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PRICES SYSTEM GAS

Council Directive 90/377/EEC of 29 June 1990 lays down a Community procedure to improve the transparency of gas and electricity prices charged to industrial end-users.

In accordance with Article 1.2, this note sets out a summary of the price systems (industrial sector) in force as at 1 July 1993.

BELGIUM

There are two types of tariffs for industrial uses which depend on the consumption of the customer.

Non-domestic tariffs are designed for those industries which use less than 33 500 GJ/year and other non-domestic customers. They are linked to the same indexing system, Iga and Igd, as domestic uses and apply in the whole country.

C.T.	Tariff	GJ/year	Fixed rental (BFR)	Commodity rate cent./MJ
I ₁	ND1	35-527	5 737 Igd	23.8678 Iga + 7.2409 Igd
	ND2	527-3 517	14 722 Igd	23.8678 Iga + 5.5359 Igd
I ₂	ND3	> 3 517	50 732 Igd + 4.377 Igd/MJ ⁽¹⁾	23.8678 Iga + 1.1382 Igd

(1) by megajoule of maximum daily offtake.

Iga reflects the development of the cost of purchasing gas from Distrigaz by the public authorities; the ex-border price of natural gas is the predominant factor.

Igd partially reflects the development of distribution costs; 31% represent wages and salaries and 25% represent materials.

The industrial tariff covers fixed and erasable supplies to industries consuming more than 33 500 GJ per year. It is a national tariff.

For fixed supplies, it is not possible for the supplier of natural gas to make any interruption at all except in the event of force majeure. Erasable supplies can be interrupted in winter between 15 November and 15 March on the initiative of the natural gas supplier after a notification, which is agreed on in advance, has been given. The total number of erasure days per winter period may not exceed 35.

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This tariff comprises:

- a fixed charge of (BFR/month) $(1-R_h) \times 4371 \times RDZ \times S_n \times K$
- a commodity rate of (BFR/GJ) $1.02 \times (G - 61.35) + (76,26 + 6 \times RDZ \times C_{ne}) \times P \times K$

The parameters in these formulae are defined as follows:

- S_n = sum of the "fixed" S_{nf} and "erasable" S_{ne} subscriptions in GJ/h
- R_h = hourly regularity factor assessed in accordance with annual consumption (Q_a) and the sum of subscriptions (S_n); $R_h = Q_a / (8760 \times S_n)$
- C_{ne} = coefficient of non-erasure between 0 and 1 depending on the degree of erasure of supplies
 $C_{ne} = S_{nf}/S_n$
- P = adaptation coefficient for the commodity charge depending on the use which is made of the gas.

Non-specific applications : fixed 1; erasable 0.9
 Specific applications : fixed 1.1; erasable 1

- K = price reducing factor as a function of the monthly offtake and calculated as follows:
 - on the first, second, third, fourth and fifth block of 41 870 GJ: $K=1; 0.99; 0.98; 0.97; 0.96;$
 - on the offtake beyond 209 350 GJ: $K=0.95$

- G = purchase price of the gas at the border in BFR/GJ, valid for the supply month and calculated monthly so as to represent the average price of the various types of gas bought by Distrigaz during the supply month. This cost is monitored by the industrial auditors of the "Comité de Contrôle de l'électricité et du gaz".

RDZ = monthly revision formula based on wage and materials costs.

There is a rental charge for installation which depends on the geographical situation of the customer with respect to the network.

As regards interruptible supplies, i.e. those which can be interrupted at any time on the initiative of the supplier and/or the customer, the gas price is agreed jointly between the two parties.

	Iga	Igd	G	RDZ
07.1993	0.5592	1.2250	99.190	1.519145

DENMARK

The customers on the Danish Gas market are divided into four categories, and the sale of gas to end-users is therefore settled according to four price-schedules:

- The price for small consumers, i.e. for customers with a yearly consumption of less than 300 000 m³,
- The industrial price for industrial and commercial customers with a yearly consumption of more than 300 000 m³,
- The district heating price for supplies to district heating plants and block heating plants with a yearly consumption of more than 300 000 m³,
- The cogeneration price for sales to small cogeneration plants where the gas is used for electricity production.

The first three prices are block-prices, where the average price declines with an increasing yearly consumption. All four price-schedules are linked to oil product prices, and the gas prices are adjusted monthly.

Denmark applies a relatively high energy tax on light heating oil and fuel oil for uses outside the commercial and industrial sectors, i.e. the energy taxes are basically levied on oil products used for residential heating.

Denmark has introduced a CO₂ tax on all energy products, except natural gas, i.e. on oil products, coal and electricity. All users are liable to pay the CO₂ tax, but the rate for industry is only half of the CO₂ tax rate for other sectors.

There is no energy tax or CO₂ tax on natural gas. The gas price is linked to oil product prices including energy taxes on CO₂ tax, when used for residential heating, i.e. consumers, for whom the price for small consumers or the price for district heating applies. These consumers receive a rebate corresponding to the lower level of the CO₂-emission of natural gas.

The industrial price is linked to the prices on oil products excluding the energy tax. The value of the CO₂ tax is only partly included in the gas price.

The cogeneration price is linked to the prices on oil products excluding the energy tax and the CO₂ tax.

GERMANY

Gas price formation in the Federal Republic of Germany

Gas prices in the Federal Republic of Germany take their orientation from competition on the market where gas is seeking the same outlets as other sources of energy. The prices that users pay for gas are negotiated between the supplier and the consumer, each evaluating the contract that is being offered by a set of appropriate criteria.

These criteria include, on the one hand, the prices at which competing sources of energy are being offered and their efficiencies and, on the other hand, the cost that the consumer incurs for the conversion of the energy delivered by the supplier into useful energy.

In the industrial sector, the prices at which major users receive gas are freely negotiated on a case-by-case basis. As these negotiations are guided by the principle of market orientation, gas prices paid by industrial users in the Federal Republic of Germany cannot be determined by standard rates. On the one hand, competition is controlled by the circumstances of each case and, energy, such as heavy fuel oil, gas oil, coal, LPG and electricity are offered, vary for the different regions and the different applications. Market-orientated industrial gas prices vary accordingly.

The two elements of the price represent the differentiated remuneration for the provisions of gas companies.

The customer pays a service charge and thus acquires the right to use gas delivery facilities and services, i.e. ducts, pressure valves, storage facilities, gas meters and the company's supply guarantee. This service charge may be compared to storage and investment costs the individual customer would have to pay for fuel oil. It may also be considered to be an adequate balance of competition created by the price.

Generally unlimited in time, the right to use supply facilities may be limited by special contracts. This special tariff provides low service charges according to the length of supply periods, or no service charge at all for customers in industry with two-way heating equipment suitable for other forms of energy as well, including stored fuel oil.

For the different industrial consumer categories, gas companies throughout the Federal Republic of Germany are confronted with similar competitive environments. In the case of the I₁ through I₃ standard consumers, gas oil is the chief competitor, in the case of the I₄ consumer, gas competes with both gas oil and heavy fuel oil and for I₅ sales, heavy oil is the most important alternative to gas.

The gas prices that are negotiated only reflect market conditions at the time of negotiation. As this situation changes continually, it is necessary to adjust the agreed market-oriented price.

Such adjustment can be achieved by price indexation formulae of the type widely used by the gas industry. Fuel oil price indexation formulae pegging the price of gas to the prices of heavy fuel oil and gas oil are, for example, agreed upon with industrial gas users.

Gas prices are adjusted at agreed regular intervals. Quarterly adjustment on 1 January, 1 April, 1 July and 1 October is frequent. On each adjustment date, the price of gas is modified to reflect average heavy fuel oil and gas oil prices during an earlier reference period.

In the Federal Republic of Germany, the oil product prices included in the price adjustment formulae are the prices published each month by the German Statistical Office.

Apart from firm gas supplies, interruptible supplies are offered to industrial users and to power stations. Interruptible supplies are agreed in a contract negotiated between the gas company and the user. Users opting for these supplies normally operate large boiler plants. Under such a contract, the gas company is entitled to interrupt gas supplies fully or in part, if and when certain agreed criteria are fulfilled. During the duration of the interruption, the user employs another fuel which is often heavy fuel oil. The user therefore needs dual fuel equipment as well appropriate fuel oil storage tankage.

The gas company's right to interrupt supplies may, for instance, be exercised throughout the year or during a limited period of the year or below an agreed average daily temperature.

For similar gas quantities and similar market conditions, interruptible supplies of gas are at present sold at a price which is between 5% and 10% below the price of firm gas, chiefly to account for the extra capital charges and operating expenses incurred by the user to dual fuel equipment.

Natural gas supply is subject to a purchase tax of 15%. When natural gas is used for heating, an additional natural-gas tax is levied at a rate of 0.0036 DM/kWh.

SPAIN

1. Industrial tariffs for supplies of piped natural gas (non-interruptible)

These tariffs are subdivided into the following groups:

1.1 Industrial tariffs for daily contractual consumption of less than 12 500 thermies (tariff "F")

Tariff structure: the structure of these tariffs shall be two-part, comprising two terms, the first of which (fixed charge) shall be fixed and the second (energy charge) dependent on the energy consumed.

Invoices for gas supplied on the basis of these tariffs shall be calculated by applying the following formulae to monthly consumption (expressed in thermal units): $F_1 + F_2 \times Y$; where: F_1 = fixed charge per type of supply; F_2 = unit price of thermie; Y = number of thermie consumed monthly.

Tariff	Type	Fixed charge - PTA/month	Maximum unit price of energy charge PTA/thermie
F_{AP}	High-pressure supplies	21 300	$0.273 + 0.0569 \times F_o + 0.0388 \times G_o$
F_{MP}	Medium-pressure supplies	21 300	$0.573 + 0.0569 \times F_o + 0.0388 \times G_o$

in the above formulae:

F_o is the maximum sale price to the public of Class 1 fuel oil in Pesetas/kilogramme for the reference period.

G_o is the sale price to the public of C-grade diesel oil in Pesetas/litre for the reference period.

1.2 Industrial tariffs for daily contractual consumption exceeding 12 500 thermies

Tariff structure: these tariffs are classified according to industrial uses, the level being A, B, C, D and E.

The structure of each of these tariffs shall be two-part, comprising two charge bands. A price level for natural gas expressed in Pesetas/thermie shall be drawn up for each of these.

The quantity of gas consumed per month up to a total of sixteen times the maximum daily contractual quantity shall be invoiced under the first band of the corresponding tariff, the remainder of monthly consumption being invoiced under the second charge band.

The minimum monthly charge shall be set at fourteen times the maximum daily contractual quantity for each tariff, at the price of the first of the corresponding bands.

Likewise, in order to optimize regulation of the distribution system run by companies supplying natural gas, all consumption by users exceeding 10% of the contractual hourly value shall be invoiced at double the unit price per thermie laid down in the corresponding rate schedule.

The tariff structure for industrial uses covered by tariff levels A, B, C, D and E shall be determined and adjusted according to the prices of Class 1 fuel oil and bulk propane, in accordance with following (PTA/th):

	<u>First band</u>	<u>Second band</u>
A :	0.1005 x Fo	0.0958 x Fo
B :	0.1062 x Fo	0.1011 x Fo
C :	0.2508 + 0.1128 x Fo	0.2388 + 0.1074 x Fo
D :	0.3797 + 0.1128 x Fo	0.3616 + 0.1074 x Fo
E :	0.0550 x P	0.0523 x P

P is the sale price to the public of commercial bulk propane applicable to bulk orders in Pesetas/kilogram for the reference period.

1.3 Tariffs for special uses

Tariff G: supplies of natural gas for co-generation of electrical and thermal energy.

Tariff H: supplies of natural gas for use as a raw material.

2. Industrial tariffs for supplies of piped natural gas (interruptible supply, tariff I)

This tariff shall not apply to consumption of less than 10 million thermies per year or 30 000 therms per day.

For this tariff, a single maximum price level is laid down in Pesetas/thermie ("I"), which shall be applicable to the total consumption of the industrial user: $I = 0.0958 \times Fo$

3. Distance surcharge

Users charged according to the non-interruptible industrial tariffs A, B, C, D, E, G, H and interruptible-type industrial tariffs (I) shall, in addition to standard invoices, be required to pay a surcharge that shall be directly proportional to the distance between the user's control and metering room and the main conduit or distribution circuit, the exact amount of this being dependent on the daily contractual quantity.

FRANCE

1. General situation in the gas industry

The gas industry in France is constituted as follows:

- a company which imports natural gas, GDF;
- a production company (SNEAP: Société nationale Elf Aquitaine Production);
- Three companies providing transport services and direct sale to industry: GDF, CFM (Compagnie Française du Méthane), SNGSO (Société Nationale de Gaz du Sud-ouest);
- a distribution company (outside regies): GDF

2. Taxation

Gas sales are subject to value added tax, which may be recovered by registered industrial and tertiary-sector customers.

In the case of domestic customers, VAT is applied at 5.5% on standing charges and at 18.6% on commodity rates. The VAT rate is fixed at 18.6% for all tariffs applying to other customer categories.

The distinction between VAT rates on standing charges and commodity rates for domestic customers was introduced in October 1988. The rate of 18.6% has been unchanged since July 1982.

Furthermore, a special tax on the use of natural gas as an industrial fuel (TICGN: Taxe Intérieure à la Consommation de Gaz Naturel) was instituted on 1 January 1986. On July 1 1993 this tax was levied at the rate of 666 FF/1 000 kWh GCV. A second tax on natural gas consumption was established on January 11, 1993 to finance the IFP (Institut Français du Pétrole). The basis and application conditions of the IFP tax are similar to those of TICGN. Its rate is 0.40 FF/1 000 kWh PCS. Exemptions apply to gas used to heat living accommodation or as a raw material. TICGN is applied when annual consumption exceeds 5 GWh/year, with an abatement of 400 000 kWh/month.

3. Tariffs for domestic and tertiary-sector customers and for small-scale industry

Tariffs for these customers comprise:

- an annual standing charge, and
- a rate or rates per kWh consumed.

There are six tariffs, which vary according to the customer's annual consumption and in some cases the time of year:

- the basic tariff for annual consumption below 1 000 kWh (normally for cooking),
- tariff B0 for annual consumption between 1 000 and 7 000 kWh (normally cooking and hot water),
- tariff B1 between 7 000 and 30 000 kWh per annum (individual heating, hot water and/or cooking),
- tariff B2I from 30 000 to between 150 000 and 350 000 kWh per annum (collective provision of heating and/or hot water),
- tariff B2S for consumption in excess 150 000 - 350 000 kWh per annum. Tariff B2S is seasonally adjusted: winter consumption (November to March) is charged at a higher rate than summer consumption (April to October),
- the contingency tariff applying to back-up or stand-by supplies for other energy sources (ratio annual quantities/daily offtake less than 70 days).

For customers whose consumption lies between 150 000 and 350 000 kWh, the choice of tariff B2I or B2S depends on the pattern of consumption and each case has to be calculated separately.

Standing charges are standardized throughout the public distribution network of GDF, as are the commodity rates of the basic and B0 tariffs. The commodity rates for tariffs B1, B2I and B2S are subdivided into six levels depending on the cost of delivering the gas to the public distribution network.

4. Tariffs for large industrial customers

Large industrial customers (consumption above 5 GWh/year) are subject to tariffs with a more complex structure, known as subscription tariffs, for gas used for industrial purposes.

These subscription tariffs are made up of four components:

- an identical annual subscription charge for every point on the grid;
- an annual standing charge based on the daily winter demand which the customer has requested; payment of this standing charge "entitles" the customer to this daily offtake throughout the year;
- a reduced annual standing charge based on any additional daily demand which the customer has requested for the seven summer months only;
- Commodity charges which differ according to season (winter/summer) and block of consumption:
 - . block 1: up to 24 million kWh/year,
 - . block 2: above 24 million kWh/year.

The charges in summer are lower than those in winter.

GSO tariffs are made up of an annual subscription, two standing charge blocks, commodity charges which differ according to season (winter/summer) and of one block of consumption. There is no reduced annual standing charge.

These tariffs have two versions corresponding to the type of network to which the customer's installations are connected, namely the SRS tariff for installations connected to the public distribution network and the STS tariff for installations connected directly to the GDF transmission grid, S tariff for installations connected directly to the CFM transmission grid and B2 tariff for installations connected directly to the GSO transmission grid.

A single tariff is applied to the major interconnected transmission routes linking the country's sources of gas; tariffs (excluding subscription charges) for the minor routes are obtained by adding the charges specific to each one to this tariff (system of tolls). SRS tariffs are calculated from STS tariffs by adding a toll for transfer via the public distribution network.

These tariffs are subject to supply constraints and market conditions: there is basically no obligation to supply gas at these tariffs.

Contracts are concluded for a three-year period.

5. Special contracts

The gas companies may ask its large customers (those using more than 10 GWh/year) if it may purchase from them the option of interrupting supplies. Under this arrangement customers undertake to cease their consumption of gas at GDF's request. The period of notice before supplies are interrupted is fixed contractually, varying from a few hours to fifteen days. The GDF may use this option when there is a supply crisis or at times of peak demand, customer notice permitting. The length of time for they which may be interrupted is not fixed.

Customers participating in this arrangement must therefore be able to switch over readily to an alternative source of energy and must therefore maintain back-up equipment in working order. Customers must also undertake to consume at least 80% of the annual quantities stipulated in the contract.

The gas companies rewards customers offering the option of interruptibility through flat-rate rebates when an alternative source of energy is domestic heating oil, and through guaranteed prices for heavy fuel oil when emergency use of this has to be made.

6. Price regulation

Tariffs are a matter of public record: if there is any change to existing rates, a new price list must be registered.

The tariffs for the public distribution network are regulated: the average rate of change is set by order for the Ministry of Finance.

Changes in prices for large industrial customers are partially unregulated: the transport company registers price lists with the Ministry of Finance, which has the right to oppose them.

In conjunction with the regulatory arrangements, GDF and the State have concluded a contract defining their relationship for the period 1991 to 1993. Under this contract the GDF undertakes to make productivity gains and to pass some of the benefits on to domestic customers. The State, for its part, undertakes to permit the GDF to have the necessary tariff rates to reduce its debt.

GDF's prices vary according to supply costs and inflation. The cost of raw materials assumes greater importance with large industrial customers than it does with domestic customers, who are more expensive in terms of investment and management costs.

IRELAND

- Standard Industrial/ Commercial tariff :

This tariff consists of four reducing rate blocks

- * 0 - 36 000 kWh / year
- * 36 001 - 90 000 kWh / year
- * 90 001 - 180 000 kWh / year
- * > 180 000 kWh / year

and a Standing Charge.

- Demand & Commodity Tariff No 1

This tariff is generally suitable for customers using between 450 000 and 2 400 000 kWh a year. It consists of an annual Standing Charge, with a single flat rate for all gas used.

- Demand & Commodity Tariff No 2

This tariff is generally suitable for customers using more than 2 400 000 kWh a year. It consists of an annual Standing Charge, with a single flat rate for all gas used.

The most appropriate tariff for each customer depends on the level of gas usage and also on the pattern of consumption over the year.

VAT is charged at the rate of 12.5 % on all prices: this is reclaimed by industrial / commercial customers.

ITALY

The tariff structure is based on agreements between the national methane gas company, SNAM, and the industrial associations (CONFINDUSTRIA and CONFAPI) and is applied nationally without distinction to all sectors of production and regardless of the type of supply network (transport or urban distribution) to which users are connected. Industrial users connected to urban distribution networks are subject to the same conditions as applied by SNAM for direct use if the annual offtake exceeds 200 000 m³. The current tariff structure stipulates that users with offtakes below this figure should be generally regarded as domestic users, with end tariffs officially fixed in accordance with a special methodology. The tariff is valid until December 31, 1993.

Continuous supplies:

This tariff for continuous supplies includes a connection charge, a fixed charge linked to the daily production made available by SNAM and a variable charge related to the quantities supplied.

a) Connection charge: LIT 500 000 per month (but reduced by LIT 200 000 per month from 1 July 1991 to 31 December 1991 and by LIT 100 000 per month from 1 January 1992 to 30 June 1992).

b) Fixed charge (TF): Calculated using the formula: $TF = Ca \times I$ where:

Ca = demand charge, expressed in Lire per month for each contracted daily cubic metre. The demand charge Ca is adjusted every six months (1 January and 1 July) in accordance with the trends in the indices of the agreed hourly wages of industrial workers (60% of the calculation) and the wholesale prices of non-agricultural products (40%).

I = user's daily demand (m³/day); the fixed charge is increased if daily offtakes exceed the contracted demand by more than 11-15% (depending on the size of the user).

c) Variable charge (TP): the unit value of the variable charge (TP) is calculated using the formula: $TP = Ba \times Ks \times S$ where:

Ba = base value of the variable charge (LIT/m³).

Ks = average band coefficient calculated on the basis of the following coefficients: (from 1 to 0.85).

S = coefficient to take account of seasonal reductions: 0.94 for offtakes from April to September inclusive and 1.00 for the rest of the year.

The following arrangements apply to offtakes by establishments owned by the same company and involved in similar production:

1. Single connection charge (applied to the establishment with the greatest offtake);
2. Reduction (from 0.5% to 2%) of amounts charged according to the number of establishments involved.

A reduction is also available to consumers whose monthly offtakes are constant throughout the year. This reduction may be as much as 2.5% of the annual bill.

Lastly, at the end of the calendar year consumers who have consistently complied with the conditions of their contracts are accorded a reduction of 1.5% of the total bill for the offtake of the previous 12 months.

The above tariff is applied to almost all users. Consumers with very irregular offtakes are eligible for two other tariff scales (low consumption and one-part tariff) which are better suited to their specific requirements.

Interruptible supplies:

There are two tariff scales for interruptible supplies. Eligibility depends on the duration of the maximum interruption in each calendar year.

"Short" interruptibility: maximum interruption, 20 days/year

"Long" interruptibility : maximum interruption, 90 days/year

Interruptible supplies are intended for consumers with installations using heavy fuel oil and with a certain minimum annual offtake (1 000 000 m³ for "short" interruptibility and 2 000 000 m³ for "long" interruptibility).

The price of natural gas is calculated as follows:

$P = 0.875 \times (121.124 \times IM + M) \times Sm \times Kstag \times (1 + P.R./1200) \times Reg$ where:

P = price of gas in LIT/m³

121.124 = 1986 value in LIT/kg of ATZnaz

IM = $(0.8 \times ATZNAZ/ATZNAZo + 0.2 \times ATZEST/ATZESTo)$ where ATNAZ and ATZEST are the price of high-sulphur heavy fuel oil as indicated for the two-part tariff for continuous supplies, both in relation to the same month of natural gas offtake; ATZNAZo = 121.124 LIT/kg (1986 value of ATZNAZ); ATZESTo = 110.664 LIT/kg (1986 value of ATZEST)

M = surcharge which varies according to the type of interruptibility ("long" or "short") and the location of consumer's establishment.

SM = average band coefficient, which varies according to the type of contract:
"long" interruptibility: (from 1 to 0.98)
"short" interruptibility: (from 1 to 0.96)

Kstag = coefficient based on the seasonal reduction: 0.98 for offtakes from April to September inclusive and 1.00 for the rest of the year.

P.R. = value in percent of the bank prime rate applicable in each month; used to take account of the time lag between consumption and payment of fuel oil and natural gas.

At the end of each calendar year the consumers who have consistently complied with the conditions of their contracts are accorded a reduction of 1.25% on the average price for the annual supply of gas.

Tax:

Natural gas for industrial use is subject to a consumption tax of LIT 20/m³. Exemption is granted in the case of use for the generation of electricity and internal use within refineries and installations where hydrocarbons are converted into chemicals.

A new price system was established from 1 January 1994 onwards (Agreement signed on 27 January 1994).

LUXEMBOURG

Under a new regulation which came into force on 1 January 1993, tariffs are adjusted quarterly in line with the forecast purchase price of natural gas in the next quarter.

The useful output of installations is expressed in units of 5 kilowatts (kW).

Installations whose total installed capacity is equal to or greater than 1 000 kW must be equipped with natural gas/gasoil combination burners and a system which permits the latter to be switched by remote control.

The general tariff (TG) is automatically applied unless the consumer opts for a different tariff.

The "heating", "industrial" and "cogeneration" tariffs comprise the following:

- * a fixed monthly charge for each full and partial 5 kW-unit of installed capacity;
- * a charge for each cubic metre of gas consumed;
- * a charge for the hire of the meter.

The heating tariff (TC) is an all-in tariff which is quoted on invoices for gas consumed by heating installations. Tariff TC1 is applied if the useful output of the installations is less than 150 kW, and tariff TC2 if it is more than 150 kW.

The industrial tariff (TI) is applied in respect of gas used to power the industrial, crafts and commercial sectors. Tariff TI1 is applied if the total useful output of the installations is less than 150 kW, and tariff TI2 if it is more than 150 kW.

The cogeneration tariff (TCG) is applied to cogeneration installations producing electricity and heat for heating purposes.

Off-peak tariffs, THP and SPOT, are applied subject to contracts (which may be terminated without advance notice at the end of each month) for the supply of gas in off-peak periods (hours and days), and are available to installations equipped with combination burners.

The installations must be equipped with a remote-control system which permits the gasworks to switch them between gas and gas oil in the case of THP, and between gas and fuel oil in the case of SPOT.

The tariffs comprise a monthly basic rate equal to 1/120 of the effective cost to the supply station of 1 cubic metre of gas, as laid down per subscriber per month by the Municipal Executive, subject to a lower limit equal to the purchase price of 1 cubic metre of gas plus 50 centimes.

Monthly rates for the hire of meters:

- diaphragm meters: FL 25 - FL 970;
- fan wheel meters or rotary piston meters: FL 700 - FL 3 000.

NETHERLANDS

Pursuant to the provisions of the Agreement, the prices stated against a, b, c, d, and e below shall be applicable successively in any year with effect from 1 January 1990.

Zone	Offtake in m ³	Price in guilder cents per m ³ supplied
a.	0 - 170 000	(G:500) x 37.2 - 2.3 plus a standing charge of HFL 69 per annum
b.	170 000 - 10 ⁶	(P:500) x 38.2 + 4.6
c.	10 ⁶ - 10.10 ⁶	(P:500) x 38.2 + 1.8
d.	10.10 ⁶ - 50.10 ⁶	(P:500) x 38.2 + 0.8
e.	> 50.10 ⁶	(P:500) x 36.3 + 1.25

G is understood to mean: the value, averaged over the six months before the half-year for which the price applies, of gas oil excise duty, fuel storage surcharge (COVA surcharge and trade and transport surcharges). This value shall be the arithmetic mean of the high and low monthly quotations for gas oil published in Platt's oilgram Price Report in US dollars per tonne under "Barges FOB Rotterdam", translated into Dutch guilders per tonne. This rate rounded off to four decimal places as published by ABN-Bank for the relevant period and shall be rounded off to full guilder cents.

P is understood to mean: the value, average over the six months immediately preceding the quarter for which the price applies, of fuel oil with a sulphur content of 1.0% by weight, plus excise duty and trade and transport surcharges. This value shall be the arithmetic mean of the high and low monthly quotations for fuel oil with a sulphur content of 1 % by weight as published in Platt's Oilgram Price Report in US dollars per tonne under "Barges FOB Rotterdam", translated into Dutch guilders per tonne. This rate rounded off to four decimal places as published by ANB-Bank for the relevant period and shall be rounded off to full guilder cents.

The results of the multiplication by factor G or P shall be rounded off three decimal places. Price adjustments for band a) exceed 3 guilder cents/m³ for any half year. The environmental levy on natural gas shall be added to the price per m³.

If in any year the offtake exceeds 1 million m³ and the operation period (B) in any year is less than 150 days but more than 100 days, the customer shall be charged compensation over and above the price per m³ offtake, as follows:

- a) $(1-B/150)$ guilder cents per m³, rounded off to three decimal places;
- b) 0.27 guilder cents for each m³ by which the offtake exceeds 1 million m³ per annum. This amount shall be increased by 0.26 guilder cents for each m³ by which the offtake exceeds 8.8 million m³ in that year.

The lower of the amounts given by a and b above shall be charged to the customer by the supplier. However, if the operating period is less than 100 days, the compensation shall be calculated as under a above.

A discount of 0.75 guilder cents on the price m³ offtake shall be given in respect of gas supplied within the provinces of Groningen, Friesland and Drenthe and within the area of the province of Overijssem designated by the Netherlands Government. This discount shall not amount to more than 5% of the price per m³ offtake, excluding any surcharges.

The amount payable by the customer pursuant to the preceding paragraphs is exclusive of value added tax.

PORTUGAL

GDP (Gas de Portugal) is the sole company producing and distributing piped town gas in Lisbon and neighbouring municipalities.

Price regulation

The prices for a cubic metre of town gas and monthly service charge are regulated by the Secretary of State for Energy and the Secretary of State for Domestic Trade.

Taxation

A VAT rate currently set at 5% is applied to the price per cubic metre of town gas and monthly service charge.

Pricing system

The prices charged by GDP vary according to the following annual consumption bands :

*	0 - 8878 GJ/year	2296 PTE/GJ + VAT (5 %)
*	8878 - 22823 GJ/year	1199 PTE/GJ + VAT (5 %)
*	> 22823 GJ/year	1101 PTE/GJ + VAT (5 %)

Tariff and contractual formulas

GDP customers who are supplied with piped gas must pay a monthly service charge which varies according to the type of meter installed.

The large majority of GDP customers (about 99%) have meter types G4 or G6 (518 ESC + VAT).

Options (interruptibility, seasonal rates, reductions) are not currently available.

UNITED KINGDOM

Tariff customers

Domestic and smaller industrial and commercial customers, i.e. those consuming up to 263.6 GJ per year, are supplied under published tariffs. Since 1 March 1990 these tariffs have been standard across the whole of the United Kingdom. There are two main types of tariff, the credit tariff, which applies to the majority of domestic sector sales, and the domestic prepayment tariff, where consumers pay in advance via a meter. Both tariffs incorporate a standing charge and charges for each unit consumed. The rate payable per GJ varies according to the level of consumption, reducing as consumption increases.

Non-tariff customers

Customers taking more than 263.6 per year can be supplied either by British Gas or by another supplier. For supplies by British Gas customers are normally supplied according to the prices and terms set out in published schedules, although they can be supplied under British Gas's tariffs. These schedules were introduced in May 1989 following recommendations in the 1988 report by the Monopolies and Mergers Commission, and are intended to stimulate competition in the market. Suppliers other than British Gas negotiate individual contracts with customers.

The prices within British Gas's schedules are determined according to a number of factors, including the size of the load, the number of premises supplied, whether the supplies are firm or interruptible and the length of the period of interruption. Interruptible supplies are available only to customers consuming more than 21.105 GJ per year. There are different schedules for contracts of different lengths. The schedules do not differentiate according to the use of the gas by the customer. Power station's supplies are generally covered by the schedule for long-term contracts (10-15 years).

In general the schedules in operation incorporate a monthly charge and a unit charge. The monthly charge varies according to the level of annual consumption; the unit charge varies with consumption and also according to the number of premises supplied. There are optional terms in the schedules allowing for prices to be fixed (at supplement of the basic price) or for the prices to be indexed. For firm supplies the schedules also incorporate seasonal pricing factors which increase the price in Winter. These factors are as follows :

- December, January, February, March	1.0
- April, May, October, November	0.95
- June July, August, September	0.85

Since British Gas remains the majority supplier, all prices reported under the Directive for the United Kingdom gas market for 1 July 1993 are these charged by British Gas.

Regulation of gas prices

Since 1987 prices charged by British Gas to the tariff sector have been restricted according to a formula linked to the rate of inflation as measured by the Retail Price Index (RPI). The Director General of Gas supply has the responsibility of monitoring and enforcing the formula. Under the formula British Gas can increase its prices up to the level allowed by the formula which has the structure $RPI - X + GPI - Z + E$.

The first part of the formula, RPI-X applies to "non-gas costs", that is, all British Gas costs except the purchase cost of gas. British Gas is allowed to reflect increases in these costs in its prices up to the rate of inflation minus an efficiency factor (X) set at 5%.

The second element GPI-Z is a price cap which means that British Gas can increase its gas costs in accordance with the movement in a special gas price index minus an efficiency factor, Z, set at 1%.

The third element E covers certain energy efficiency expenditure and the fourth element K allows under-shoot or over-shoot in any particular year to be corrected in later years.

Gas prices to larger consumers outside the tariff sector are not subject to the same regulation. The report published by the Monopolies and Mergers Commission in October 1988 recommended that British Gas be required to publish a schedule of prices at which it was prepared to supply firm and interruptible gas to contract customers. This recommendation was accepted by the Government and price schedules were introduced from May 1989.