



Statistics 1998

euro  gas

Gas statistics and prospects

Primary energy consumption

1998 Primary Energy Consumption in eurogas Member Countries (EU 15)

MTOE	A	B	CH	CZ	D	DK	E	F	FIN	H	I	IRL	NL	S	SK	UK(4)	EU 15
Oil	11.8	23.9	12.5	7.9	137.4	9.0	61.7	98.90	8.6	6.90	94.40	6.75	24.60	17.70	5.36	75.3	600.8
Solid Fossil Fuels	3.6	8.5	0.1	19.7	84.8	5.6	17.6	15.80	5.3	3.79	12.10	3.27	9.20	2.20	4.68	40.6	221.9
Natural Gas	6.7	12.5	2.4	8.5	71.8	4.3	11.8	33.90	3.3	10.16	51.50	2.37	35.00	0.90	6.27	87.3	321.9
Nuclear Electr. 1)	0.0	11.4	6.4	3.2	42.1	0.0	15.4	86.10	5.5	3.63	0.00	0.00	2.70	18.50	2.97	23.3	205.0
Hydro Electr. 1)	3.3	0.1	2.9	0.1	1.8	0.0	3.1	14.80	1.3	0.01	3.80	0.06	0.00	6.50	0.39	0.4	37.2
Electricity Net imp.	0.0	0.3	(0.5)	(0.2)	(0.1)	(0.4)	0.3	(12.80)	0.8	0.06	3.30	0.00	1.10	(0.80)	0.12	1.4	(5.5)
Renewables 2)	3.3	0.0	6.5	0.0	6.5	1.9	4.0	11.50	6.1	0.35	1.60	0.17	0.00	7.80	0.00	2.0	45.7
Other	0.4	0.0	0.9	0.0	0.0	0.0	0.0	0.00	0.0	0.09	3.55	0.00	1.30	0.30	0.63	0.0	5.5
Total	28.1	86.7	25.2	39.3	344.3	20.5	113.9	247.4	30.9	25.0	170.2	12.6	73.9	52.8	23.4	230.3	1,432.8

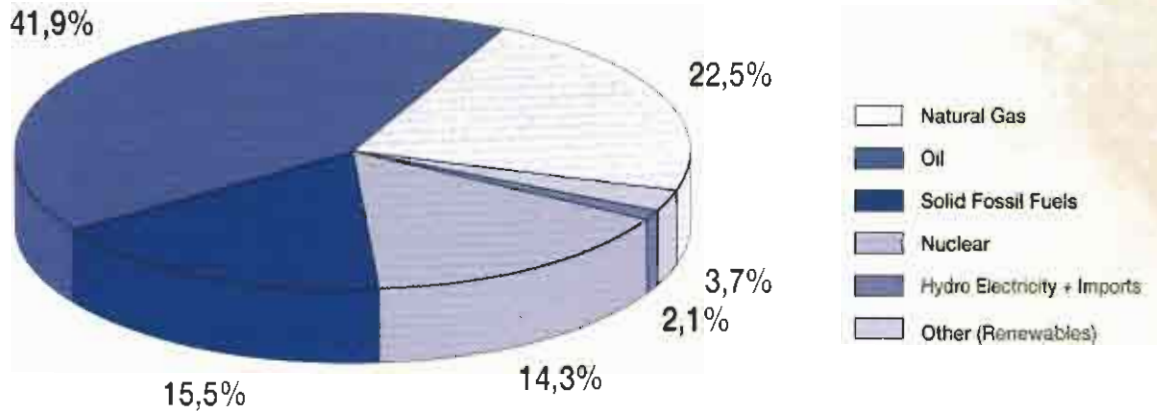
Notes : 1) Domestically produced

2) Renewables includes biomass, wind, solar and geothermal energy.

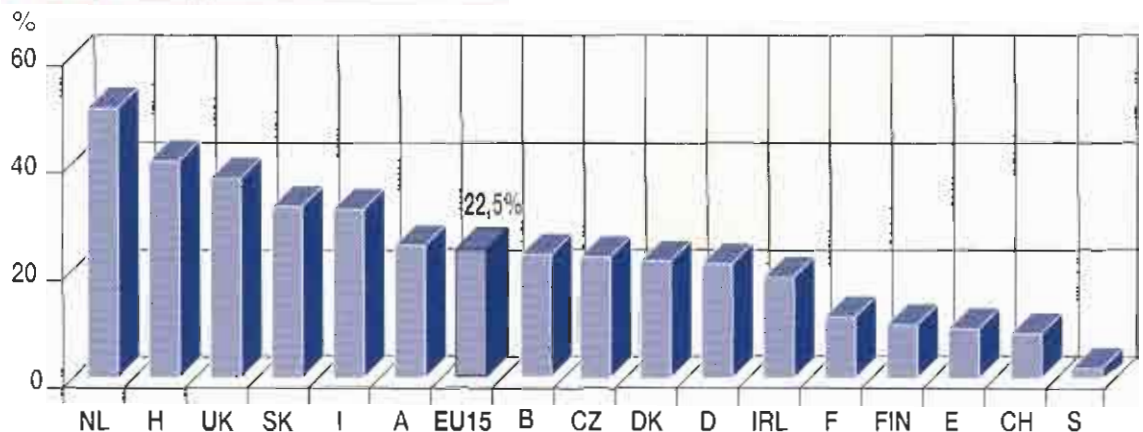
3) 1997 figures

4) UK figures are gross CV

1998 Primary Energy Consumption by fuel (EU15)



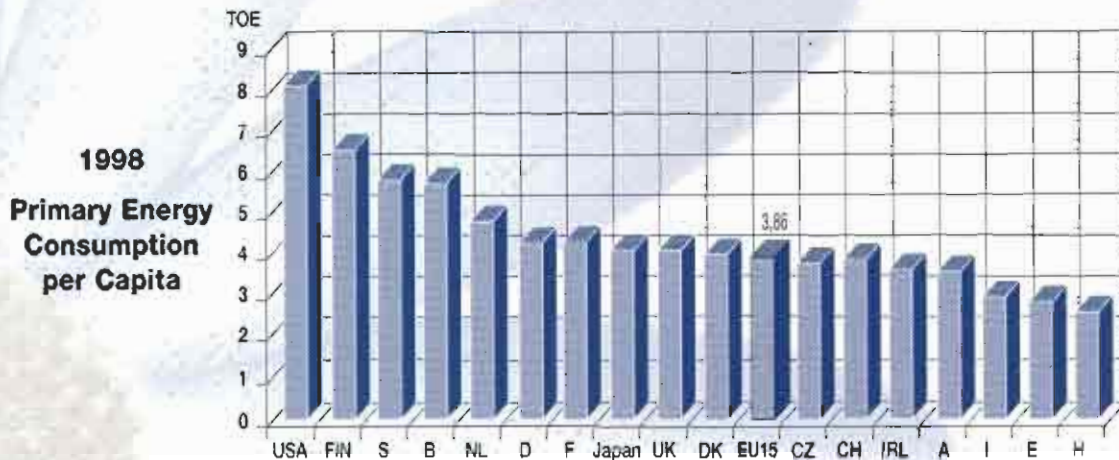
1998 Share of Natural Gas in Primary Energy Consumption



1998 Primary Energy Consumption (PEC) per capita / per unit of GDP

	A	B	CH	CZ	D	DK	E	F	FIN	H	I	IRL	NL	S	UK	EU 15
PEC per capita 1)	3.47	5.76	3.72	3.76	4.24	3.93	2.66	4.26	6.47	2.38	2.92	3.59	4.76	5.79	4.00	3.86
PEC/GDP-ratio 2)	0.15	0.26	0.11	1.43	0.18	0.13	0.19	0.19	0.22	0.68	0.14	0.16	0.21	0.21	0.21	0.20

Notes : 1) IEA - estimate (for 1998) measured as total primary energy supply in TOE per inhabitant.
 2) IEA - estimate (for 1998) measured as total primary energy supply in TOE per \$ 1000 of GDP at 1990 prices and exchange rates.

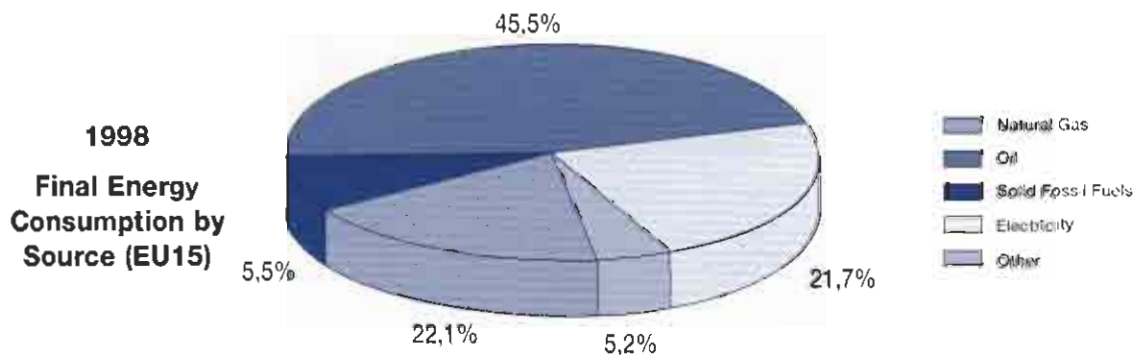


Final energy consumption

1998 Final Energy Consumption in eurogas Member Countries (EU15)

MTOE	A 3)	B 3)	CH	CZ	D	DK 3)	E	F	FIN 3)	H	I	IRL	NL	S	UK 3)	EU 15	
Oil	10.2	21.4	12.4	6.9	103.8	7.5	53.8	77.2	8.9	4.7	65.4	5.6	18.9	12.1	5.2	68.7	477.3
Solid Fossil Fuels	1.5	3.5	0.1	7.1	15.7	0.4	2.4	7.7	1.3	1.5	4.5	1.5	2.2	6.5	5.1	7.9	67.9
Natural Gas	3.7	9.6	2.2	6.3	51.7	1.9	9.6	30.3	1.3	5.9	37.3	0.9	22.4	0.5	6.2	57.2	227.8
Electricity 1)	4.1	6.2	4.3	4.3	40.8	2.7	14.3	82.2	6.1	2.4	22.0	1.5	7.9	10.9	2.0	26.8	231.8
Other 2)	4.3	0.0	1.3	3.9	14.0	2.9	3.6	10.4	6.7	2.3	1.3	0.0	4.6	3.9	1.6	54.3	
Total	23.8	40.7	20.3	28.5	226.0	16.4	83.7	207.8	24.3	16.8	130.5	9.5	68.0	33.9	18.4	160.1	1049

Notes : 1) Includes electricity produced by CHP-plants. Heat produced by CHP-plants is included in "Other".
 2) Includes heat (e.g. district heating) and non-electricity generating renewables (e.g. biomass generated heat).
 3) 1997 figures.

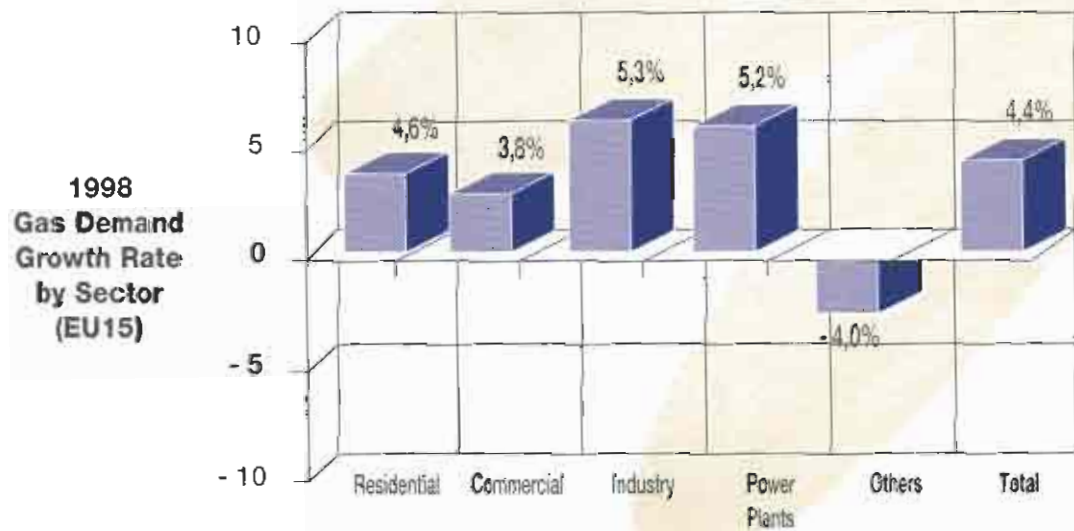
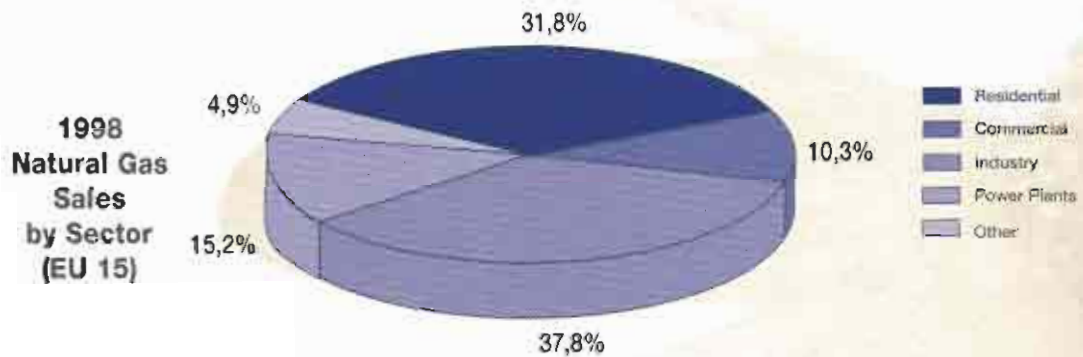


Natural Gas Sales and Supplies

1998 Inland Sales of Natural Gas by Sector in eurogas Member Countries / EU 15

PJ	A	B	CN	CZ	D	DK	E	F	FIN	H	I	IRL	NL	S	SK	UK	EU 15
Residential	100.0	158.9	40.1	96.3	1,080.0	27.4	73.1	589.0	0.9	131.1	754.2	15.7	432.8	3.5	67.7	1,297.0	4,527.0
Commercial	n.a.	70.6	18.2	66.5	125.0	14.5	22.3	255.5	1.1	57.3	212.7	10.5	323.6	3.2	16.1	428.0	1,471.1
Industry	133.0	223.5	43.2	118.8	1,335.0	44.6	425.4	697.0	80.6	112.9	1,016.2	39.8	811.6	15.4	173.0	732.0	5,388.3
Power Plants	57.0	126.9	0.0	61.7	270.0	23.1	25.9	0.7	29.7	88.9	382.7	60.6	250.7	0.0	0.0	812.0	2,160.0
Others	0.0	0.0	8.3	12.7	450.0	65.8	0.0	10.9	45.3	26.11	32.6	2.4	4.9	15.4	3.8	80.0	795.4
Total	293.0	577.9	106.5	356.3	3,240.0	175.4	546.7	1,553.1	155.6	418.2	2,378.4	129.0	1,823.6	37.5	259.5	3,449.0	14,251.7

With an assumed energy content of $1m^3$ of 39 MJ (GCV), Total Inland Sales corresponds to 365 BCM (approx. 306 MTOE (NDV))

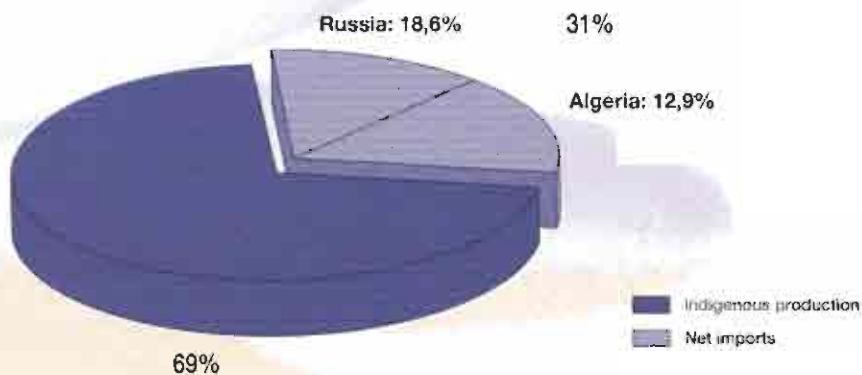


1998 Supplies of Natural Gas in Eurogas Member Countries / EU 15

PJ	A	B	CH	CZ	D	DK	E	F	FIN	W	I	ITL	NL	S	SK	UK	EU15	EU15
Indigenous Production	62.0	0.0	0.0	3.8	730.0	294.4	24.2	77.8	0	137.9	724.2	65.4	2,632.1	0.0	11.3	3,538.0	6,148.1	97.2%
+ Net Imports:																		
- from EU-members	13.0	200.1	96.1	9.8	825.0	(117.0)	0.0	199.2	0	88.7	116.0	64.9	(1,211.4)	37.5	3.8	(114.0)	41.6	0.3%
- from Non-EU-members	234.0	378.2	13.8	253.7	1,755.0	0.0	660.4	1,202.4	155.48	270.6	1,508.1	0.0	177.7	0.0	244.4	38.0	6,073.7	42.7%
+/- changes in stocks 1) and other balances	(16.0)	(0.4)	0.0	(11.1)	(70.8)	(2.1)	(38.0)	73.7	0.05	(12.8)	31.1	0.0	25.2	0.0	0.0	(30.0)	(26.9)	-0.2%
= Net Supplies	293.0	577.9	109.9	355.2	3,340.0	174.5	546.0	1,383.1	155.5	453.4	2,370.4	130.3	1,823.8	37.5	269.4	3,432.0	14,235.6	100.0%

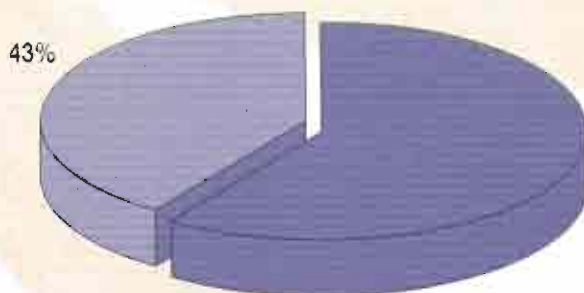
Notes : 1) - Increase in stocks; + Decrease in stocks

1998 Breakdown of Western Europe's Natural Gas Supplies



Note: Western Europe = EU + Norway + Switzerland

1998 EU Share of World Gas Trade



In 1998 world natural gas trade (import/export) totalled to some 405 MTOE of which 43% was imported by EU-countries.

Source : Eurogas and Cedigaz



The European
Natural Gas Grid 1998

**pipelines integrated
in the European system**

- existing
- under construction
or planned

**other pipelines
existing**

- under construction
or planned

- natural gas fields

**liquefied natural gas (LNG)
receiving terminal**

- in operation
- under construction
or planned





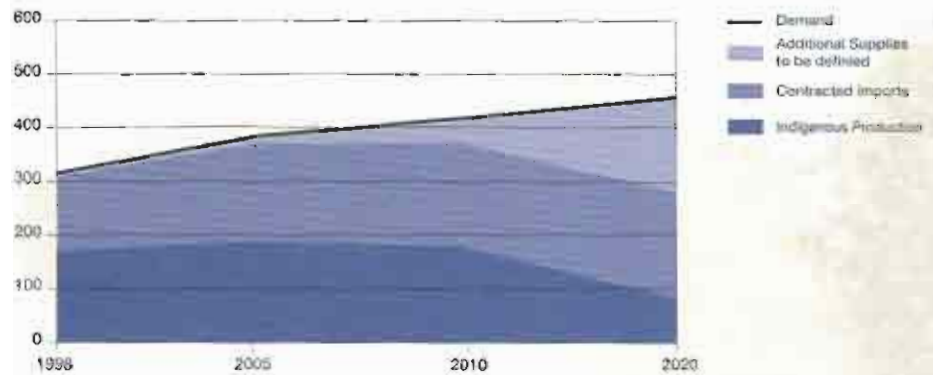
Natural Gas Demand and Supply Outlook to 2020

Eurogas Long-term Natural Gas Demand & Supply Outlook / EU15

MTOE	1998	2005	2010	2020
Total Demand	307	383	412	450
Indigenous Production	174	190	176	98/133*
Net Contracted Imports	131	181	196	193
Additional Supplies to be Defined	-	11	40	160/125*
Share of Primary Energy Consumption	22%	25%	27%	28%

*Indigenous production given favourable technological and economic conditions. Additional supplies as accordingly reduced

EU Natural Gas Demand & Supply Outlook 1998-2020 (MTOE)

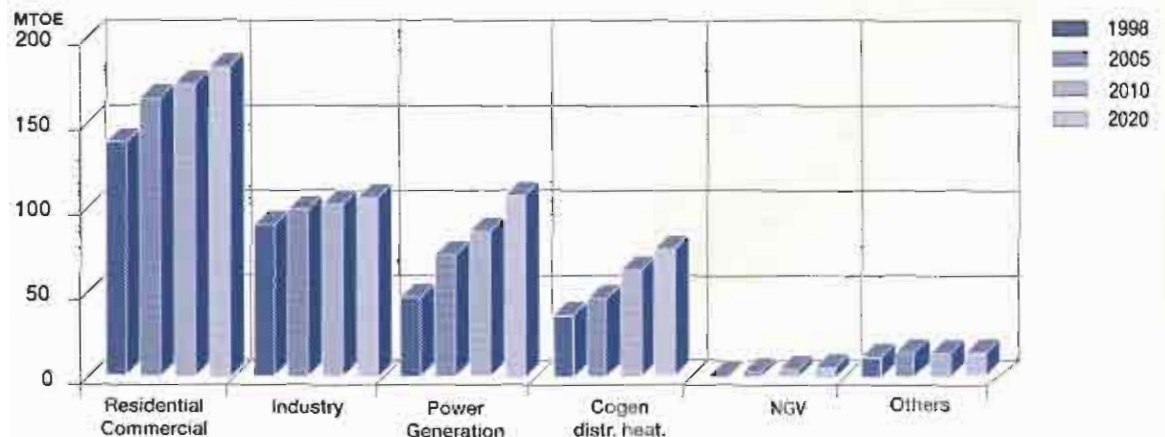


Maximum Expected Import Dependency EU15 / Western Europe

MTOE	1997	2005	2010	2020
European Union	43%	50%	57%	71*/78%
Western Europe 1)	32%	33%	39%	51*/59%

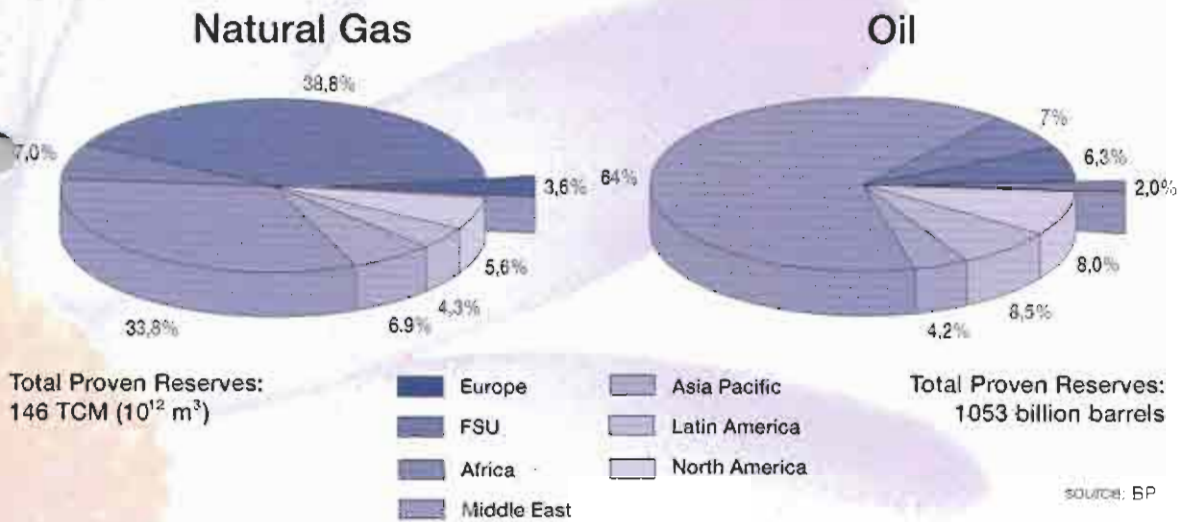
1) Western Europe = EU + Norway + Switzerland. * expected import dependency given favourable technological and economic conditions

Natural Gas Demand Outlook by Sector, EU15

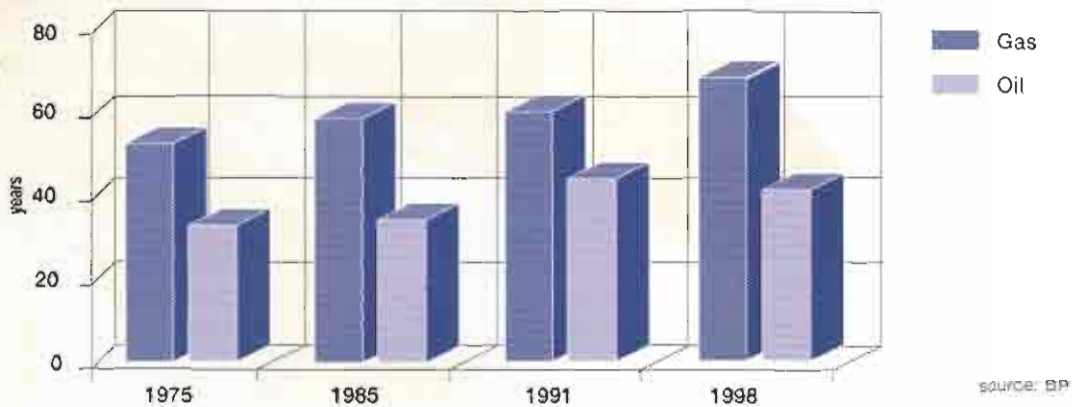


Natural Gas Reserves

Definition of World Gas and Oil Reserves by Region, 1997



World Reserves / Production Ratios, Gas vs Oil



The bars indicate years of lifetime of the proven reserves at given consumption level, taking into account today's known additional recoverable reserves, real lifetimes of reserves will be much higher, well exceeding 100 years.

Gas Supply Industry Key Figures

Number of Gas Customers (in thousands, rounded) at 1 January 1999

	A	B	CH	CZ 1)	D 1)	DK	E	F	FIN	H	I	IRL	NL	S 2)	SK	UK	EU15
Domestic	1222	2346	410	2249	16200	308	3426	979	34	2667	14260	302	6090	52	1218	19961	74069.9
Non-Domestic	2	88	25	127	700	7	67	486	1	143	920	11	390	3	45	362	3039.8
Total	1224	2435	435	2376	16900	315	3493	10276	35	2810	15200	313	6470	55	1266	20323	77109.5

Number of Employees at 1 January 1999

	A 1)	B 1)	CH	CZ	D	DK 2)	E	F 1)	FIN	H	I	IRL	NL	S	SK	UK	EU15
Total for Transmission and Distribution	3063	4210	1650	6034	44000	1175	4153	25000	340	12500	35000	735	10150	225	6551	31000	159724

Investments in 1998 (mio ECU-average July 1998 rates)

	A	B	CH	CZ	D	DK	E	F	FIN	H	I	IRL	NL	S	SK	UK	EU15
Total for Transmission and Distribution	227	210	322	124	2900	233	610	1019	16	n.a.	1860	103	376	4	243	758	8617.1

Pipeline Lengths at 1 January 1999 (km)

	A	B	CH	CZ	D	DK	E	F	FIN	H	I	IRL	NL	S	SK	UK	EU15
Transmission	5183	3748	1986	3454	57000	1113	9910	33512	920	5123	30000	1037	11630	627	5752	18000	174431
Distribution	21339	43962	12000	45424	288000	16635	20221	148034	1070	51600	175000	5834	113000	3000	16195	256200	1098448
Total	26522	47711	14586	48878	345000	17748	30131	182546	1990	56723	205000	6971	124630	3,527	23947	274200	1272879

Natural Gas Storage at 1 January 1999

	A	B	CH	CZ 3)	D	DK	E	F	FIN	H	I	IRL	NL	S	SK	UK
Number of Storage Facilities	5	3	-1	5 +(2)	39	2	2	15	0	5	8	0	3	0	1 +(1)	7
Maximum Working Volume, mill m ³	2630	675	appr. 72	1620+(800)	16132	770	119	9915	0	3420	15100	0	1750	0	1285	3459
Maximum Withdrawal Capacity, mill m ³ /day	27	appr. 19	appr. 2.1	20.5+(9.9)	389	appr. 20	9.15	185	0	appr. 34	263	0	100	0	n.a.	134

Notes : 1) preliminary
2) approximate
3) { } = Storage facilities abroad