GJ

Januar January Janvier Gennaio		Lille*			Region parisienne*		
		Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. all taxes Prix hors taxes Prezzi imp. escluse	Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. taxes Prix hors taxes Prezzi imp. escluse
I_1	1980	30,16	25,65	25,65	30,16	25,65	25,65
	1981	35,70	30,36	30,36	35,70	30,36	30,36
418,6 GJ	1982	46,57	39,60	39,60	46,57	39,60	39,60
	1983	51,85	43,72	43,72	51,85	43,72	43,72
	1984	56,49	47,63	47,63	56,49	47,63	47,63
	1985	63,51	53,55	53,55	63,51	53,55	53,55
I_2	1980	26,25	22,32	22,32	26,25	22,32	22,32
	1981	31,27	26,59	26,59	31,27	26,59	26,59
4 186 GJ	1982	41,67	35,44	35,44	41,67	35,44	35,44
200 Tage/days/jours/giorni	1983	46,61	39,30	39,30	46,61	39,30	39,30
	1984	51,08	43,07	43,07	51,08	43,07	43,07
	1985	55,24	46,58	46,58	55,24	46,58	46,58
I_{3-1}	1980	22,43	19,07	19,07	22,50	19,13	19,13
	1981	26,95	22,91	22,91	27,03	22,98	22,98
41 860 GJ	1982	35,35	30,06	30,06	35,45	30,14	30,14
250 Tage/days/jours/giorni	1983	38,97	32,86	32,86	39,08	32,95	32,95
1 600 h	1984	41,68	35,14	35,14	41,79	35,24	35,24
	1985	50,07	42,22	42,22	50,07	42,22	42,22
I_{3-2}	1980	21,77	18,51	18,51	21,86	18,59	18,59
	1981	26,20	22,28	22,28	26,29	22,35	22,35
41 860 GJ	1982	34,47	29,31	29,31	34,57	29,40	29,40
250 Tage/days/ jours/giorni	1983	38,00	32,04	32,04	38,11	32,14	32,14
4 000 h	1984	40,68	34,30	34,30	40,80	34,40	34,40
	1985	48,82	41,16	41,16	48,97	41,29	41,29
I_{4-1}	1980	19,81	16,85	16,85	19,89	16,91	16,91
	1981	23,98	20,39	20,39	24,07	20,47	20,47
418 600 GJ	1982	31,84	27,08	27,08	31,95	27,17	27,17
250 Tage/days/jours/giorni	1983	35,10	29,60	29,60	35,22	29,70	29,70
4 000 h	1984	37,70	31,78	31,78	37,81	31,88	31,88
	1985	45,54	38,39	38,39	45,66	38,50	38,50
I_{4-2}	1980	19,33	16,44	16,44	19,40	16,50	16,50
	1981	23,41	19,91	19,91	23,51	19,99	19,99
418 600 GJ	1982	31,18	26,51	26,51	31,29	26,61	26,61
330 Tage/days/jours/giorni	1983	34,37	28,98	28,98	34,49	29,08	29,08
8 000 h	1984	36,94	31,15	31,15	37,07	31,25	31,25
	1985	44,66	37,66	37,66	44,83	37,80	37,80
I_5	1980	19,13	16,27	16,27	19,22	16,34	16,34
	1981	23,19	19,72	19,72	23,29	19,80	19,80
4 186 000 GJ	1982	30,92	26,29	26,29	31,03	26,39	26,39
330 Tage/days/jours/giorni	1983	34,08	28,74	28,74	34,20	28,84	28,84
8 000 h	1984	36,64	30,90	30,90	36,77	31,01	31,01
	1985	44,33	37,39	37,39	44,51	37,53	37,53

* Naturgas
Natural gas

* Gaz naturel
Gas naturale

FF/GJ

Januar January Janvier Gennaio		Lyon *			Toulouse *		
		Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. all taxes Prix hors taxes Prezzi imp. escluse	Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. taxes Prix hors taxes Prezzi imp. escluse
I_1	1980	30,16	25,65	25,65	30,16	25,65	25,65
	1981	35,70	30,36	30,36	35,70	30,36	30,36
418,6 GJ	1982	46,57	39,60	39,60	46,57	39,60	39,60
	1983	51,85	43,72	43,72	51,85	43,72	43,72
	1984	56,49	47,63	47,63	56,49	47,63	47,63
	1985	63,51	53,55	53,55	63,51	53,55	53,55
I_2	1980	26,25	22,32	22,32	26,25	22,32	22,32
	1981	31,27	26,59	26,59	31,27	26,59	26,59
4 186 GJ	1982	41,67	35,44	35,44	41,67	35,44	35,44
200 Tage/days/jours/giorni	1983	46,61	39,30	39,30	46,61	39,30	39,30
	1984	51,08	43,07	43,07	51,08	43,07	43,07
	1985	55,24	46,58	46,58	55,24	46,58	46,58
I_{3-1}	1980	22,17	18,85	18,85	21,60	18,37	18,37
	1981	26,65	22,66	22,66	26,01	22,12	22,12
41 860 GJ	1982	35,00	29,77	29,77	34,25	29,12	29,12
250 Tage/days/jours/giorni	1983	38,59	32,54	32,54	37,75	31,83	31,83
1 600 h	1984	41,28	34,81	34,81	40,42	34,08	34,08
	1985	49,45	41,70	41,70	48,42	40,83	40,83
I_{3-2}	1980	21,56	18,34	18,34	20,64	17,55	17,55
	1981	25,96	22,08	22,08	24,91	21,18	21,18
41 860 GJ	1982	34,19	29,08	29,08	32,95	28,02	28,02
250 Tage/days/ jours/giorni	1983	37,69	31,78	31,78	36,32	30,62	30,62
4 000 h	1984	40,37	34,04	34,04	38,95	32,84	32,84
	1985	48,44	40,85	40,85	46,74	39,41	39,41
I_{4-1}	1980	19,62	16,68	16,68	18,87	16,05	16,05
	1981	23,74	20,19	20,19	22,92	19,49	19,49
418 600 GJ	1982	31,57	26,84	26,84	29,49	25,08	25,08
250 Tage/days/jours/giorni	1983	34,80	29,34	29,34	33,72	28,43	28,43
4 000 h	1984	37,38	31,52	31,52	36,27	30,58	30,58
	1985	45,16	38,08	38,08	43,94	37,05	37,05
I_{4-2}	1980	19,17	16,30	16,30	18,38	15,63	15,63
	1981	23,24	19,76	19,76	22,36	19,01	19,01
418 600 GJ	1982	30,97	26,33	26,33	27,68	23,54	23,54
330 Tage/days/jours/giorni	1983	34,14	28,78	28,78	32,98	27,81	27,81
8 000 h	1984	36,70	30,94	30,94	35,51	29,94	29,94
	1985	44,37	37,41	37,41	43,10	36,34	36,34
I_5	1980	18,96	16,13	16,13	18,26	15,53	15,53
	1981	23,02	19,57	19,57	22,21	18,89	18,89
4 186 000 GJ	1982	30,71	26,11	26,11	27,24	23,16	23,16
330 Tage/days/jours/giorni	1983	33,85	28,54	28,54	32,80	27,66	27,66
8 000 h	1984	36,40	30,70	30,70	35,32	29,78	29,78
	1985	44,04	37,15	37,15	42,89	36,16	36,16

* Naturgas
Natural gas

* Gaz naturel
Gas naturale

FRANCE

FF/GJ

Januar January Janvier Gennaio		Strasbourg *			Marseille *		
		Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. all taxes Prix hors taxes Prezzi imp. escluse	Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. taxes Prix hors taxes Prezzi imp. escluse
I_1	1980	32,99	28,05	28,05	30,16	25,65	25,65
	1981	43,91	37,34	37,34	35,70	30,36	30,36
418,6 GJ	1982	55,77	47,42	47,42	46,57	39,60	39,60
	1983	61,65	51,98	51,98	51,85	43,72	43,72
	1984	66,04	55,68	55,68	56,49	47,63	47,63
	1985	75,65	63,79	63,79	63,51	53,55	53,55
I_2	1980	27,47	23,36	23,36	26,25	22,32	22,32
	1981	36,95	31,42	31,42	31,27	26,59	26,59
4 186 GJ	1982	46,72	39,73	39,73	41,67	35,44	35,44
200 Tage/days/jours/giorni	1983	51,93	43,79	43,79	46,61	39,30	39,30
	1984	56,88	47,96	47,96	51,08	43,07	43,07
	1985	62,87	53,01	53,01	55,24	46,58	46,58
I_{3-1}	1980				22,48	19,11	19,11
	1981				27,00	22,96	22,96
41 860 GJ	1982				35,42	30,12	30,12
250 Tage/days/jours/giorni	1983				39,04	32,92	32,92
1 600 h	1984				41,76	35,21	35,21
	1985				50,03	42,18	42,18
I_{3-2}	1980	20,12	17,12	17,12	21,82	18,55	18,55
	1981	28,05	23,85	23,85	26,25	22,32	22,32
41 860 GJ	1982	36,66	31,17	31,17	34,53	29,36	29,36
250 Tage/days/ jours/giorni	1983	40,41	34,07	34,07	38,07	32,10	32,10
4 000 h	1984	43,17	36,40	36,40	40,75	34,36	34,36
	1985	51,61	43,52	43,52	48,90	41,23	41,23
I_{4-1}	1980				19,87	16,90	16,90
	1981				24,03	20,44	20,44
418 600 GJ	1982				31,91	27,13	27,13
250 Tage/days/jours/giorni	1983				35,17	29,66	29,66
4 000 h	1984				37,77	31,84	31,84
	1985				45,63	38,46	38,46
I_{4-2}	1980				19,37	16,47	16,47
	1981				23,46	19,95	19,95
418 600 GJ	1982				31,23	26,56	26,56
330 Tage/days/jours/giorni	1983				34,43	29,03	29,03
8 000 h	1984				37,01	31,20	31,20
	1985				44,75	37,72	37,72
I_5	1980				19,18	16,31	16,31
	1981				23,24	19,77	19,77
4 186 000 GJ	1982				30,97	26,34	26,34
330 Tage/days/jours/giorni	1983				34,15	28,79	28,79
8 000 h	1984				36,71	30,95	30,95
	1985				44,42	37,45	37,45

* Naturgas
Natural gas

* Gaz naturel
Gas naturale

GASPREISE FUER HAUSHALTE
GAS PRICES FOR HOUSEHOLDS

15

PRIX DU GAZ POUR USAGES DOMESTIQUES
PREZZI DEL GAS PER USI DOMESTICI

ITALIA

LIT/GJ

Januar January Janvier Gennaio		Torino *			Genova *		
		Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. all taxes Prix hors taxes Prezzi imp. escluse	Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. taxes Prix hors taxes Prezzi imp. escluse
D_1	1980	5 996	5 657	4 697	7 193	6 786	5 748
	1981	8 083	7 484	6 696	.	.	.
	1982	8 835	8 181	7 392	.	.	.
8,37 GJ	1983	13 227	12 247	11 458	12 415	11 495	10 707
	1984	16 037	14 849	14 061	16 319	15 111	14 332
	1985	16 968	15 567	14 779	18 167	16 667	15 879
D_2	1980	5 661	5 341	4 381	6 509	6 141	5 103
	1981	7 577	7 016	6 228	.	.	.
	1982	8 330	7 713	6 924	.	.	.
16,74 GJ	1983	11 637	10 775	9 987	11 822	10 946	10 157
	1984	14 215	13 162	12 374	14 539	13 462	12 673
	1985	15 171	13 918	13 130	16 371	15 019	14 230
D_3	1980	5 369	5 065	4 106	6 055	5 712	4 674
	1981	7 072	6 548	5 760	.	.	.
	1982	7 824	7 244	6 456	.	.	.
83,7 GJ	1983	10 265	9 504	8 716	11 347	10 506	9 718
	1984	12 657	11 720	10 931	13 114	12 143	11 354
	1985	13 832	12 690	11 901	13 937	12 786	11 997
D_{3b}	1980	5 321	5 020	4 061	6 123	5 776	4 739
	1981	7 048	6 526	5 738	.	.	.
	1982	7 800	7 222	6 434	.	.	.
125,6 GJ	1983	10 167	9 414	8 626	11 516	10 663	9 875
	1984	12 543	11 614	10 826	13 630	12 620	11 832
	1985	13 587	12 465	11 677	13 691	12 561	11 772
D_4	1980	5 293	4 994	4 036	5 524	5 211	4 174
	1981	7 089	6 564	5 776	.	.	.
	1982	7 840	7 259	6 462	.	.	.
1 047 GJ	1983	10 245	9 486	8 699	10 065	9 320	8 532
	1984	12 624	11 689	10 902	12 292	10 417	9 629
	1985	13 442	12 332	11 544	12 817	11 759	10 971

* Naturgas
Natural gas

* Gaz naturel
Gas naturale

ITALIA

LIT/GJ

Januar / January / Janvier / Gennaio		Roma *			Roma +		
		Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. all taxes Prix hors taxes Prezzi imp. escluse	Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. taxes Prix hors taxes Prezzi imp. escluse
D_1	1980	6 763	6 380	5 421	9 470	8 934	8 168
	1981	11 759	10 888	10 099	14 915	13 810	13 182
8,37 GJ	1982	12 519	11 592	10 804	15 742	14 576	13 947
	1983	17 754	16 272	15 484	20 992	19 437	18 817
	1984	20 026	18 543	17 754	25 454	23 569	22 934
	1985	20 037	18 383	17 595	25 419	23 320	22 710
D_2	1980	6 408	6 045	5 086	9 040	8 528	7 762
	1981	9 978	9 239	8 451	12 870	11 917	11 288
16,74 GJ	1982	10 739	9 944	9 155	13 697	12 682	12 054
	1983	14 915	13 810	13 022	18 067	16 729	16 109
	1984	16 903	15 651	14 863	22 296	20 644	20 011
	1985	18 241	16 735	15 946	23 621	21 671	21 062
D_3	1980	6 177	5 827	4 868	8 756	8 260	7 494
	1981	8 343	7 725	6 937	11 234	10 402	9 773
83,7 GJ	1982	9 104	8 430	7 641	12 061	11 168	10 539
	1983	12 610	11 676	10 887	15 727	14 562	13 942
	1984	14 190	13 139	12 351	19 771	18 306	17 672
	1985	14 294	13 114	12 326	20 009	18 357	17 747
D_{3b}	1980	6 130	5 783	4 824	8 704	8 211	7 445
	1981	8 204	7 596	6 808	11 093	10 271	9 643
125,6 GJ	1982	8 964	8 300	7 512	11 920	11 037	10 408
	1983	12 413	11 494	10 705	15 526	14 376	13 756
	1984	13 959	12 925	12 137	19 553	18 105	17 471
	1985	14 049	12 889	12 101	19 864	18 224	17 611
D_4	1980	5 855	5 524	4 566	8 139	7 678	6 909
	1981	7 985	7 394	6 606	10 987	10 173	9 542
1 047 GJ	1982	8 744	8 096	7 309	11 817	10 942	10 311
	1983	12 311	11 399	10 612	15 968	14 785	14 164
	1984	13 829	12 805	12 018	20 081	18 594	17 957
	1985	13 772	12 635	11 847	21 351	19 588	18 976

* Naturgas
Natural gas

\+ Ortsgas
Gasworks gas

* Gaz naturel
Gas naturale

\+ Gaz d'usines
Gas di officina

GASPREISE FUER HAUSHALTE
GAS PRICES FOR HOUSEHOLDS

17

PRIX DU GAZ POUR USAGES DOMESTIQUES
PREZZI DEL GAS PER USI DOMESTICI

ITALIA

LIT/GJ

Januar Janvier / January Gennaio		Milano +			Milano *		
		Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. all taxes Prix hors taxes Prezzi imp. escluse	Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. taxes Prix hors taxes Prezzi imp. escluse
D_1	1980	8 599	8 112	7 410	.	.	.
	1981	10 360	9 593	9 003			
8,37 GJ	1982	11 098	10 276	9 679	.	.	.
	1983	16 775	15 532	14 924	.	.	.
	1984	18 550	17 176	16 566	.	.	.
	1985	20 707	18 997	18 269	17 342	15 910	15 122
D_2	1980	8 068	7 611	6 909	.	.	.
	1981	10 050	9 306	8 716	.	.	.
16,74 GJ	1982	10 788	9 989	9 392	.	.	.
	1983	15 382	14 243	13 635	.	.	.
	1984	16 924	15 670	15 060	.	.	.
	1985	18 779	17 228	16 620	15 545	14 261	13 474
D_3	1980	7 636	7 204	6 501	.	.	.
	1981	9 804	9 078	8 488	.	.	.
83,7 GJ	1982	10 542	9 761	9 164	.	.	.
	1983	14 269	13 212	12 604	.	.	.
	1984	16 585	15 356	14 747	.	.	.
	1985	16 707	15 327	14 719	13 743	12 608	11 820
D_{3b}	1980	7 642	7 209	6 507	.	.	.
	1981	9 778	9 053	8 464	.	.	.
125,6 GJ	1982	10 515	9 737	9 140	.	.	.
	1983	14 168	13 119	12 511	.	.	.
	1984	16 148	14 952	14 342	.	.	.
	1985	16 459	15 100	14 492	13 494	12 380	11 592
D_4	1980	7 547	7 120	6 418	.	.	.
	1981	9 771	9 048	8 458	.	.	.
1 047 GJ	1982	10 508	9 730	9 133	.	.	.
	1983	14 164	13 115	12 507	.	.	.
	1984	15 498	14 350	13 740	.	.	.
	1985	16 475	15 115	14 507	12 698	11 650	10 862

* Naturgas
Natural gas

\+ Ortsgas
Gasworks

* Gaz naturel
Gas naturale

\+ Gaz d'usines
Gas di officina

ITALIA

LIT/GJ

Januar Janvier / January Gennaio		Napoli +					
		Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. all taxes Prix hors taxes Prezzi imp. escluse	Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. taxes Prix hors taxes Prezzi imp. escluse
D_1	1980	10 812	10 200	9 383			
	1981	14 899	13 795	13 107			
8,37 GJ	1982	14 953	13 845	13 845			
	1983	20 604	19 078	19 078			
	1984	22 661	20 982	20 982			
	1985						
D_2	1980	10 743	10 135	9 317			
	1981	14 352	13 289	12 601			
16,74 GJ	1982	14 407	13 340	13 340			
	1983	18 956	17 552	17 552			
	1984	20 771	19 232	19 232			
	1985						
D_3	1980	7 227	6 818	6 000			
	1981	10 997	10 182	9 424			
83,7 GJ	1982	11 051	10 232	10 232			
	1983	14 794	13 698	13 698			
	1984	16 114	14 920	14 920			
	1985						
D_{3b}	1980	7 024	6 626	5 809			
	1981	10 708	9 915	9 227			
125,6 GJ	1982	10 767	9 969	9 969			
	1983	14 454	13 383	13 383			
	1984	15 913	14 734	14 734			
	1985						
D_4	1980	6 649	6 273	5 455			
	1981	10 169	9 416	8 728			
1 047 GJ	1982	10 230	9 472	9 472			
	1983	13 865	12 838	12 838			
	1984	15 089	13 971	13 971			
	1985						

* Naturgas
Natural gas

\+ Ortsgas
Gasworks gas

* Gaz naturel
Gas naturale

\+ Gaz d'usines
Gas di officina

ITALIA

LIT/GJ

Januar January Janvier Gennaio		Torino *			Genova *		
		Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. all taxes Prix hors taxes Prezzi imp. escluse	Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. taxes Prix hors taxes Prezzi imp. escluse
I_1	1980	5 078	4 454	4 454	4 435	3 891	3 891
	1981	7 297	6 345	6 345	.	.	.
418,6 GJ	1982	8 098	7 042	7 042	.	.	.
	1983	11 120	9 424	9 424	8 551	7 247	7 247
	1984	13 751	11 653	11 653	9 355	7 928	7 928
	1985	14 184	12 020	12 020	12 942	10 968	10 968
I_2	1980	4 999	4 385	4 385	4 293	3 766	3 766
	1981	7 198	6 259	6 259	.	.	.
4 186 GJ	1982	7 999	6 956	6 956	.	.	.
200 Tage/days/jours/giorni	1983	10 816	9 166	9 166	8 590	7 280	7 280
	1984	13 406	11 361	11 361	9 470	8 026	8 026
	1985	13 372	11 332	11 332	12 107	10 260	10 260
I_{3-1}	1980	3 858	3 384	3 384			
	1981	5 929	5 156	5 156			
41 860 GJ	1982	7 543	6 559	6 559		= TORINO	
250 Tage/days/jours/giorni	1983	8 554	7 249	7 249			
1 600 h	1984	9 411	7 975	7 975			
	1985	10 991	10 083	10 083			
I_{3-2}	1980	3 858	3 384	3 384			
	1981	5 929	5 156	5 156			
41 860 GJ	1982	7 543	6 559	6 559		= TORINO	
250 Tage/days/ jours/giorni	1983	8 554	7 249	7 249			
4 000 h	1984	9 411	7 975	7 975			
	1985	10 735	9 849	9 849			
I_{4-1}	1980	3 776	3 312	3 312			
	1981	5 689	4 947	4 947			
418 600 GJ	1982	7 236	6 292	6 292		= TORINO	
250 Tage/days/jours/giorni	1983	8 193	6 943	6 943			
4 000 h	1984	8 944	7 580	7 580			
	1985	10 213	9 370	9 370			
I_{4-2}	1980	3 776	3 312	3 312			
	1981	5 689	4 947	4 947			
418 600 GJ	1982	7 236	6 292	6 292		= TORINO	
330 Tage/days/jours/giorni	1983	8 193	6 943	6 943			
8 000 h	1984	8 944	7 580	7 580			
	1985	9 967	9 144	9 144			
I_5	1980	3 653	3 204	3 204			
	1981	5 382	4 680	4 680			
4 186 000 GJ	1982	6 846	5 953	5 953		= TORINO	
330 Tage/days/jours/giorni	1983	7 750	6 568	6 568			
8 000 h	1984	8 441	7 153	7 153			
	1985	9 400	8 624	8 624			

* Naturgas
Natural gas

* Gaz naturel
Gas naturale

ITALIA

LIT/GJ

Januar January Janvier Gennaio		Roma *			Roma +		
		Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. all taxes Prix hors taxes Prezzi imp. escluse	Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. taxes Prix hors taxes Prezzi imp. escluse
I_1	1980	6 134	5 381	5 381	9 350	8 202	8 202
	1981	9 034	7 856	7 856	13 916	12 101	12 101
418,6 GJ	1982	9 844	8 560	8 560	14 800	12 870	12 870
	1983	12 780	10 830	10 830	20 426	17 310	17 310
	1984	14 475	12 267	12 267	25 064	21 241	21 241
	1985	14 541	12 323	12 323	25 672	21 756	21 756
I_2	1980	6 056	5 312	5 312	8 958	7 858	7 858
	1981	8 935	7 770	7 770	13 422	11 671	11 671
4 186 GJ	1982	9 745	8 474	8 474	14 306	12 440	12 440
200 Tage/days/jours/giorni	1983	12 423	10 528	10 528	18 904	16 020	16 020
	1984	14 067	11 921	11 921	23 338	19 778	19 778
	1985	13 729	11 635	11 635	21 883	18 545	18 545
I_{3-1}	1980						
	1981						
41 860 GJ	1982						
250 Tage/days/jours/giorni	1983		= TORINO				
1 600 h	1984						
	1985						
I_{3-2}	1980						
	1981						
41 860 GJ	1982						
250 Tage/days/ jours/giorni	1983		= TORINO				
4 000 h	1984						
	1985						
I_{4-1}	1980						
	1981						
418 600 GJ	1982						
250 Tage/days/jours/giorni	1983		= TORINO				
4 000 h	1984						
	1985						
I_{4-2}	1980						
	1981						
418 600 GJ	1982						
330 Tage/days/jours/giorni	1983		= TORINO				
8 000 h	1984						
	1985						
I_5	1980						
	1981						
4 186 000 GJ	1982						
330 Tage/days/jours/giorni	1983		= TORINO				
8 000 h	1984						
	1985						

* Naturgas
Natural gas

\+ Ortsgas
Gasworks gas

* Gaz naturel
Gas naturale

\+ Gaz d'usines
Gas di officina

ITALIA

LIT/GJ

Januar January Janvier · Gennaio		Milano *			Milano +		
		Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. all taxes Prix hors taxes Prezzi imp. escluse	Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. taxes Prix hors taxes Prezzi imp. escluse
I_1	1980	.	.	.	7 343	6 441	6 441
	1981	.	.	.	9 790	8 513	8 513
418,6 GJ	1982	.	.	.	10 568	9 190	9 190
	1983	.	.	.	15 070	12 771	12 771
	1984	.	.	.	16 564	14 040	14 040
	1985	13 203	11 189	11 189	17 938	15 202	15 202
I_2	1980	.	.	.	7 321	6 422	6 422
	1981	.	.	.	9 741	8 470	8 470
4 186 GJ	1982	.	.	.	10 518	9 146	9 146
200 Tage/days/jours/giorni	1983	.	.	.	14 817	12 557	12 557
	1984	.	.	.	16 279	13 796	13 796
	1985	12 797	10 845	10 845	17 262	14 629	14 629
I_{3-1}	1980						
	1981						
41 860 GJ	1982		= TORINO				
250 Tage/days/jours/giorni	1983						
1 600 h	1984						
	1985						
I_{3-2}	1980						
	1981						
41 860 GJ	1982		= TORINO				
250 Tage/days/ jours/giorni	1983						
4 000 h	1984						
	1985						
I_{4-1}	1980						
	1981						
418 600 GJ	1982		= TORINO				
250 Tage/days/jours/giorni	1983						
4 000 h	1984						
	1985						
I_{4-2}	1980						
	1981						
418 600 GJ	1982		= TORINO				
330 Tage/days/jours/giorni	1983						
8 000 h	1984						
	1985						
I_5	1980						
	1981						
4 186 000 GJ	1982		= TORINO				
330 Tage/days/jours/giorni	1983						
8 000 h	1984						
	1985						

* Naturgas
Natural gas

\+ Ortsgas
Gasworks gas

* Gaz naturel
Gas naturale

\+ Gaz d'usines
Gas di officina

ITALIA — LIT/GJ — GRAND–DUCHE DE LUXEMBOURG — LFR/GJ

Januar January Janvier Gennaio		Napoli +			Luxembourg *		
		Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. all taxes Prix hors taxes Prezzi imp. escluse	Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. taxes Prix hors taxes Prezzi imp. escluse
I_1	1980	–	–	–	133,0	126,7	126,7
	1981	10 175	8 848	8 848	193,4	184,2	184,2
418,6 GJ	1982	11 024	9 586	9 586	283,0	269,5	269,5
	1983	15 423	13 070	13 070	290,2	276,4	276,4
	1984	16 814	14 249	14 249	296,3	279,5	279,5
	1985				348,6	328,9	328,9
I_2	1980				111,3	106,0	106,0
	1981				177,7	169,3	169,3
4 186 GJ	1982				272,1	259,1	259,1
200 Tage/days/jours/giorni	1983				279,6	266,3	266,3
	1984				285,9	269,7	269,7
	1985				340,9	321,6	321,6
I_{3-1}	1980				98,8	94,1	94,1
	1981				164,5	156,7	156,7
41 860 GJ	1982	= TORINO			257,8	245,5	245,5
250 Tage/days/jours/giorni	1983				265,0	252,4	252,4
1 600 h	1984				271,1	255,8	255,8
	1985				325,7	307,3	307,3
I_{3-2}	1980				90,3	86,0	86,0
	1981				152,6	145,3	145,3
41 860 GJ	1982				240,2	228,8	228,8
250 Tage/days/ jours/giorni	1983	= TORINO			247,2	235,4	235,4
4 000 h	1984				252,7	238,4	238,4
	1985				304,0	286,8	286,8
I_{4-1}	1980						
	1981						
418 600 GJ	1982	= TORINO					
250 Tage/days/jours/giorni	1983						
4 000 h	1984						
	1985						
I_{4-2}	1980						
	1981						
418 600 GJ	1982						
330 Tage/days/jours/giorni	1983	= TORINO					
8 000 h	1984						
	1985						
I_5	1980						
	1981						
4 186 000 GJ	1982	= TORINO					
330 Tage/days/jours/giorni	1983						
8 000 h	1984						
	1985						

* Naturgas
Natural gas

\+ Ortsgas für I,
Gasworks gas for I,

* Gaz naturel
Gas naturale

\+ Gaz d'usines pour I,
Gas di officina per I,

NEDERLAND HFL/GJ DANMARK DKR/GJ

Januar January Janvier Gennaio		Rotterdam *			København +		
		Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. all taxes Prix hors taxes Prezzi imp. escluse	Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. taxes Prix hors taxes Prezzi imp. escluse
D_1	1980	16,51	13,99	13,98	116,37	96,77	84,83
	1981	20,17	17,09	17,08	139,64	114,46	104,90
8,37 GJ	1982	22,51	19,08	19,07	148,32	121,57	112,01
	1983	24,69	20,92	20,91	179,43	147,07	137,51
	1984	25,91	21,77	21,76	178,40	146,23	146,23
	1985	26,93	22,63	22,62	170,76	139,96	139,96
D_2	1980	13,12	11,12	11,11	111,20	92,47	80,53
	1981	16,78	14,22	14,21	134,40	110,16	100,60
16,74 GJ	1982	19,13	16,21	16,20	143,06	117,26	107,71
	1983	20,67	17,51	17,50	172,29	141,22	131,66
	1984	21,86	18,37	18,36	170,68	139,90	139,90
	1985	22,88	19,23	19,22	162,01	132,80	132,80
D_3	1980	10,42	8,83	8,82	88,10	73,26	61,31
	1981	14,08	11,93	11,92	107,31	87,96	78,40
83,7 GJ	1982	16,43	13,92	13,91	115,99	95,07	85,51
	1983	17,46	14,79	14,78	135,67	111,21	101,65
	1984	18,61	15,64	15,63	131,64	107,90	107,90
	1985	19,64	16,50	16,49	120,09	98,43	98,43
D_{3b}	1980	10,20	8,64	8,63	86,86	72,23	60,29
	1981	13,85	11,74	11,73	106,05	86,92	77,36
125,6 GJ	1982	16,20	13,73	13,72	114,72	94,02	84,47
	1983	17,19	14,56	14,55	134,27	110,06	100,50
	1984	18,34	15,41	15,40	130,15	106,68	106,68
	1985	19,36	16,27	16,26	118,47	97,11	97,11
D_4	1980	9,95	8,43	8,42	84,82	70,53	58,61
	1981	13,60	11,53	11,52	103,86	85,13	75,57
1 047 GJ	1982	15,96	13,52	13,51	112,52	92,23	82,68
	1983	16,89	14,31	14,30	131,84	108,07	98,52
	1984	18,04	15,16	15,15	127,57	104,57	104,57
	1985	19,06	16,02	16,01	116,19	95,24	95,24

* Naturgas
Natural gas

\+ Ortsgas
Gasworks gas

* Gaz naturel
Gas naturale

\+ Gaz d'usines
Gas di officina

Januar January Janvier Gennaio		NEDERLAND HFL/GJ			DANMARK DKR/GJ		
		Rotterdam *			København +		
		Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. all taxes Prix hors taxes Prezzi imp. escluse	Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. taxes Prix hors taxes Prezzi imp. escluse
I_1	1980	9,87	8,37	8,36	97,56	81,13	69,18
	1981	13,53	11,47	11,46	119,02	97,56	88,01
418,6 GJ	1982	15,89	13,46	13,45	127,70	104,67	95,11
	1983	16,81	14,24	14,23	151,40	124,10	114,54
	1984	17,97	15,10	15,09	148,57	121,77	121,77
	1985	18,98	15,95	15,94	138,08	113,18	113,18
I_2	1980	9,76	8,27	8,26	87,12	72,44	60,51
	1981	13,41	11,37	11,36	106,43	87,24	77,68
4 186 GJ	1982	15,77	13,36	13,35	115,09	94,34	84,79
200 Tage/days/jours/giorni	1983	16,67	14,12	14,11	134,34	110,12	100,56
	1984	17,82	14,97	14,96	130,47	106,94	106,94
	1985	18,84	15,83	15,82	118,96	97,51	97,51
I_{3-1}	1980	8,96	7,59	7,59			
	1981	11,53	9,77	9,77			
41 860 GJ	1982	15,51	13,14	13,14			
250 Tage/days/jours/giorni	1983	15,10	12,80	12,80			
1 600 h	1984	16,21	13,62	13,62			
	1985	17,75	14,92	14,92			
I_{3-2}	1980	8,96	7,59	7,59			
	1981	11,53	9,77	9,77			
41 860 GJ	1982	15,51	13,14	13,14			
250 Tage/days/ jours/giorni	1983	15,10	12,80	12,80			
4 000 h	1984	16,21	13,62	13,62			
	1985	17,75	14,92	14,92			
I_{4-1}	1980	8,64	7,32	7,32			
	1981	11,06	9,37	9,37			
418 600 GJ	1982	14,68	12,44	12,44			
250 Tage/days/jours/giorni	1983	14,08	11,93	11,93			
4 000 h	1984	15,16	12,74	12,74			
	1985	16,78	14,10	14,10			
I_{4-2}	1980	8,64	7,32	7,32			
	1981	11,06	9,37	9,37			
418 600 GJ	1982	14,68	12,44	12,44			
330 Tage/days/jours/giorni	1983	14,08	11,93	11,93			
8 000 h	1984	15,16	12,74	12,74			
	1985	16,78	14,10	14,10			
I_5	1980	8,14	6,90	6,90			
	1981	10,54	8,93	8,93			
4 186 000 GJ	1982	13,85	11,74	11,74			
330 Tage/days/jours/giorni	1983	13,26	11,24	11,24			
8 000 h	1984	14,26	11,98	11,98			
	1985	15,80	13,28	13,28			

* Naturgas
Natural gas

\+ Ortsgas
Gasworks gas

* Gaz naturel
Gas naturale

\+ Gaz d'usines
Gas di officina

BELGIQUE/BELGIE

BFR/GJ

Januar January Janvier Gennaio		Antwerpen *			Liège *		
		Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. all taxes Prix hors taxes Prezzi imp. escluse	Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. taxes Prix hors taxes Prezzi imp. escluse
D_1	1980	419,3	395,6	395,6	415,1	391,6	391,6
	1981	479,1	413,0	413,0			
8,37 GJ	1982						
	1983						
	1984		= BRUXELLES			= BRUXELLES	
	1985						
D_2	1980	392,2	370,0	370,0	380,5	359,0	359,0
	1981	448,3	386,5	386,5			
16,74 GJ	1982	552,9	472,6	472,6			
	1983	598,0	511,1	511,1		= BRUXELLES	
	1984	635,2	542,9	542,9			
	1985	670,8	573,3	573,3			
D_3	1980						
	1981						
83,7 GJ	1982						
	1983		= BRUXELLES			= BRUXELLES	
	1984						
	1985						
D_{3b}	1980						
	1981						
125,6 GJ	1982						
	1983		= BRUXELLES			= BRUXELLES	
	1984						
	1985						
D_4	1980						
	1981						
1 047 GJ	1982						
	1983		= BRUXELLES			= BRUXELLES	
	1984						
	1985						

* Naturgas
Natural gas

* Gaz naturel
Gas naturale

BELGIQUE/BELGIE — GRAND–DUCHE DE LUXEMBOURG

BFR/GJ — LFR/GJ

Januar Janvier	January Gennaio	Bruxelles * Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Bruxelles * Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Bruxelles * Preis ohne Steuern Price excl. all taxes Prix hors taxes Prezzi imp. escluse	Luxembourg * Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Luxembourg * Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Luxembourg * Preis ohne Steuern Price excl. taxes Prix hors taxes Prezzi imp. escluse
D_1	1980	418,1	394,4	394,4	409,5	390,0	390,0
	1981	496,6	428,1	428,1	469,2	446,9	446,9
8,37 GJ	1982	585,1	500,1	500,1	591,6	563,4	563,4
	1983	630,9	539,2	539,2	601,7	573,0	573,0
	1984	668,5	571,4	571,4	612,6	577,9	577,9
	1985	705,1	602,7	602,7	683,9	645,2	645,2
D_2	1980	383,4	361,7	361,7	354,9	338,0	338,0
	1981	458,4	395,2	395,2	408,8	389,4	389,4
16,74 GJ	1982	546,4	467,0	467,0	510,0	485,7	485,7
	1983	591,3	505,4	505,4	518,2	493,5	493,5
	1984	628,5	537,2	537,2	527,0	497,2	497,2
	1985	663,9	567,5	567,5	586,2	553,0	553,0
D_3	1980	199,7	188,4	188,4	149,9	142,8	142,8
	1981	264,6	228,1	228,1	221,2	210,7	210,7
83,7 GJ	1982	359,7	307,4	307,4	325,4	307,9	307,9
	1983	400,8	342,6	342,6	331,5	315,7	315,7
	1984	435,6	372,3	372,3	338,7	319,5	319,5
	1985	465,5	397,9	397,9	398,2	375,7	375,7
D_{3b}	1980	188,0	177,4	177,4	142,7	135,9	135,9
	1981	251,5	216,8	216,8	209,9	199,9	199,9
125,6 GJ	1982	345,7	295,5	295,5	307,3	292,6	292,6
	1983	386,7	330,5	330,5	315,1	300,1	300,1
	1984	421,3	360,1	360,1	319,3	301,2	301,2
	1985	450,7	385,3	385,3	375,7	354,4	354,4
D_4	1980	150,8	142,3	142,3	125,4	119,4	119,4
	1981	209,3	180,4	180,4	181,9	173,3	173,3
1 047 GJ	1982	301,3	257,5	257,5	266,8	254,1	254,1
	1983	341,4	291,8	291,8	273,5	260,5	260,5
	1984	375,6	321,0	321,0	279,1	263,3	263,3
	1985	403,6	345,0	345,0	328,7	310,1	310,1

* Naturgas
Natural gas

* Gaz naturel
Gas naturale

BELGIQUE/BELGIE *

BFR/GJ

Januar January Janvier Gennaio		Cne = 0; P = 0,9 (1)			Cne = 1,0; P = 1 (1)		
		Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. all taxes Prix hors taxes Prezzi imp. escluse	Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. taxes Prix hors taxes Prezzi imp. escluse
I_1	1980				172,6	162,8	162,8
	1981				233,9	201,6	201,6
418,6 GJ	1982				327,1	279,6	279,6
	1983				367,7	314,3	314,3
	1984				402,3	343,8	343,8
	1985				431,1	368,4	368,4
I_2	1980				143,8	135,7	135,7
	1981				201,4	173,6	173,6
4 186 GJ	1982				293,0	250,4	250,4
200 Tage/days/jours/giorni	1983				333,0	284,6	284,6
	1984				366,9	313,6	313,6
	1985				394,8	337,4	337,4
I_{3-1}	1980	125,1	118,1	118,1	140,6	132,6	132,6
	1981	173,1	149,2	149,2	190,1	163,9	163,9
41 860 GJ	1982	259,3	221,6	221,6	276,9	236,7	236,7
250 Tage/days/jours/giorni	1983	285,1	243,7	243,7	303,2	259,1	259,1
1 600 h	1984	314,7	269,0	269,0	333,0	284,6	284,6
	1985	342,0	292,3	292,3	360,5	308,2	308,2
I_{3-2}	1980	101,2	95,5	95,5	116,6	110,0	110,0
	1981	146,3	126,1	126,1	163,2	140,7	140,7
41 860 GJ	1982	230,5	197,0	197,0	248,2	212,1	212,1
250 Tage/days/ jours/giorni	1983	255,3	218,2	218,2	273,3	233,6	233,6
4 000 h	1984	284,2	242,9	242,9	302,5	258,5	258,5
	1985	310,4	265,3	265,3	329,0	281,2	281,2
I_{4-1}	1980	101,2	95,5	95,5	116,6	110,0	110,0
	1981	146,3	126,1	126,1	163,2	140,7	140,7
418 600 GJ	1982	230,5	197,0	197,0	248,2	212,1	212,1
250 Tage/days/jours/giorni	1983	255,3	218,2	218,2	273,3	233,6	233,6
4 000 h	1984	284,2	242,9	242,9	302,5	258,5	258,5
	1985	310,4	265,3	265,3	329,0	281,2	281,2
I_{4-2}	1980	93,3	88,0	88,0	108,7	102,5	102,5
	1981	137,2	118,3	118,3	154,3	133,0	133,0
418 600 GJ	1982	221,0	188,9	188,9	238,7	204,0	204,0
330 Tage/days/jours/giorni	1983	245,2	209,6	209,6	263,3	225,0	225,0
8 000 h	1984	274,0	234,2	234,2	292,3	249,8	249,8
	1985	299,9	256,3	256,3	318,5	272,2	272,2
I_5	1980	90,9	85,8	85,8	105,8	99,8	99,8
	1981	134,8	116,2	116,2	151,3	130,4	130,4
4 186 000 GJ	1982	218,4	186,7	186,7	235,5	201,3	201,3
330 Tage/days/jours/giorni	1983	242,7	207,4	207,4	260,1	222,3	222,3
8 000 h	1984	271,4	232,0	232,0	289,1	247,1	247,1
	1985	297,3	254,1	254,1	315,3	269,5	269,5

* Naturgas
Natural gas

(1) Siehe Text
See text
Voir texte
Vedere testo

* Gaz naturel
Gas naturale

BELGIQUE/BELGIE *

BFR/GJ

Januar January Janvier Gennaio		Cne = 0,5; P = 1 (1)			Cne = 1; P = 1,1 (1)		
		Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. all taxes Prix hors taxes Prezzi imp. escluse	Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. taxes Prix hors taxes Prezzi imp. escluse
I_1	1980						
	1981						
418,6 GJ	1982						
	1983						
	1984						
	1985						
I_2	1980						
	1981						
4 186 GJ	1982						
200 Tage/days/jours/giorni	1983						
	1984						
	1985						
I_{3-1}	1980	136,8	129,1	129,1	149,4	140,9	140,9
	1981	185,9	160,3	160,3	199,8	172,2	172,2
41 860 GJ	1982	272,5	232,9	232,9	286,7	245,0	245,0
250 Tage/days/jours/giorni	1983	298,6	255,2	255,2	313,0	267,5	267,5
1 600 h	1984	328,3	280,6	280,6	342,8	293,0	293,0
	1985	355,7	304,0	304,0	370,4	316,6	316,6
I_{3-2}	1980	113,0	106,6	106,6	125,4	118,3	118,3
	1981	159,2	137,2	137,2	173,0	149,1	149,1
41 860 GJ	1982	243,8	208,4	208,4	258,0	220,5	220,5
250 Tage/days/ jours/giorni	1983	268,8	229,7	229,7	283,1	242,0	242,0
4 000 h	1984	297,8	254,5	254,5	312,3	266,9	266,9
	1985	324,2	277,1	277,1	338,9	289,6	289,6
I_{4-1}	1980	113,0	106,6	106,6	125,4	118,3	118,3
	1981	159,2	137,2	137,2	173,0	149,1	149,1
418 600 GJ	1982	243,8	208,4	208,4	258,0	220,5	220,5
250 Tage/days/jours/giorni	1983	268,8	229,7	229,7	283,1	242,0	242,0
4 000 h	1984	297,8	254,5	254,5	312,3	266,9	266,9
	1985	324,2	277,1	277,1	338,9	289,6	289,6
I_{4-2}	1980	105,0	99,1	99,1	117,4	110,8	110,8
	1981	150,2	129,5	129,5	164,0	141,4	141,4
418 600 GJ	1982	234,2	200,2	200,2	248,5	212,4	212,4
330 Tage/days/jours/giorni	1983	258,8	221,2	221,2	273,2	233,5	233,5
8 000 h	1984	287,6	245,8	245,8	302,1	258,2	258,2
	1985	313,6	268,1	268,1	328,4	280,6	280,6
I_5	1980	102,3	96,5	96,5	114,4	107,9	107,9
	1981	147,2	126,9	126,9	160,5	138,4	138,4
4 186 000 GJ	1982	231,3	197,7	197,7	245,0	209,4	209,4
330 Tage/days/jours/giorni	1983	255,8	218,6	218,6	269,7	230,5	230,5
8 000 h	1984	284,5	243,2	243,2	298,6	255,2	255,2
	1985	310,6	265,5	265,5	324,9	277,7	277,7

* Naturgas
Natural gas

XXX

(1) Siehe Text
See text
Voir texte
Vedere testo

* Gaz naturel
Gas naturale

GASPREISE FUER HAUSHALTE
GAS PRICES FOR HOUSEHOLDS

29

PRIX DU GAZ POUR USAGES DOMESTIQUES
PREZZI DEL GAS PER USI DOMESTICI

UNITED KINGDOM

UKL/GJ

Januar January Janvier Gennaio		Leeds *			Birmingham *		
		Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. all taxes Prix hors taxes Prezzi imp. escluse	Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. taxes Prix hors taxes Prezzi imp. escluse
D_1	1980	2,64	2,64	2,64	2,44	2,44	2,44
	1981	3,51	3,51	3,51	3,22	3,22	3,22
8,37 GJ	1982	5,17	5,17	5,17	4,84	4,84	4,84
	1983	6,36	6,36	6,36	5,99	5,99	5,99
	1984	6,52	6,52	6,52	6,15	6,15	6,15
	1985	6,52	6,52	6,52	6,15	6,15	6,15
D_2	1980	2,46	2,46	2,46	2,36	2,36	2,36
	1981	3,34	3,34	3,34	3,15	3,15	3,15
16,74 GJ	1982	4,37	4,37	4,37	4,25	4,25	4,25
	1983	5,37	5,37	5,37	5,23	5,23	5,23
	1984	5,53	5,53	5,53	5,39	5,39	5,39
	1985	5,53	5,53	5,53	5,39	5,39	5,39
D_{2b}(1)	1980	2,09	2,09	2,09	2,02	2,02	2,02
	1981	2,69	2,69	2,69	2,59	2,59	2,59
83,7 GJ	1982	3,47	3,47	3,47	3,41	3,41	3,41
	1983	4,27	4,27	4,27	4,20	4,20	4,20
	1984	4,43	4,43	4,43	4,36	4,36	4,36
	1985	4,43	4,43	4,43	4,36	4,36	4,36
D_3	1980	1,78	1,78	1,78	1,75	1,75	1,75
	1981	2,28	2,28	2,28	2,24	2,24	2,24
125,6 GJ	1982	2,94	2,94	2,94	2,91	2,91	2,91
	1983	3,61	3,61	3,61	3,59	3,59	3,59
	1984	3,78	3,78	3,78	3,75	3,75	3,75
	1985	3,78	3,78	3,78	3,75	3,75	3,75
D_4	1980	1,70	1,70	1,70	1,69	1,69	1,69
	1981	2,19	2,19	2,19	2,16	2,16	2,16
1 047 GJ	1982	2,82	2,82	2,82	2,80	2,80	2,80
	1983	3,47	3,47	3,47	3,45	3,45	3,45
	1984	3,63	3,63	3,63	3,61	3,61	3,61
	1985	3,63	3,63	3,63	3,61	3,61	3,61

* Naturgas
Natural gas

* Gaz naturel
Gas naturale

(1) Zusätzlicher typischer Abnehmer für das Vereinigte Königreich
(1) Extra standard consumer for United Kingdom only

(1) Consommateur–type supplémentaire, Royaume–Uni seulement
(1) Consumatore tipo supplementare per il Regno Unito

GASPREISE FUER HAUSHALTE
GAS PRICES FOR HOUSEHOLDS

30

PRIX DU GAZ POUR USAGES DOMESTIQUES
PREZZI DEL GAS PER USI DOMESTICI

UNITED KINGDOM **U KL/GJ** **IRELAND** **IRL/GJ**

Januar Janvier / January Gennaio		London * Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	London * Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	London * Preis ohne Steuern Price excl. all taxes Prix hors taxes Prezzi imp. escluse	Dublin + Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Dublin + Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Dublin + Preis ohne Steuern Price excl. taxes Prix hors taxes Prezzi imp. escluse
D_1	1980	3,00	3,00	3,00	8,13	8,13	8,13
	1981	3,79	3,79	3,79	12,22	12,22	12,22
8,37 GJ	1982	5,51	5,51	5,51	14,78	14,78	14,78
	1983	6,79	6,79	6,79	14,74	14,74	14,74
	1984	6,67	6,67	6,67	15,48	14,74	14,74
	1985	6,67	6,67	6,67	15,48	14,74	14,74
D_2	1980	2,85	2,85	2,85	8,02	8,02	8,02
	1981	3,77	3,77	3,77	12,12	12,12	12,12
16,74 GJ	1982	4,49	4,49	4,49	14,68	14,68	14,68
	1983	5,54	5,54	5,54	12,42	12,42	12,42
	1984	5,70	5,70	5,70	13,04	12,42	12,42
	1985	5,70	5,70	5,70	13,04	12,42	12,42
D_{2b} (1)	1980	2,32	2,32	2,32			
	1981	2,94	2,94	2,94			
83,7 GJ	1982	3,53	3,53	3,53			
	1983	4,36	4,36	4,36			
	1984	4,52	4,52	4,52			
	1985	4,52	4,52	4,52			
D_3	1980	1,87	1,87	1,87	6,46	6,46	6,46
	1981	2,28	2,38	2,38	10,30	10,30	10,30
125,6 GJ	1982	2,96	2,96	2,96	12,86	12,86	12,86
	1983	3,65	3,65	3,65	7,61	7,61	7,61
	1984	3,81	3,81	3,81	7,99	7,61	7,61
	1985	3,81	3,81	3,81	7,99	7,61	7,61
D_{3b}	1980	1,77	1,77	1,77	6,39	6,39	6,39
	1981	2,26	2,26	2,26	10,22	10,22	10,22
1 047 GJ	1982	2,83	2,83	2,83	12,78	12,78	12,78
	1983	3,49	3,49	3,49	7,06	7,06	7,06
	1984	3,65	3,65	3,65	7,41	7,06	7,06
	1985	3,65	3,65	3,65	7,41	7,06	7,06

* Naturgas
Natural gas

* Gaz naturel
Gas naturale

\+ Ortsgas
Gasworks gas

\+ Gaz d'usines
Gas di officina

(1) Zusätzlicher typischer Abnehmer für das Vereinigte Königreich
(1) Extra standard consumer for United Kingdom only

(1) Consommateur–type supplementaire, Royaume–Uni seulement
(1) Consumatore tipo supplementare per il Regno Unito

UNITED KINGDOM UKL/GJ IRELAND IRL/GJ

Januar January Janvier Gennaio		London*–Leeds*–Birmingham*			Dublin +		
		Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. all taxes Prix hors taxes Prezzi imp. escluse	Preis alle Steuern inbegr. Price incl. all taxes Prix TTC Prezzi imp. comprese	Preis ohne MWSt. Price excl. VAT Prix hors TVA Prezzi IVA escl.	Preis ohne Steuern Price excl. taxes Prix hors taxes Prezzi imp. escluse
I_1	1980	2,32	2,32	2,32	6,33	6,33	6,33
	1981	2,55	2,55	2,55	10,18	10,18	10,18
418,6 GJ	1982	2,65	2,65	2,65	12,74	12,74	12,74
	1983	3,27	3,27	3,27	6,30	6,30	6,30
	1984	3,43	3,43	3,43	6,62	6,30	6,30
	1985	3,43	3,43	3,43	6,62	6,30	6,30
I_2	1980	2,28	2,28	2,28	5,78	5,78	5,78
	1981	2,47	2,47	2,47	9,25	9,25	9,25
4 186 GJ	1982	2,78	2,78	2,78	11,81	11,81	11,81
200 Tage/days/jours/giorni	1983	3,06	3,06	3,06	5,59	5,59	5,59
	1984	3,17	3,17	3,17	5,87	5,59	5,59
	1985	3,25	3,25	3,25	5,87	5,59	5,59
I_{3-1}	1980	2,83	2,83	2,83			
	1981	2,68	2,68	2,68			
41 860 GJ	1982	2,78	2,78	2,78			
250 Tage/days/jours/giorni	1983	2,89	2,89	2,89			
1 600 h	1984	2,91	2,91	2,91			
	1985	3,08	3,08	3,08			
I_{3-2}	1980	2,83	2,83	2,83			
	1981	2,68	2,68	2,68			
41 860 GJ	1982	2,78	2,78	2,78			
250 Tage/days/ jours/giorni	1983	2,89	2,89	2,89			
4 000 h	1984	2,91	2,91	2,91			
	1985	3,08	3,08	3,08			
I_{4-1}	1980	2,45	2,45	2,45			
	1981	2,68	2,68	2,68			
418 600 GJ	1982	2,78	2,78	2,78			
250 Tage/days/jours/giorni	1983	2,87	2,87	2,87			
4 000 h	1984	2,87	2,87	2,87			
	1985	3,08	3,08	3,08			
I_{4-2}	1980	2,45	2,45	2,45			
	1981	2,68	2,68	2,68			
418 600 GJ	1982	2,78	2,78	2,78			
330 Tage/days/jours/giorni	1983	2,87	2,87	2,87			
8 000 h	1984	2,87	2,87	2,87			
	1985	3,08	3,08	3,08			
I_5	1980	1,89	1,89	1,89			
	1981	2,32	2,32	2,32			
4 186 000 GJ	1982	2,42	2,42	2,42			
330 Tage/days/jours/giorni	1983	2,51	2,51	2,51			
8 000 h	1984	2,51	2,51	2,51			
	1985	2,71	2,71	2,71			

* Naturgas
Natural gas

\+ Ortsgas
Gasworks gas

* Gaz naturel
Gas naturale

\+ Gaz d'usines
Gas di officina

TABELLE FÜR DIE UMRECHNUNG DES KAUFKRAFTSTANDARDS (KKS)

TABLE DE CONVERSION DU STANDARD DE POUVOIR D'ACHAT (SPA)

CONVERSION TABLE FOR THE PURCHASING POWER STANDARD (PPS)

TABELLA DI CONVERSIONE DELLO STANDARD DI POTERE D'ACQUISTO (SPA)

1 KKS = 1 PPS = 1 SPA =

	BR Deutschland DM	France FF	Italia LIT	Nederland HFL	België Belgique BFR	Luxembourg LFR	United Kingdom UKL	Ireland IRL	Danmark DKR
1980 (1)	2,64	5,85	847	2,82	40,8	38,6	0,543	0,514	8,28
1981	2,49	5,93	906	2,69	38,9	38,2	0,548	0,545	8,24
1982	2,37	6,06	970	2,59	37,8	37,7	0,533	0,570	8,33
1983	2,27	6,17	1036	2,45	37,2	37,7	0,520	0,585	8,36
1984 /85 (2)	2,22	6,29	1086	2,38	37,7	38,4	0,519	0,602	8,37

(1) ausgewähltes Basisjahr/ chosen reference year
année de base choisie / anno di referenza scelto

(2) vorläufig/provisional
provisoire/provvisorio

TABELLE FÜR DIE UMRECHNUNG DER EUROPÄISCHEN WÄHRUNGSEINHEIT (ECU)

TABLE DE CONVERSION DE L'UNITE MONETAIRE EUROPEENNE (ECU)

CONVERSION TABLE FOR THE EUROPEAN CURRENCY UNIT (ECU)

TABELLA DI CONVERSIONE DELL'UNITA MONETARIA EUROPEA (ECU)

1 ECU = 1 ECU =

Januar/January Janvier/Gennaio	BR Deutschland DM	France FF	Italia LIT	Nederland HFL	België Belgique BFR	Luxembourg LFR	United Kingdom UKL	Ireland IRL	Danmark DKR
1980	2,4885	5,8302	1161,3	2,7474	40,4260	40,4260	0,6373	0,6734	7,7713
1981	2,5806	5,9657	1225,8	2,8047	41,4920	41,4920	0,5346	0,6919	7,9395
1982	2,4442	6,2102	1308,9	2,6790	41,6068	41,6068	0,5653	0,6922	7,9886
1983	2,2967	6,5095	1320,9	2,5287	45,0461	45,0461	0,6103	0,6909	8,0884
1984	2,2580	6,9034	1371,2	2,5379	46,0675	46,0675	0,5706	0,7288	8,1769
1985	2,2242	6,8083	1367,8	2,5126	44,5188	44,5188	0,6220	0,7140	7,9483

PREISINDICES DES BIP
GDP PRICE INDICES

INDICES DE PRIX DU PIB
INDICI DEI PREZZI DEL PIL

1980 = 100

	BR Deutschland	France	Italia	Nederland	België Belgique	Luxembourg	United Kingdom	Ireland	Danmark
1981	104,1	112,1	118,3	105,5	105,3	107,9	111,7	117,1	110,1
1982	108,9	126,1	139,5	111,9	112,7	117,1	119,6	135,0	122,5
1983	112,4	138,4	160,5	114,0	119,4	127,0	125,7	149,3	132,5
1984 (1)	114,6	148,8	176,7	116,9	126,0	136,1	130,7	160,6	138,5
1985 (1)	117,1	157,1	190,7	118,7	132,3	142,8	137,2	169,8	144,2

(1) vorläufig / provisional / provisoire / provvisorio

GASPREISE FUER HAUSHALTE

GAS PRICES FOR HOUSEHOLDS

PRIX DU GAZ POUR USAGES DOMESTIQUES

PREZZI DEL GAS PER USI DOMESTICI

Preisbereinigt KKS/GJ
Deflated PPS/GJ

EUR 9

SPA déflaté/GJ
SPA deflazionato/GJ

Januar Janvier	January Gennaio	DUSSELDORF •	PARIS •	MILANO +	ROTTERDAM •	BRUXELLES •	LUXEMBOURG •	LONDON •	DUBLIN +	KØBENHAVN +
D_1	1980	11,25	11,60	10,15	5,85	10,25	10,61	5,52	15,82	14,05
	1981	13,09	11,70	10,34	6,78	11,56	11,27	6,25	20,30	15,32
	1982	16,26	12,31	9,39	7,13	12,72	13,09	8,48	21,30	14,62
8,37 GJ	1983	.	12,39	12,34	7,68	12,95	12,27	9,95	19,21	15,36
	1984	14,95	12,36	12,39	7,86	13,00	11,66	9,40	18,75	15,56
	1985	14,63	13,47	12,82	8,05	13,06	12,41	8,95	17,74	14,30
D_2	1980	8,53	9,88	9,53	4,65	9,40	9,19	5,25	15,60	13,43
	1981	9,94	10,08	10,03	5,64	10,67	9,82	6,22	20,14	14,74
	1982	12,34	10,71	9,13	6,06	11,88	11,28	6,91	21,16	14,10
16,74 GJ	1983	.	10,83	11,31	6,43	12,14	10,57	8,12	16,18	15,70
	1984	11,19	10,85	11,31	6,63	12,23	10,03	8,03	15,80	14,68
	1985	10,95	11,82	11,63	6,84	12,30	10,63	7,65	14,94	13,57
D_3	1980	5,46	6,52	9,02	3,70	4,89	3,88	3,44	12,57	10,64
	1981	6,81	6,84	9,78	4,73	6,16	5,31	3,90	17,11	11,77
	1982	8,11	7,51	8,92	5,21	7,82	7,20	4,56	18,53	11,44
83,7 GJ	1983	.	7,66	10,50	5,43	8,23	6,76	5,35	9,92	12,37
	1984	7,14	7,67	11,08	5,65	9,48	6,45	5,37	9,68	11,48
	1985	7,40	8,25	10,34	5,87	8,62	7,22	5,11	9,15	10,06
D_{3b}	1980	4,87	5,80	9,02	3,62	4,61	3,70	3,26	12,43	10,49
	1981	6,24	6,19	9,76	4,66	5,85	5,04	3,73	16,98	11,63
	1982	7,64	6,96	8,90	5,13	7,52	6,80	4,36	18,42	11,31
125,6 GJ	1983	.	7,08	10,42	5,35	7,94	6,43	5,11	9,20	12,24
	1984	6,69	7,14	10,79	5,56	8,20	6,08	5,14	8,98	11,35
	1985	6,96	7,72	10,19	5,78	8,35	6,82	4,90	8,49	9,92
D_4	1980	4,09	4,71	8,91	3,53	3,70	3,25			10,24
	1981	5,76	4,99	9,75	4,57	4,87	4,37			11,39
	1982	6,75	5,87	8,89	5,06	6,55	5,90			11,09
1 047 GJ	1983	.	5,97	10,42	5,25	7,01	5,58			12,02
	1984	6,00	6,07	10,36	5,47	7,31	5,31			11,12
	1985	6,28	6,76	10,20	5,69	7,48	5,96			9,73

• Naturgas
Natural gas

+ Ortsgas
Gasworks gas

• Gaz naturel
Gas naturale

+ Gaz d'usines
Gas di officiana

EUR 9

ECU/GJ

Januar Janvier	January Gennaio	DUSSELDORF •	PARIS •	MILANO +	ROTTERDAM •	BRUXELLES •	LUXEMBOURG •	LONDON •	DUBLIN +	KØBENHAVN +
D_1	1980	11,93	11,64	7,40	6,01	10,34	10,12	4,71	12,07	14,97
	1981	13,94	12,87	8,45	7,19	11,97	11,31	7,09	17,66	17,59
	1982	19,13	14,62	8,48	8,40	14,06	14,22	9,75	21,35	18,57
8,37 GJ	1983	.	15,41	12,70	9,76	14,01	13,36	11,13	21,33	22,18
	1984	20,04	15,59	13,53	10,21	14,51	13,30	11,69	21,24	21,82
	1985	20,34	18,19	15,14	10,72	15,84	15,36	10,72	21,68	21,48
D_2	1980	9,05	9,91	6,95	4,78	9,48	8,78	4,47	11,91	14,31
	1981	11,18	11,08	8,20	5,98	11,05	9,85	7,05	17,52	16,93
	1982	15,44	12,72	8,24	7,14	13,13	12,26	7,94	21,21	17,91
16,74 GJ	1983		13,37	11,65	8,17	13,13	11,50	9,08	17,98	21,30
	1984	14,99	13,68	12,34	8,61	13,64	11,44	9,99	17,89	20,87
	1985	15,22	15,95	13,73	9,11	14,91	13,1.	9,16	18,26	20,38
D_3	1980	5,79	6,54	6,58	3,79	4,94	3,71	2,93	9,59	11,34
	1981	7,25	7,52	8,00	5,02	6,38	5,33	4,45	14,89	13,52
	1982	9,54	8,99	8,05	6,13	8,65	7,82	5,24	18,58	14,52
83,7 GJ	1983	.	9,52	10,73	6,90	8,90	7,36	5,98	11,01	16,77
	1984	9,57	9,61	12,10	7,33	9,46	7,35	6,68	10,96	16,10
	1985	10,29	11,13	12,21	7,82	10,46	8,94	6,13	11,19	15,11
D_{3b}	1980	5,16	5,82	6,58	3,71	4,65	3,13	2,78	9,49	11,18
	1981	6,64	6,81	7,98	4,94	6,06	5,06	4,23	14,77	13,36
	1982	8,99	8,27	8,03	6,05	8,31	7,39	5,01	18,46	14,36
125,6 GJ	1983	.	8,81	10,73	6,80	8,58	7,00	5,72	10,22	16,60
	1984	8,96	9,00	11,78	7,23	9,15	6,93	6,40	10,17	15,92
	1985	9,68	10,42	12,03	7,71	10,12	8,44	5,87	10,38	14,91
D_4	1980	4,34	4,73	6,50	3,62	3,75	3,10			10,91
	1981	6,13	5,49	7,97	4,85	5,04	4,38			13,08
	1982	7,94	6,97	8,03	5,96	7,24	6,41			14,09
1 047 GJ	1983	.	7,43	10,72	6,68	7,58	6,07			16,30
	1984	8,03	7,66	11,30	7,11	8,15	6,06			15,60
	1985	8,73	9,12	12,04	7,59	9,07	7,38			14,62

* Naturgas
Natural gas
\+ Ortsgas
Gasworks gas

* Gaz naturel
Gas naturale
\+ Gaz d'usines
Gas di officiana

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Deflated PPS/GJ

EUR 9

SPA déflaté/GJ
SPA deflazionato/GJ

Januar Janvier / January Gennaio		DUSSELDORF *	PARIS *	MILANO * +	ROTTERDAM *	BRUXELLES *	LUXEMBOURG *	LONDON *	DUBLIN +	KØBENHAVN +
I_1	1980	4,89	4,38	7,60 +	2,97	3,99	3,28	4,27	12,32	9,80
	1981	6,23	4,63	8,50	3,86	4,69	4,42	4,20	16,91	10,70
418,6 GJ	1982	7,53	5,37	7,78	4,27	6,08	6,47	4,08	18,36	10,32
	1983	.	5,40	9,39	4,43	6,45	5,64	4,79	8,21	11,31
	1984	6,44	5,47	9,38	4,58	6,69	5,32	4,83	7,63	10,62
	1985	6,30	5,83	9,41	4,76	6,82	5,97	4,60	7,22	9,48
I_2	1980	3,99	3,82	7,58 +	2,93	3,33	2,75	4,20	11,25	8,75
	1981	4,67	4,05	8,45	3,82	4,04	4,06	4,07	15,37	9,57
4186 GJ	1982	6,17	4,81	7,74	4,23	5,45	5,73	4,28	17,02	9,30
	1983	.	4,85	9,24	4,39	5,84	5,43	4,48	7,28	10,04
200 Tage/days/	1984	5,49	4,95	9,22	4,54	6,10	5,13	4,47	6,77	9,32
jours/giorni	1985	5,38	5,07	9,06	4,73	6,25	5,83	4,36	6,40	8,17
I_{3-1}	1980	3,67	3,27	4,00 *	2,69	3,25	2,44	5,21		
	1981	4,32	3,51	5,15	3,28	3,81	3,78	4,42		
41 860 GJ	1982	5,74	4,09	5,55	4,16	5,15	5,43	4,28		
	1983	.	4,08	5,33	3,98	5,32	5,15	4,23		
200 Tage/days/	1984	5,14	4,05	5,33	4,13	5,54	4,87	4,10		
jours/giorni	1985	5,03	4,59	6,24	4,46	5,71	5,58	4,13		
I_{3-2}	1980	3,52	3,18	4,00 *	2,69	2,70	2,23	5,21		
	1981	4,18	3,41	5,15	3,28	3,27	3,49	4,42		
41 860 GJ	1982	5,54	3,99	5,55	4,16	4,61	5,06	4,28		
	1983	.	3,97	5,33	3,98	4,80	4,80	4,23		
250 Tage/days/	1984	4,95	3,94	5,33	4,13	5,03	4,54	4,10		
jours/giorni	1985	4,85	4,49	6,10	4,46	5,21	5,20	4,13		
I_{4-1}	1980	3,50	2,89	3,91 *	2,60	2,70		4,51		
	1981	4,16	3,12	4,94	3,15	3,27		4,42		
418 600 GJ	1982	5,51	3,69	5,33	3,94	4,61		4,28		
	1983	.	3,67	5,11	3,71	4,80		4,20		
250 Tage/days/	1984	4,93	3,67	5,06	3,86	5,03		4,04		
jours/giorni	1985	4,82	4,19	5,80	4,21	5,21		4,13		
I_{4-2}	1980	3,35	2,82	3,91 *	2,60	2,51		4,51		
	1981	4,02	3,05	4,94	3,15	3,10		4,42		
418 600 GJ	1982	5,31	3,59	5,33	3,94	4,44		4,28		
	1983	3.59	3,59	5,11	3,71	4,62		4,20		
330 Tage/days/	1984	4,75	3,59	5,06	3,86	4,86		4,04		
jours/giorni	1985	4,65	4,12	5,66	4,21	5,04		4,13		
I_5	1980	.	2,80	3,78 *	2,45	2,45		3,48		
	1981	.	3,04	4,67	3,00	3,04		3,83		
4186 000 GJ	1982	.	3,58	5,04	3,72	4,38		3,73		
	1983	.	3,56	4,83	3,50	4,56		3,68		
330 Tage/days/	1984	4,75	3,56	4,78	3,63	4,81		3,54		
jours/giorni	1985	4,65	4,09	5,34	3,97	4,99		3,64		

* Naturgas
Natural gas

\+ Ortsgas
Gasworks gas

(1) Ohne Mehrwertsteuer
Excluding VAT
Hors TVA
Senza IVA

* Gaz naturel
Gas naturale

\+ Gaz d'usines
Gas di officiana

EUR 9

ECU/GJ

Januar / Janvier / January / Gennaio		DÜSSELDORF *	PARIS *	MILANO *+	ROTTERDAM *	BRUXELLES *	LUXEMBOURG *	LONDON *	DUBLIN +	KØBENHAVN +
				+						
I_1	1980	5,18	4,40	5,55	3,05	4,03	3,13	3,64	9,40	10,44
	1981	6,64	5,09	6,94	4,09	4,86	4,44	4,77	14,71	12,29
418,6 GJ	1982	8,85	6,38	7,02	5,02	6,72	6,48	4,69	18,41	13,10
	1983	.	6,72	9,67	5,63	6,98	6,14	5,36	9,12	15,34
	1984	8,62	6,90	10,24	5,95	7,46	6,07	6,01	8,64	14,89
	1985	8,75	7,87	11,11	6,35	8,28	7,39	5,51	8,82	14,24
				+						
I_2	1980	4,24	3,83	5,53	3,01	3,36	2,62	3,58	8,58	9,32
	1981	4,97	4,46	6,91	4,05	4,18	4,08	4,62	13,37	10,99
4186 GJ	1982	7,25	5,71	6,99	4,99	6,02	6,23	4,92	17,06	11,81
	1983	.	6,04	9,51	5,58	6,32	5,91	5,01	8,09	13,61
200 Tage/days/	1984	7,36	6,24	10,06	5,89	6,81	5,85	5,56	7,67	13,08
jours/giorni	1985	7,47	6,84	10,70	6,30	7,58	7,22	5,23	7,83	12,27
				*						
I_{3-1}	1980	3,90	3,28	3,32	2,77	3,28	2,33	4,44		
	1981	4,60	3,85	4,21	3,48	3,95	3,78	5,01		
41 860 GJ	1982	6,75	4,85	5,01	4,90	5,69	5,90	4,92		
	1983	.	5,06	5,49	5,06	5,75	5,60	4,74		
200 Tage/days/	1984	6,89	5,10	5,82	5,37	6,18	5,55	5,10		
jours/giorni	1985	6,99	6,20	7,36	5,94	6,92	6,90	4,95		
				*						
I_{3-2}	1980	3,74	3,19	2,91	2,77	2,72	2,13	4,44		
	1981	4,46	3,75	4,21	3,48	3,39	3,50	5,01		
41 860 GJ	1982	6,51	4,73	5,01	4,90	5,10	5,50	4,92		
	1983	.	4,94	5,49	5,06	5,19	5,23	4,74		
250 Tage/days/	1984	6,64	4,98	5,82	5,37	5,61	5,18	5,10		
jours/giorni	1985	6,74	6,06	7,20	5,94	6,32	6,44	4,95		
				*						
I_{4-1}	1980	3,71	2,90	2,85	2,67	2,72		3,84		
	1981	4,43	3,43	4,04	3,34	3,39		5,01		
418 600 GJ	1982	6,48	4,38	4,81	4,64	5,10		4,92		
	1983	.	4,56	5,26	4,72	5,19		4,70		
250 Tage/days/	1984	6,60	4,62	5,53	5,02	5,61		5,03		
jours/giorni	1985	6,70	5,65	6,85	5,61	6,32		4,95		
				*						
I_{4-2}	1980	3,56	2,83	2,85	2,52	2,54		3,84		
	1981	4,28	3,35	4,04	3,18	3,21		5,01		
418 600 GJ	1982	6,25	4,28	4,81	4,38	4,90		4,92		
	1983	.	4,47	5,26	4,44	4,99		4,70		
330 Tage/days/	1984	6,36	4,53	5,53	5,02	5,42		5,03		
jours/giorni	1985	6,46	5,55	6,69	5,61	6,11		4,95		
				*						
I_5	1980	.	2,80	2,76	2,51	2,47		2,97		
	1981	.	3,32	3,82	3,18	3,14		4,34		
4186 000 GJ	1982	.	4,25	4,55	4,38	4,84		4,28		
	1983	.	4,43	4,97	4,44	4,93		4,11		
330 Tage/days/	1984	6,36	4,49	5,22	4,72	5,36		4,42		
jours/giorni	1985	6,46	5,51	6,31	5,29	6,05		4,36		

* Naturgas
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Gasworks gas

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