

# COMMISSION OF THE EUROPEAN COMMUNITIES

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REPORT FROM THE COMMISSION TO THE COUNCIL

**ON THE COLLECTION OF INFORMATION  
CONCERNING INVESTMENTS OF INTEREST TO THE COMMUNITY  
IN THE PETROLEUM, NATURAL GAS AND ELECTRICITY SECTORS**

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**PART A: COMMISSION SUMMARY**

**1. Objective of the Regulation**

Council Regulation (EEC) No 1056/72<sup>1</sup>, as amended by Council Regulation (EEC) No 1215/76<sup>2</sup>, states that the Commission must be notified of investment projects of interest to the Community in the petroleum, natural gas and electricity sectors.

The Regulation is concerned with installations for energy reception (terminals for the importation of liquified natural gas) and energy production (electricity generation and oil refining), petroleum, natural gas and electricity supply lines, plus petroleum and natural gas storage installations.

The objective of this Regulation is to provide the Commission with detailed information on planned energy investment projects of Community interest, thereby enabling it to have an overview of planned developments in capacities and equipment in the Community energy sector.

Notification of investment projects under the Regulation backs up similar provisions laid down by the Euratom and ECSC Treaties to provide data for evaluating and, where appropriate, influencing the main developments and trends in these investments.

**2. Information available on 30 June 1994**

A summary is given below of the conclusions to be drawn from the information gathered under Regulation 1056/72 regarding existing or planned capacity and capacity under construction on 1 January 1993. A more detailed report on the information is available to back up this communication.

**a. Electricity**

On 1 January 1993, conventional thermal capacity in the Community amounted to 47.5 GW. Planned investments for 1991-93 were concentrated in two Member States

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<sup>1</sup> OJ No L 120, 15.5.72, p.7.

<sup>2</sup> OJ No L 140, 18.5.76, p.1.

(Italy: 13 GW and the UK: 17 GW), which alone account for over 63% of total capacity under construction or planned.

According to reports received, out of a total capacity of 47.5 GW under construction or planned - half of which are single-fuel units - 79% (37.6 GW) are capable of burning natural gas.

The decision-making procedure for planned conventional thermal units (27.8 GW) was incomplete in all cases.

Total nuclear production capacity in service in the Community on 1 January 1993 was 114.8 GW. If current construction deadlines are met, total nuclear capacity in 1997 will be 122 GW. Only three Member States (France: 7.4 GW, Germany: 1.3 GW and the United Kingdom: 1.3 GW) report having nuclear capacity under construction or planned. Only five nuclear units are under construction (7.2 GW).

Total hydropower generation capacity under construction and planned on 1 January 1993 shows no change over the situation one year previously. Of this capacity, 30% covers mixed pumped storage electricity production units (1.6 GW), 6% pumped storage (0.3 GW), with the remaining 64% (3.3 GW) solely intended for electricity production.

#### b. Natural gas

Existing gas pipeline systems reflect the size of countries, the size of their gas industries, the rate of penetration of gas in the energy market, and their particular geographical features. On 1 January 1993, the total length of existing gas pipelines in the Community (of a diameter equal to or greater than 300mm) was 43 838 km, i.e. 8 578 km or 25% more than on 1 January 1990, particularly as a result of major investment programmes in France and Germany.

Major work is under way in Spain and Italy to reinforce and extend existing gas pipelines systems; this is also the case in the United Kingdom and Belgium.

On 1 January 1993, the total length of gas pipelines under construction in the Community (of a diameter equal to or greater than 300 mm) was 2 918 km.

Major investments are planned for the introduction of natural gas in Greece and Portugal.

Other projects, some of them large-scale, are planned in Belgium, Germany, Italy, the Netherlands and especially Spain (see the attached data). On 1 January 1993, the total length of planned gas pipelines in the Community (of a diameter equal to or greater than 300 mm) was of the order of 3 360 km.

Seven terminals for the import of liquified natural gas (LNG) are operating in the Community: two in France (Montoir and Fos), two in Spain (Barcelona and Huelva) and one each in Italy (La Spezia), Belgium (Zeebrugge) and the United Kingdom (Canvey Island). Total LNG storage capacity at all these terminals is 1.1 million m<sup>3</sup> of natural gas in liquid form. Maximum regasification capacity is 5.57 million m<sup>3</sup>/hour (situation on 1 January 1993).

Spain has undertaken work at the Cartagena, Aurin-Jaca and Planta Ferrol terminals with a view to increasing its import capacity by 1992-94. The increase in LNG storage capacity will be 50 000 m<sup>3</sup>.

The project to establish a gas terminal at Wilhelmshaven (Germany) is still frozen. The Revithoussa island project in Greece is expected to become operational in 1997/98.

Further details on each of the LNG terminals are attached to this paper.

Underground storage installations must also be considered an integral part of natural gas supply systems.

Four Member States (Italy, France, Germany and the United Kingdom) have on their territory almost all the Community's natural gas underground storage capacities, which amounted to 67.8 x 10<sup>9</sup>m<sup>3</sup> on 1 January 1993. Some storage capacities also exist in Denmark and Belgium.

Five Member States (Germany, Belgium, Denmark, France and the United Kingdom) have undertaken work to create additional underground storage capacity amounting to 6.5 x 10<sup>9</sup>m<sup>3</sup>.

Belgium and Germany are planning to create new storage capacities totalling approximately 1.7 x 10<sup>9</sup>m<sup>3</sup>.

Further details of total and usable underground storage capacity and maximum withdrawal possibilities are given in the annex, for each Member State concerned.

#### c. Petroleum

Atmospheric distillation capacity has levelled off, after the major restructuring of the 1970s (total capacity of 915 Mt/year in 1985), at around 610 Mt/year. It is worth noting, however, that there are plans to close a refinery in the former GDR (8.5 Mt/year).

Conversion capacity increased considerably during the 1980s, reflecting the increase in demand for middle distillates and petrol and the drop in heavy fuel oil consumption. Total conversion capacity more than doubled between 1980 (100.5 Mt/year) and 1993 (206.5 Mt/year).

Desulphurization capacity for middle distillates (heating oil and diesel) has increased in recent years, reaching 152.1 Mt/year in 1993, as a result of rules on sulphur levels being tightened up by two Council Directives (87/210/EEC and 93/12/EC). There are major investment projects for 1994 and the following years with 2.875 Mt/year in 1994, 2.8 Mt/year in 1995 and at least 1.8 Mt/year more after that. The latter investments are required by the obligation to market diesel fuel with a 0.05% sulphur content from 1 October 1996.

In recent years Community refining has had to adapt to the marketing of unleaded petrol. Tetraethyl or tetramethyl lead, which is an excellent octane-raising agent, has had to be replaced by other compounds with high octane ratings originating from processes such as isomerization, alkylation, polymerization or substitute fuels (MTBE, ETBE, etc.).

These processes are not covered by Regulation 1056/72 and it would now appear useful to adapt the form for gathering information so as to be able to follow more closely developments in investments in the refining sector.

### 3. Use of information

As stated above, the information gathered under the Regulation is needed for the Commission's ongoing activities, not only as regards the energy sector but also for other requirements such as the provision of information to certain official bodies such as the Statistical Office (which publishes them in its statistical yearbook for energy), regular transmission thereof to Member States or analysis of the situation in the relevant sectors.

The Commission would point out that in view of the fundamental contribution of investments in the reception, production, supply and storage of energy to the security of energy supply for consumers in the Community, the Commission needs to be informed in good time of planned developments, in order to take this into account when formulating possible energy policy proposals.

This information casts light on the allocation of energy investment resources between Member States, and makes it possible to monitor existing capacities in service and make an inventory of new capacities or withdrawals in progress or planned. Hence they can serve to evaluate the foreseeable degree of security of supply in each Member State and the whole Community.

Information on past situations and forecasts for the future also represent a key statistical element in the periodic drawing up of documents by the Commission on the industry and the market in the three sectors concerned.

Forecasts of planned investments make advance analysis possible of the adaptation of facilities to changes in demand and in particular, as far as petroleum is concerned, the placing on the market of products with higher added value which meet stricter regulations and environmental standards. This information also enables the Commission better to evaluate the impact of new projects proposed as part of the trans-European networks programme.

The Regulation constitutes the Commission's only source of official information on developments in production, conversion and supply capacities at Union level. By acting as intermediaries for collecting information from firms, Member States can also avail themselves of a useful, regular and reliable source of information.

### 4. Reliability of information

Owing to the multiplicity of information gathered, the number of players involved and possible differences of interpretation as regards information requested, it is essential to verify the information received. This reveals that the data gathered are the most reliable sources available to the Commission. This information comes directly from national administrations, which have gathered them directly from firms operating or established on their territory.

Thanks to this information, the Commission can constantly monitor changes in existing or planned capacity in the various energy sectors in the Member States.

The quality and accuracy of data gathered vary, however, from one Member State to another. In some cases, information is incomplete and has to be modified after bilateral discussions. Other Member States continue to send information to the Commission which does not fully correspond to the contents of the Regulation. Efforts would appear to be necessary here to ensure that accurate information, as required by the Regulation, is supplied.

#### 5. Delays in the transmission of data

Under Regulation 1056/72, information on projects must be sent by firms to the Member States by 15 January each year and forwarded by the latter to the Commission by 15 February.

This deadline is still not being met and resulting delays have a knock-on effect on the processing of data and on the drawing up of the summary report.

Member States affected by these delays should make a priority of stepping up their efforts to speed up the collection of information on projects and sending it to the Commission.

## PART B

### **Forecasts and annexes concerning the data received**

Part B is divided into two sections; the first section forecasts, for the years 1995 or 2000, the capacity in the petroleum, natural gas and electricity sectors, taking into account the present and future investment situation.

The second section sets out data received by the Commission from the Member States on the investment situation in the three sectors concerned as at 1 January 1993.

Commentaries on the content of these tables have already been given in part A, point 2 of the communication.



## FORECASTS FOR THE YEARS 1995 AND 2000

Council Regulation (EEC) No 1056/72 enables the Commission to collect statistical data on the level of equipment and foreseeable developments in the petroleum, natural gas and electricity sectors. This information is of importance for internal work in Commission departments and dialogue with the energy industry and for the Member States.

The following text summarizes the present and future investment situation in the petroleum, electricity and gas sectors. The data collected via Council Regulation (EEC) No 1056/72 have been compared with other sources of information so that they can be evaluated.

### Petroleum

Atmospheric refining capacity in the European Union appears to be in accordance with the total demand for petroleum products forecast for 1994 and 1995. The total distillation capacity is likely to be used at more than 90% in 1995 compared with just under 90% in 1993.

In 1994 the capacity of units producing light fuels (cracking, etc.) is increasing more quickly than market requirements; in 1995, however, a slight reduction in this capacity is forecast whereas the demand for light products will continue to increase. This development raises the question of the future strategy to be adopted: either the slowing down in investment continues and in this case it will be necessary to meet the increase in demand by having recourse to imports or a revival of investment in refining will enable the trend in the demand for products to be followed.

Investment in desulphurization capacity appears to be in accordance with the increase in demand in 1994. However, in 1995, a great disparity is forecast between investment in desulphurization capacity and the foreseeable increase in demand for low-sulphur products (diesel fuel for motor vehicles). In this area there seems to be plenty to think about for the Member State authorities and representatives of the petroleum industry.

### Electricity

Concerning electricity, information collected on the basis of Council Regulation (EEC) No 1056/72 can be compared with that from EUROELECTRIC and the forecasts from DG XVII. In view of the long-term nature of investment in electricity production, comparisons can be made for the year 2000.

In general, forecasts made by the Member States under Council Regulation (EEC) No 1056/72 appear to give a total quantity of investment up to the end of the century which is clearly below that of the intentions indicated by industrialists and the figures put forward by DG XVII in September 1992.

These differences in figures concern the level of investment in conventional thermal capacity whereas the forecasts for nuclear and hydropower capacity are similar. Where investment in conventional thermal capacity is concerned the greatest differences are to be found in Belgium, Greece, Italy, Spain and the United Kingdom.

Investment has to be determined on the basis of the expected rate of increase in demand, and it seems surprising to note such disparities in demand forecasts for a seven-year period. This disparity in investment intentions ought to be discussed with the Member States.

### Natural Gas

Council Regulation (EEC) No 1056/72 provides information on planned investment in import, transport and distribution infrastructures. However, no distinction is made between gas pipelines for domestic transmission and trans-European gas pipelines. Reception capacity is indicated only for the LNG terminals but this does not cover the total gas supply. The present system should therefore be improved to allow more fruitful discussion with the Member States and gas companies.

There is also important information regarding underground gas storage capacity. This enables us to estimate the maximum number of days of consumption which can be covered by stocks. In all the countries which have underground storage this could represent 74 days of consumption in 1995. Views could be exchanged as to whether these stocks are adequate or not.

**REFINING CAPACITY IN THE EUROPEAN UNION**

	1992	1993	1994	1995
Atmospheric distillation capacity in Mt (1)	609.2	611.7	613.3	614.3
Crude oil input in Mt (2)	549.4	549.9	559.7	561.5
Utilisation rate in %	90.2	89.9	91.3	91.4
Increase in upgrading Facilities in Mt (1)	3.0	5.4	5.2	-0.5
Increase in Demand for light fuels (2)	3.6	-0.3	2.4	4.2
Annual Increment of (Capacity-Demand)	-0.6	5.7	2.8	-4.7
Accumulated Increment of (Capacity-Demand)	-	5.1	6.1	-1.9
Increase in Desulphuris. Facilities in Mt (1)	1.9	1.9	2.9	2.8
Increase in Demand for Middle Distillates in Mt (2)	1.5	1.3	1.9	5.4
Annual Increment of (Capacity-Demand)	0.4	0.6	0.9	-2.6
Accumulated Increment of (Capacity-Demand)	-	1.1	1.5	-1.7

(1) Provided by MS under Regulation 1056/72.

(2) DG XVII's Short-Term Energy Outlook.

**NATURAL GAS UNDERGROUND STORAGE CAPACITY IN THE EUROPEAN UNION**

Million cubic meter	Member States		DG XVII	
	Total	Useful	Demand in 1995	Days of Demand (1)
<b>Belgium existing</b>	720	350		
Under construction	130	120		
Planned	300	150		
<b>Total</b>	<b>1150</b>	<b>620</b>	<b>11004</b>	<b>21</b>
<b>Denmark existing</b>	590	275		
Under construction	890	360		
Planned	0	0		
<b>Total</b>	<b>1480</b>	<b>635</b>	<b>2890</b>	<b>80</b>
<b>France existing</b>	19800	8200		
Under construction	1500	600		
Planned	0	0		
<b>Total</b>	<b>21300</b>	<b>8800</b>	<b>32624</b>	<b>98</b>
<b>Germany existing</b>	13721	7744		
Under construction	3813	2020		
Planned	1400	750		
<b>Total</b>	<b>18934</b>	<b>10514</b>	<b>68442</b>	<b>56</b>
<b>Italy existing</b>	20713	11750		
Under construction	0	0		
Planned	0	0		
<b>Total</b>	<b>20713</b>	<b>11750</b>	<b>53137</b>	<b>81</b>
<b>United Kingdom existing</b>	12300	2799		
Under construction	130	931		
Planned	0	0		
<b>Total</b>	<b>12430</b>	<b>3730</b>	<b>62649</b>	<b>22</b>
<b>Sum of these Member States</b>	<b>67844</b>	<b>31118</b>		
Under construction	6463	4031		
Planned	1700	900		
<b>Total</b>	<b>76007</b>	<b>36049</b>	<b>177609</b>	<b>74</b>

(1) Ensured by useful storage capacity.

**ELECTRICITY GENERATING CAPACITY IN THE EUROPEAN UNION**

GW gross	Member States						Eurelectric 2000-93	DG XVII 2000-93
	1992	1993	1994	1995	2000	2000-93		
<b>Belgium Total</b>	14.80	15.72	15.72	15.72	15.72	0.00	1.50	1.72
Conventional Thermal	7.50	8.42	8.42	8.42	8.42	0.00	1.50	1.72
Nuclear	5.90	5.90	5.90	5.90	5.90	0.00	0.00	0.00
Hydro	1.40	1.40	1.40	1.40	1.40	0.00	0.00	0.00
<b>Denmark Total</b>	9.60	9.60	9.60	9.60	10.81	1.21	0.81	1.19
Conventional Thermal	9.60	9.60	9.60	9.60	10.81	1.21	0.81	1.19
Nuclear	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydro	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>France Total</b>	114.80	116.16	116.16	116.16	122.21	6.05	8.12	11.90
Conventional Thermal	25.70	25.70	25.70	25.70	27.22	1.52	1.64	6.90
Nuclear	64.00	65.36	65.36	65.36	69.90	4.53	6.48	5.00
Hydro	25.10	25.10	25.10	25.10	25.10	0.00	0.00	0.00
<b>Germany Total</b>	123.00	123.48	123.98	125.22	127.68	4.20	2.81	2.81
Conventional Thermal	90.40	90.88	91.38	92.62	93.78	2.90	2.12	2.33
Nuclear	23.90	23.90	23.90	23.90	25.20	1.30	0.22	0.00
Hydro	8.70	8.70	8.70	8.70	8.70	0.00	0.48	0.48
<b>Greece Total</b>	9.30	9.60	9.60	9.90	11.83	2.23	4.25	3.96
Conventional Thermal	6.80	7.10	7.10	7.40	8.35	1.25	3.13	3.35
Nuclear	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydro	2.50	2.50	2.50	2.50	3.48	0.98	1.12	0.61
<b>Ireland Total</b>	4.10	4.10	4.10	4.10	4.56	0.46	0.68	0.64
Conventional Thermal	3.60	3.60	3.60	3.60	4.06	0.46	0.67	0.64
Nuclear	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydro	0.50	0.50	0.50	0.50	0.50	0.00	0.01	0.00
<b>Italy Total</b>	63.30	64.53	64.53	65.82	76.97	12.44	14.17	13.44
Conventional Thermal	43.80	44.78	44.78	45.79	54.97	10.19	12.98	12.02
Nuclear	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydro	19.50	19.75	19.75	20.03	22.00	2.25	1.19	1.42
<b>Luxembourg Total</b>	1.30	1.30	1.30	1.30	1.30	0.00	0.00	0.00
Conventional Thermal	0.20	0.20	0.20	0.20	0.20	0.00	-0.01	0.00
Nuclear	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydro	1.10	1.10	1.10	1.10	1.10	0.00	0.00	0.00
<b>Netherlands Total</b>	17.90	18.75	19.35	20.56	23.59	4.84	2.44	3.14
Conventional Thermal	17.40	18.25	18.85	20.06	23.09	4.84	2.43	3.13
Nuclear	0.50	0.50	0.50	0.50	0.50	0.00	0.00	0.00
Hydro	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01
<b>Portugal Total</b>	8.60	9.51	9.51	10.01	12.10	2.59	1.75	2.45
Conventional Thermal	4.70	5.01	5.01	5.32	6.83	1.82	1.18	1.82
Nuclear	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydro	3.90	4.50	4.50	4.69	5.27	0.77	0.56	0.63
<b>Spain Total</b>	45.60	45.60	45.81	45.81	46.91	1.31	6.22	5.68
Conventional Thermal	21.40	21.40	21.40	21.40	22.29	0.89	4.79	4.76
Nuclear	7.40	7.40	7.40	7.40	7.40	0.00	0.00	0.00
Hydro	16.80	16.80	17.01	17.01	17.22	0.42	1.43	0.92
<b>United Kingdom Total</b>	70.00	72.17	75.99	79.65	86.67	14.50	18.50	19.52
Conventional Thermal	52.70	54.87	57.37	61.03	68.05	13.18	17.48	20.08
Nuclear	13.10	13.10	14.42	14.42	14.42	1.32	1.01	-0.56
Hydro	4.20	4.20	4.20	4.20	4.20	0.00	0.00	0.00
<b>European Union Total</b>	482.30	490.52	495.65	503.84	540.34	49.82	61.26	66.44
Conventional Thermal	283.80	289.81	293.41	301.13	328.06	38.25	48.74	57.94
Nuclear	114.80	116.16	117.48	117.48	123.32	7.15	7.71	4.43
Hydro	83.70	84.55	84.76	85.23	88.97	4.42	4.81	4.07

## AGGREGATED DATA FOR THE ELECTRICITY SECTOR OF THE COMMUNITY

### Review of information received

1. Total power plant capacities under construction and planned
2. Conventional thermal plant
3. Nuclear plant
4. Hydro plant
5. Transmission lines and cables

### Electrical power plants

Thermal and hydro-electric power stations; situation at 1.1.1993 in the Community and the Member States :

AN 1 : installed, under construction and projected capacity.

### Thermal power stations

Conventional thermal and nuclear power stations; generating rates with a capacity of 200 MW or more; situation at 1.1.1993 in the Community and the Member States :

AN 2 : under construction and projected plants, by planned year of commissioning

AN 3 : under construction and projected plants, by cooling system

AN 4 : decisional stations of projected plants

AN 5 : in service, under construction and planned investment projects excluding nuclear.

### Nuclear power stations

Under construction and projected power stations; generating nets with a capacity of 200 MW or more; situation at 1.1.1993 of the Community and in the Member States:

AN 6 : by planned year of commissioning

AN 7 : by type of reactor and size of the sets.

Investment projects in power generating

AN 8 : in nuclear thermal power generation

Hydro-electric power stations

Under construction and projected power stations; generating plant of 50 MW or more; situation at 1.1.1993 in the Community and the Member States :

AN 9 : by category of plant and by planned year of commissioning.

Investment projects in power generation

AN 10 : in hydro-electric power generation

Transmission lines and cables

Overhead lines and underground cables; situation at 1.1.1993 in the Member States:

AN 11 : under construction and projected transmission lines by planned year of commissioning.

## REVIEW OF INFORMATION RECEIVED

### 1. Total power plant capacities under construction and planned

Table 1 indicates the total capacities under construction and planned in each sector as at 1.1.93, together with the evolution as reported during the last four years. See Annex 1 for the installed capacity and Annex 2, 7 and 10 for the planning of commissioning as at 1.1.93.

Table 1

Mw gross

		Conventional thermal	Nuclear	Hydro	Total
EUR-12	1.1.98	26.879	25.352	7.082	59.313
>>	1.1.90	23.292	15.583	6.400	45.275
>>	1.1.91	34.388	11.621	6.594	52.603
>>	1.1.92	52.552	10.259	5.453	68.264
>>	1.1.93	47.513	10.031	5.266	62.810

### 2. Conventional thermal plant

Table 2 gives an analysis of the current totals by principal fuel capability categories:

- of the total of 19,8 GW of plant known to be currently under construction, 7,8 GW was capable of burning solid fuel whilst 9,2 GW was capable of burning oil;
- the total capacities of plant in construction and planning capable of burning natural gas have decreased (-4,3 GW 1993/1992);
- there is not any plant in construction and planning capable of burning oil only.

See Annex 1, 2, 3, 4 and 5 for summary of notifications received.



Table 2

Capable of burning	Commissioned in 1992 (1991)	Under construction A	In planning to be in service		TOTAL A+B+C
			by 1997 B	after 1997 and date unknown C	
1. Hard coal	2598 (788)	6666 (9317)	2255 (3117)	2293 (5081)	11214 (17515)
- of which coal only	553 (0)	1366 (1972)	1493 (1100)	308 (961)	3167 (4033)
2. Brown coal	0 (300)	1150 (0)	0 (1100)	300 (600)	1450 (1700)
3. oil	2565 (1406)	9230 (10005)	3690 (6463)	5325 (5620)	18245 (22088)
- of which oil only	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
4. Natural gas	2290 (1566)	15407 (12866)	10761 (16614)	11515 (12509)	37683 (41989)
- of which natural gas only	450 (224)	5137 (3186)	7009 (11344)	5901 (6929)	18047 (21459)
5. Fuel unknown or undecided	0 (0)	888 (0)	0 (0)	1200 (600)	2088 (600)

Figures in brackets refer to the situation as at 1.1.1992 (except column Commissioned, in which the situation as at 1.1.1991).

## Nuclear plant

3. Table 3 indicates the current situation.

Table 3

MW gross

Scheduled to be in service	Commissioned in 1992 (1991)	Under construction	In planning
by 1995		2683 (7097)	0 (0)
1996-1998		4548 (0)	0 (1516)
after 1998		0 (346)	2800 (1300)
TOTALS	1382 (1362)	7231 (7443)	2800 (2816)

The 7,2 GW reported in construction represented approximately the 6,3% of the existing capacity. Only France, Germany, and United Kingdom has nuclear capacity in construction or/and planning. See Annex 1, 2, 3, 4 and 5 for summary of notifications received.

## Hydro plant

4. Table 4 indicates the current situation. See Annex 9 and 10 for summary of notifications received

Table 4

MW gross

	Commissioned in 1992 (1991)	Under construction	In planning
Primary conversion <sup>(1)</sup>	0 (105)	1791 (1791)	1560 (1497)
Pumped storage	250 (250)	332 (582)	0 (0)
Mixed pumped storage/primary conversion	0 (0)	583 (443)	1000 (1140)
TOTALS	250 (355)	2706 (2816)	2560 (2637)

<sup>(1)</sup> Includes run-of-river, seasonal and short-term storage and unknown Figures in brackets refer to the situation as at 1.1.1992 (except column Commissioned, in which the situation as at 1.1.1991)

5. Table 5 indicates the current situation of transmission lines for a voltage of 345 kv or more and underground and sub-marine transmission cables for a voltage of 100 kv or more. See Annex 11 for summary of notifications received.

Table 5

	Commissioned in 1992 (1991)	Under construction	Planned
Overhead lines	1060 (1310)	2714 (2682)	6649 (8378)
Underground cables	5 (22)	20 (19)	65 (155)
Underwater cables	0 (0)	26 (0)	879 (1234)
TOTALS	1065 (1332)	2759 (2700)	7593 (9767)

Figures in brackets refer to the situation as at 1.1.1992 (except column Commissioned, in which the situation as at 1.1.1991).

ELECTRICAL POWER PLANT SITUATION IN THE COMMUNITY  
Position at 1.1.93

- GW gross -

	EUR-12	Belgique	Danmark	BR Deutsch- land	España	France	Hellas	Ireland	Italia	Luxem- bourg	Nederland	Portugal	United Kingdom
A. INSTALLED CAPACITY (1) (All generating sets) of which:	482.2	14.8	9.6	123.0	45.6	114.8	9.3	4.1	63.3	1.3	17.9	8.6	70.0
1. Conventional thermal	283.7	7.5	9.6	90.4	21.4	25.7	6.8	3.6	43.8	0.1	17.4	4.7	52.7
2. Nuclear	114.8	5.9		23.9	7.4	64.0					0.5		13.1
3. Hydroelectric	83.7	1.4		8.7	16.8	25.1	2.5	0.5	19.5	1.1		3.9	4.2
B. PLANT UNDER CONSTRUCTION (2)													
E.1.b. Thermal generating sets of 200 MW or more of which:	27.0	0.9		1.8	0.9	5.9	0.4		7.4		1.5	0.6	7.7
Conventional thermal	19.8	0.9		1.8	0.9		0.4		7.4		1.5	0.6	6.3
Nuclear	7.2					5.9							1.3
E.2.b. Hydroel. generating sets of 50 MW or more	2.7				0.4		0.7		0.7			0.9	
C. PROJECTED (2)													
E.1.c. Thermal generating sets of 200 MW or more of which	30.6		1.2	2.9		1.5	1.5	0.5	5.6		5.2	1.5	10.7
Conventional thermal	27.8		1.2	1.6			1.5	0.5	5.6		5.2	1.5	10.7
Nuclear	2.8			1.3		1.5							
E.2.c. Hydroel. generating sets of 50MW or more	2.6				0.1		0.3		1.8			0.4	

Annex 1

(1) Source : Estimated on the basis of Eurostat publications

(2) Source : Modifications received by the Commission by virtue of Council Regulations N°s 1056/72 and 1215/76

21/10/93

E.1. THERMAL POWER STATIONS (including nuclear power stations)  
Generating sets with a capacity of 200 MW or more

By country and planned year of commissioning - Position at 1.1.93

Pairs of figures : number of sets and MW of total capacity

COUNTRY	Commissioned during 1992	Total		of which : planned year of commissioning (under construction and planning)											
		Under Construction	Planned	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	>2002	unknown
EUR-12 of which :	9- 4950	44-26982	73-30562	15- 7368	5- 3600	16- 7723	23-11429	13- 6826	9- 3684	14- 7965	9- 2855	6- 1800	1- 660	4- 3034	2- 600
Belgique		2- 920		2- 920											
Denmark	1- 405		3- 1211				1- 350		1- 436	1- 425					
BR Deutschland	1- 553	4- 1780	4- 2897	1- 480	1- 500	3- 1235		2- 1162		1- 1300					
Espana		2- 888					1- 338	1- 550							
France	2- 1582	4- 5911	1- 1500	1- 1363			2- 3032	1- 1516		1- 1500					
Hellas		1- 350	4- 1500	1- 300		1- 300		1- 350	1- 600			1- 300			
Ireland			1- 460				1- 460								
Italy	4- 1960	14- 7410	19- 5600	2- 980		2- 1010	6- 2470	2- 1010	3- 930	7- 2390	7- 2380	2- 520	1- 660	1- 660	
Luxemburg															
Netherlands		3- 1450	17- 5215	2- 850	1- 600	4- 1205	5- 1455	1- 250	1- 250	1- 600	2- 475	3- 980			
Portugal		2- 616	4- 1516	1- 308		1- 308	1- 450	1- 308	2- 758						
United Kingdom	1- 450	12- 7657	20-10663	5- 2167	3- 2500	5- 3665	6- 2874	4- 1680	1- 710	3- 1750				3- 2374	2- 600

Annex

E.1. THERMAL POWER STATIONS  
 Generating sets with a capacity of 200 MW or more  
 By country and by TYPE OF COOLING SYSTEM  
 Position at 1.1.93

Pairs of figures : number of sets and MW of total capacity

COUNTRY	POWER PLANT UNDER CONSTRUCTION	of which: by cooling system						PROJECTED POWER PLANT	of which: by cooling system					
		fresh water			sea or estuarine	tower	other & unknown		fresh water			sea or estuarine	tower	other & unknown
		fresh water	river	river + tower					fresh water	river	river + towe			
EUR - 12 conventional nuclear of which :	39-19751 5- 7231	5- 2087	4- 2130 1- 1516	1- 1363	12- 6710 1- 1320	11- 5306 2- 3032	7- 3518	71-27762 2- 2800	13- 4948	4- 950	1- 650	19- 6155 1- 1500	21- 9206 1- 1300	13- 5853
Belgique conventional	2- 920						2- 920							
Denmark conventional								3- 1211	3- 1211					
BR Deutschland conventional nuclear	4- 1780	3- 1380				1- 400		3- 1597 1- 1300	3- 1597				1- 1300	
Espana conventional	2- 888													2- 888
France nuclear	4- 5911		1- 1516	1- 1363				1- 1500				1- 1500		
Hellas conventional	1- 350							1- 350	4- 1500					4- 1500
Ireland conventional									1- 460			1- 460		
Italy conventional	14- 7410				12- 6710	2- 700		19- 5600	7- 2140			4- 980	8- 2480	
Netherlands conventional	3- 1450		3- 1450							4- 950		13- 4265		
Portugal conventional	2- 616					2- 616		4- 1516					4- 1516	
United Kingdom conventional nuclear	11- 6337 1- 1320	2- 707	1- 680		1- 1320	6- 3590	2- 1360	20-10663			1- 650	1- 450	9- 5210	9- 4353

E.9. PROJECTED THERMAL POWER STATIONS BY DECISIONAL STATUS  
 Generating sets with a capacity of 200 MW or more  
 Situation 1.1.93

Pairs of figures : number of sets and MW of total capacity

COUNTRY	Fuel	Total projected	Firm (decided)	Decisional process incomplete	for which decisions have NOT been taken for					Possible in study	Status unknown or not reported	
					Site	Main contractor	Capacity	Type of fuel	Start of work date			Commi-ssioning
EUR - 12 conventional nuclear of which :		71-27762 2- 2800		40-15790	4- 1240	23- 8114	2- 770		11- 5666		1- 350	30-11622 2- 2800
Denmark conventional	NGAS (NATURAL GAS) COAL/OIL	1- 436 2- 775		1- 350		1- 350						1- 436 1- 425
BR Deutschland conventional nuclear	COAL (STEAM COAL) COAL/NGAS	2- 1185 1- 412 1- 1300										2- 1185 1- 412 1- 1300
France nuclear		1- 1500										1- 1500
Hellas conventional	LIGN (LIGNITE & PEAT) UNKNOWN OIL/NGAS	1- 300 1- 600 2- 600										1- 300 1- 600 2- 600
Ireland conventional	OIL/NGAS	1- 460		1- 460					1- 460			
Italy conventional	OIL/NGAS COAL/OIL	16- 4640 3- 960		15- 4290 3- 960	2- 640	15- 4290	1- 320				1- 350	
Netherlands conventional	NGAS (NATURAL GAS) COAL/NGAS	16- 4615 1- 600										16- 4615 1- 600
Portugal conventional	COAL (STEAM COAL) NGAS (NATURAL GAS)	2- 616 2- 900		2- 616 2- 900					2- 616 2- 900			
United Kingdom conventional	NGAS (NATURAL GAS) UNKNOWN DIST (DISTILATES) OIL/NGAS NGAS/DGAS	12- 6959 2- 600 1- 450 4- 1580 1- 1074		8- 4510 2- 600 1- 450 4- 1580 1- 1074	2- 600	3- 1200	1- 450		5- 3310 1- 380			4- 2449

Annex 4

BALANCE SHEET OF INVESTMENT PROJECTS  
IN CONVENTIONAL THERMAL POWER STATIONS (excluding nuclear)  
IN THE COMMUNITY (E.1.)  
- Generating sets with a capacity of 200 MW or more -

Pairs of figures :  
(Number of sets) and MW of corresponding  
total capacity

	In service	Under construction	Planned
EUR - 12			
A1. POSITION AT 1.1.1992		+ (35) + 16823	+ (86) + 35729
B1. EVOLUTION DURING 1992			
1. Plant commissioned	+ (8) + 3568	- (-8) - 3568	
2. Beginning of construction (plant reported planned at 1.1.92)		+ (9) + 5044	- (-9) - 5044
3. Projects withdrawn		- (-1) - 340	- (-24) - 8685
4a. New projects not reported planned at 1.1.92		+ (4) + 1338	+ (18) + 6110
4b. Construction halted (conversion a.o.), returned to planning phase			
5. Size modifications, adjustments		+ (6) + 454	+ (12) - 348
A2. POSITION AT 1.1.1993		+ (39) + 19751	+ (71) + 27762

Annex 5



E.1. NUCLEAR POWER STATIONS  
Generating sets with a capacity of 200 MW or more

By country and planned year of commissioning - Position at 1.1.93

Pairs of figures : number of sets and MW of total capacity

COUNTRY	Commissioned during 1992	Total		of which : planned year of commissioning (under construction and planning)											
		Under Construction	Planned	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	>2002	unknown
EUR-12 of which :	1- 1382	5- 7231	2- 2800	1-1363	1-1320	0- 0	2-3032	1-1516	0- 0	2-2800	0- 0	0- 0	0- 0	0- 0	0- 0
Belgique															
Denmark															
BR Deutschland			1- 1300							1-1300					
Espana															
France	1- 1382	4- 5911	1- 1500	1-1363			2-3032	1-1516		1-1500					
Hellas															
Ireland															
Italy															
Luxemburg															
Netherlands															
Portugal															
United Kingdom		1- 1320			1-1320										

Annex 6

E.1. NUCLEAR POWER STATIONS - continued  
 By reactor type, country and size of sets  
 Situation at 1.1.93

Pairs of figures : number of sets and MW of total capacity

Reactor type	Country	Size of sets MWe	Total	Under construction	Planned
TOTAL OF ALL TYPES of which :	COMMUNITY		7-10031	5- 7231	2- 2800
PRESSURIZED WATER	BR Deutschland	1300	1- 1300		1- 1300
	France	1516	3- 4548	3- 4548	
		1363	1- 1363	1- 1363	
		1500	1- 1500		1- 1500
ADVANCED GAS-COOLED	United Kingdom	1320	1- 1320	1- 1320	

Annex 7

BALANCE SHEET OF INVESTMENT PROJECTS  
 IN NUCLEAR THERMAL POWER STATIONS  
 IN THE COMMUNITY (E.1.)  
 - Generating sets with a capacity of 200 MW or more -

Pairs of figures :  
 (Number of sets) and MW of corresponding  
 total capacity

	In service	Under construction	Planned
EUR - 12			
A1. POSITION AT 1.1.1992		+ (6)	+ (2)
		+ 7443	+ 2816
B1. EVOLUTION DURING 1992			
1. Plant commissioned	+ (1)	- (-1)	
	+ 1382	- 1382	
2. Beginning of construction (plant reported planned at 1.1.92)		+ (1)	- (-1)
		+ 1516	- 1516
3. Projects withdrawn		- (-1)	
		- 346	
4a. New projects not reported planned at 1.1.92			+ (1)
			+ 1500
4b. Construction halted (conversion a.o.), returned to planning phase			
5. Size modifications, adjustments			
A2. POSITION AT 1.1.1993		+ (5)	+ (2)
		+ 7231	+ 2800

Annex 8

E.2. HYDRO-ELECTRIC POWER STATIONS  
 Generating plant of 50 MW or more  
 By country and planned year of commissioning  
 Position at 1.1.93

Pairs of figures : number of sets and MW of total capacity

Country and category	Commissioned during 1992	Total		of which planning year of commissioning (under construction and planning)							
		under construction	planned	1993	1994	1995	1996	1997	1998	>1998	unknown
COMMUNITY of which :	1- 250	20- 2706	24- 2560	2- 850	2- 208	4- 470	9- 871	1- 56	8- 665	18- 2146	0- 0
SEASONAL STORAGE		9- 1317	2- 220	1- 600	1- 126	2- 220	6- 440		1- 151		
SHORT-THERM STORAGE			6- 449						2- 142	4- 307	
RUN-OF-RIVER		1- 194	5- 631			1- 194			2- 132	3- 499	
PUMPED STORAGE	1- 250	2- 332		1- 250	1- 82						
SEASONAL ST + PUMPED ST.		5- 583	8- 1000			1- 56	2- 331	1- 56		9- 1140	
SHORT-TERM ST + PUMPED ST.											
UNKNOWN OR NOT REPORTED		3- 280	3- 260				1- 100		3- 240	2- 200	
España											
SEASONAL STORAGE		2- 277			1- 126				1- 151		
SHORT-THERM STORAGE			1- 60						1- 60		
PUMPED STORAGE		1- 82			1- 82						
Hellas											
SEASONAL STORAGE		6- 440					6- 440				
UNKNOWN OR NOT REPORTED		3- 280	3- 260				1- 100		3- 240	2- 200	
Italy											
SEASONAL STORAGE			2- 220			2- 220					
SHORT-THERM STORAGE			5- 389						1- 82	4- 307	
RUN-OF-RIVER			3- 200						2- 132	1- 68	
PUMPED STORAGE	1- 250	1- 250		1- 250							
SEASONAL ST + PUMPED ST.		4- 443	8- 1000			1- 56	2- 331	1- 56		8- 1000	
Portugal											
SEASONAL STORAGE		1- 600		1- 600							
RUN-OF-RIVER		1- 194	2- 431			1- 194				2- 431	
SEASONAL ST + PUMPED ST.		1- 140								1- 140	

Annex 9

BALANCE SHEET OF INVESTMENT PROJECTS  
IN HYDRO-ELECTRICAL POWER STATIONS  
IN THE COMMUNITY (E.2.)  
- Generating sets with a capacity of 50 MW or more -

Pairs of figures :  
(Number of sets) and MW of corresponding  
total capacity

	In service	Under construction	Planned
EUR - 12			
A1. POSITION AT 1.1.1992		+ (20) + 2816	+ (24) + 2637
B1. EVOLUTION DURING 1992			
1. Plant commissioned	+ (1) + 250	- (-1) - 250	
2. Beginning of construction (plant reported planned at 1.1.92)		+ (1) + 140	- (-1) - 140
3. Projects withdrawn			
4. New projects not reported projected at 1.1.92			+ (1) + 60
5. Adjustements			+ (1) + 3
A2. POSITION AT 1.1.1993		+ (20) + 2706	+ (24) + 2560

Annex 10

E.3./E.4. TRANSMISSION LINES AND CABLES  
By country and planned year of commissioning  
Position at 1.1.93

Circuit - Km

Country	Voltage (kV)	Commissioned during 1992	Total		of which planning year of commissioning (under construction and planning)								
			under construction	planned	1993	1994	1995	1996	1997	1998	1999	>1999	Unknown
Belgique	UNDERGROUND 150	4.8											
	OVERHEAD 380	22.8		127.0	52.0	75.0							
Denmark	OVERHEAD 400	9.0	7.0	107.0		7.0		100.0	7.0				
BR Deutschland	SUBMARINE 420			250.0		250.0							
	UNDERGROUND 110 OVERHEAD 380 420	204.5	3.6 46.4 136.0	717.2	279.1	15.7	124.5 136.0	96.0	166.3	74.0	8.0		
Espana	SUBMARINE 400 OVERHEAD 400	302.0	26.0 1137.0	648.0	315.0	444.0	302.0	415.0	309.0				
France	OVERHEAD 400	150.0	40.0	1260.0	65.0	72.0	191.0	191.0	171.0	565.0	45.0		
Hellas	SUBMARINE 150			26.5		17.5	9.0						
	OVERHEAD 380 400		368.0	520.0	368.0		380.0		110.0 140.0				
Ireland	UNDERGROUND 220			14.0				14.0					
Italy	UNDERGROUND 220			3.5			3.5						
	OVERHEAD 220 380 400AC	137.0	6.4 360.0	2057.5 2.0	6.4 360.0	116.0	629.5	835.0	272.0	205.0 2.0			
Netherlands	SUBMARINE 400			540.0								540.0	
	OVERHEAD 380			165.2				165.2					
Portugal	OVERHEAD												

	400		33.0	133.0	33.0		58.0	75.0					
United Kingdom	SUBMARINE												
	250			62.0			62.0						
	400			0.2		0.2							
	UNDERGROUND												
	132		1.1	9.2	1.1		9.2						
	275		15.0	27.6	15.0					1.3		26.3	
	400			10.6			0.2	0.2		10.2			
	OVERHEAD												
	400	234.9	579.9	802.3	672.3	303.9	18.0	143.6	31.6	123.0	53.8	36.0	

Annex 11

## AGGREGATED DATA FOR THE NATURAL GAS SECTOR OF THE COMMUNITY

### NG Pipelines

Natural gas pipelines with a capacity of not less than  $10^9 \text{M}^3/\text{year}$ ; situation at 1.1.1993 in the Community and the Member States :

- NG 1 : existing pipelines
- NG 2 : pipelines under construction
- NG 3 : planned pipelines

### LNG Terminals

Facilities for importing liquified natural gas; situation at 1.1.1993 in the Community and the Member States :

- NG 4 : existing terminals
- NG 5 : terminals under construction and planned.

### Underground natural gas storage

Storage facilities with a minimum capacity of 150 million  $\text{M}^3$ ; situation at 1.1.1993 in the Community and the Member States :

- NG 6 : existing, under construction and planned storage facilities.



INVESTMENT IN THE NATURAL GAS SECTOR  
PIPELINES WITH A CAPACITY NOT LESS THAN 10<sup>9</sup>M<sup>3</sup>/YEAR  
SITUATION AT 1.1.1993

in km

COUNTRY	DIAMETER			TOTAL
	300-599 mm	600-899 mm	900 et plus mm	
<b>A. EXISTING</b>				
- Germany	3 057	3 631	4 529	11 217
- France	5 428	4 401	842	10 671
- Italy	2 719	2 164	1 623	6 506
- Netherlands	521	1 437	1 973	3 931
- Belgium	442	386	742	1 570
- United Kingdom	796	3 865	1 127	5 788
- Ireland	731	-	-	731
- Denmark	417	638	-	1 055
- Spain	388	1 981	-	2 369
- Greece	-	-	-	-
<b>Total km</b>	<b>14 499</b>	<b>18 503</b>	<b>10 836</b>	<b>43 838</b>

INVESTMENT IN THE NATURAL GAS SECTOR  
PIPELINES WITH A CAPACITY NOT LESS THAN 10<sup>9</sup>M<sup>3</sup>/YEAR  
SITUATION AT 1.1.1993

in km

COUNTRY	DIAMETER			TOTAL
	300-599 mm	600-899 mm	900 et plus mm	
<b>B. UNDER CONSTRUCTION</b>				
- Germany	-	31	-	31
- France	-	-	-	-
- Italy	-	31	1 048	1 079
- Netherlands	-	-	-	-
- Belgium	100	-	-	100
- United Kingdom	31	128	99	258
- Ireland	-	-	-	-
- Denmark	-	-	-	-
- Spain	825	375	250	1 450
- Greece	-	-	-	-
<b>Total km</b>	<b>956</b>	<b>565</b>	<b>1 397</b>	<b>2 918</b>

INVESTMENT IN THE NATURAL GAS SECTOR  
PIPELINES WITH A CAPACITY NOT LESS THAN 10<sup>9</sup>M<sup>3</sup>/YEAR  
SITUATION AT 1.1.1993

in km

COUNTRY	DIAMETER			TOTAL
	300-599 mm	600-899 mm	900 et plus mm	
<b>C. PLANNED</b>				
- Germany	90	279	683	1 052
- France	-	-	-	-
- Italy	-	-	539	539
- Netherlands	-	-	-	-
- Belgium	-	-	-	-
- United Kingdom	-	-	-	-
- Ireland	294	-	-	294
- Denmark	-	-	-	-
- Spain	60	835	-	895
- Greece	390	-	-	390
- Portugal	44	536	-	580
<b>Total km</b>	<b>488</b>	<b>1 650</b>	<b>1 222</b>	<b>3 360</b>

NG-7

INVESTMENT IN THE NATURAL GAS SECTOR  
 TERMINALS FOR LNG IMPORTS  
 SITUATION AT 1.1.1993

COUNTRY AND LOCATION	COMMISSION DATE	LNG STORAGE CAPACITY LIQUID (m <sup>3</sup> )	MAXIMUM REGASIFICATION (m <sup>3</sup> /h)	UCV AFTER REGASIFICATION (Kjoules/m <sup>3</sup> )	ORIGIN OF LIQUID NATURAL GAS
<b>A. EXISTING</b>					
<b>1. <u>France</u></b>					
- Fos-sur-Mer	1972	150 000	1 350 000	42 300	Algeria
- Montoir	1962	360 000	1 600 000	43 500	Algeria
<b>2. <u>Italy</u></b>					
- Panigaglia (La Spezia)	1971	100 000	460 000	44 855	-
<b>3. <u>United Kingdom</u></b>					
- Convey Island	1964	39 000	210 000	44 900	-
<b>4. <u>Spain</u></b>					
- Barcelona	1969	240 000	1 300 000	44 000	Algeria/Lybia
- Huelva	1988	100 000	300 000	44 000	Algeria
<b>5. <u>Belgium</u></b>					
- Zeebrugge	1987	261 000	700 000	38 000	Algeria
<b>TOTAL EUR</b>		<b>1 250 000</b>	<b>5 920 000</b>		

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INVESTMENT IN THE NATURAL GAS SECTOR  
 TERMINALS FOR LNG IMPORTS  
 SITUATION AT 1.1.1993

COUNTRY AND LOCATION	COMMISSION DATE	LNG STORAGE CAPACITY LIQUID (m <sup>3</sup> )	MAXIMUM REGASIFICATION (m <sup>3</sup> /h)	UCV AFTER REGASIFICATION (Kjoules/m <sup>3</sup> )	ORIGIN OF LIQUID NATURAL GAS
<b>B. UNDER CONSTRUCTION</b>					
1. <u>Spain</u>					
- Huelva	-	-	-	-	Nigeria
- Aurin-Jacq	1994	340	197 500	44 000	Norway
- Planta Ferrol	1997	200 000	400 000	44 000	Nigeria
<b>TOTAL EUR</b>		<b>200 340</b>	<b>597 500</b>		
<b>C. PLANNED</b>					
1. <u>Germany</u>					
- Wilhelmshaven	-	240 000	1 000 000	45 220	Nigeria/Algeria
2. <u>Greece</u>					
- Revithouso	1997/8	130 000	200 000	44 000	Algeria
<b>TOTAL EUR</b>		<b>370 000</b>	<b>1 200 000</b>		

28 June 1994  
XVII.B.2 - MB/cb

INVESTMENT IN THE NATURAL GAS SECTOR (SITUATION AT 1.1.1993)  
UNDERGROUND NATURAL GAS STORAGE  
WITH A MINIMUM CAPACITY OF 150 MILLION M<sup>3</sup>

COUNTRY	CAPACITY	
	OVERALL 10 <sup>6</sup> M <sup>3</sup>	USEFUL 10 <sup>6</sup> M <sup>3</sup>
<b>A. EXISTING</b>		
1. Belgium	720	350
2. Denmark	590	275
3. France	19 800	8 200
4. Germany	13 721	7 744
5. Italy	20 713	11 750
6. United Kingdom	12 300	2 799
TOTAL	67 844	31 118
<b>B. UNDER CONSTRUCTION</b>		
1. Belgium	130	120
2. Denmark	890	360
3. Germany	3 813	2 020
4. United Kingdom	130	931
5. France	1 500	600
TOTAL	6 463	4 031
<b>C. PLANNED</b>		
1. Belgium	300	150
2. Germany	1 400	750
TOTAL	1 700	900

### Refining capacity

Primary distillation and conversion capacity in the Community and the Member States:

- OIL 1 : existing capacity at 1.1.1992
- OIL 2 : existing capacity at 1.1.1993
- OIL 3 : future net expansion and net reduction

### Conversion capacity

- OIL 4 : evolution capacity in EUR 12 since 1980

### Desulphurisation capacity

- OIL 5 : of middle distillates

### Distillation capacity

- OIL 6 : evolution of capacity in EUR 12 since 1980 (graphic figure)

### Refining upgrading capacity

- OIL 7 : evolution of capacity in cat cracking equivalent in the EUR 12 since 1980

### Unleaded gasoline

- OIL 8 : unleaded gasoline sales in the EEC 12 since 1987
- OIL 9 : (graphic figure).

# REFINING CAPACITY IN THE E.U. AT 1.1.1992

(million metric tons/year)

	ATMOS. DIST.	REFOR.	HYDRO CRACK.	CAT. CRACK.	THERM. CRACK.	VIS- BREAK.	COKING
BE	35.2	4.6	-	5.6	-	4.0	-
DK	9.0	1.4	-	-	1.9	2.1	-
DE	110.0	17.8	8.2	12.6	3.7	11.1	4.9
EL	17.7	2.1	1.5	3.0	-	2.5	-
ES	59.5	7.8	0.7	7.7	-	8.4	1.5
FR	90.4*	10.5	0.7	17.8	-	9.2	-
IR	2.8	0.6	-	-	-	-	-
IT	121.1	12.7	3.5	15.3	4.4	16.2	2.5
NL	61.0	7.7	3.3	6.9	3.1	4.1	2.0
PO	14.4	2.2	0.5	0.5	-	-	-
UK	89.1	15.6	2.5	24.4	2.2	3.1	3.1
EU	610.2	83.0	20.9	93.8	15.3	60.7	14.0

\* OF WHICH 5.8 MIO TONS IN RESERVE, IMMEDIATELY USEABLE

SOURCES : NATIONAL ADMINISTRATIONS & EC REGULATION 1056/72



# REFINING CAPACITY IN THE E.U. AT 1.1.1993

(million metric tons/year)

	ATMOS. DIST.	REFOR.	HYDRO CRACK.	CAT. CRACK.	THERM. CRACK.	VIS- BREAK.	COKING
BE	34.4	4.7	-	5.6	-	4.0	-
DK	9.0	1.4	-	-	1.9	2.1	-
DE	110.8	18.0	8.4	13.0	3.7	10.9	4.9
EL	17.7	2.1	1.5	3.0	-	2.5	-
ES	59.5	8.0	0.7	8.4	-	8.4	1.5
FR	91.0	11.0	0.7	17.8	-	9.3	-
IR	2.8	0.6	-	-	-	-	-
IT	117.1	12.2	3.5	14.8	4.4	16.2	2.5
NL	62.6	8.0	3.3	7.3	3.1	4.1	2.0
PO	14.4	2.2	0.5	0.5	-	-	-
UK	89.9	16.0	2.5	25.1	2.2	3.1	3.1
EU	609.2	84.2	21.1	95.5	15.3	60.6	14.0

\* OF WHICH 5.8 MIO TONS IN RESERVE, IMMEDIATELY USEABLE

SOURCES : NATIONAL ADMINISTRATIONS & EC REGULATION 1056/72

## FUTURE NET EXPANSION OR NET REDUCTION IN THE REFINING CAPACITY OF THE E.U.

	(thousand metric tons/year)			AFTER OR DATE NOT DEFINED
	1993	1994	1995	
ATMOS. DIST.	+ 2495*	+ 1600	+ 1000	- 8560
REFORMING	+ 468	+ 1170	+ 85	+ 600
HYDROCRACK.	+ 220	+ 1800		- 2180
CAT. CRACK.	+ 3135**	+ 710	+ 580	
THERM. CRACK.	+ 1420	+ 50	+ 610	
VISBREAKING	- 20	+ 1430	- 1770	- 1300
COKING	+ 150			+ 1000
DESULPHURIS. OF MID. DIST.	+ 1940	+ 2875	+ 2800	+ 1830

\* OF WHICH 500 TH. TONS OF CDU DEBOTTLENECKING  
AND 835 TH. TONS OF TOPPING

\*\* OF WHICH 320 TH. TONS OF DEBOTTLENECKING

SOURCE : EC REGULATION 1056/72 - QUESTIONNAIRES  
OF BEGINNING 1993

# EUR12 - CONVERSION CAPACITY

(million metric tons/year)

	1980	1985	1990	1992	1993
CAT. CRACKING	47.6	83.1	83.3	93.8	95.5
VISBREAKING	24.9	46.1	57.5	60.7	60.6
HYDROCRACKING	5.8	10.6	22.1	20.9	21.1
THERM. CRACK. )					
COKING )	22.2	26.3	26.5	29.3	29.3
FLEXICOKING )					
TOTAL CAPACITY	100.5	166.1	189.4	204.7	206.5
CATCRACK. EQUIV.*	81	135	155	175	177
AS % CDU CAPACITY	9	21	27	29	29

\* Ratios used for 1992 & 1993 are : Visbreaker 0.33 -  
Hydrocracker 1.3 - Thermal Cracker 0.65 - Coker 1.7

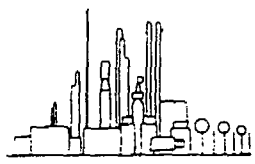
SOURCES : NATIONAL ADMINISTRATIONS & EC REGULATION 1056/72

## EU-DESULPHURISATION CAPACITY OF MIDDLE DISTILLATES

(million metric tons/year)

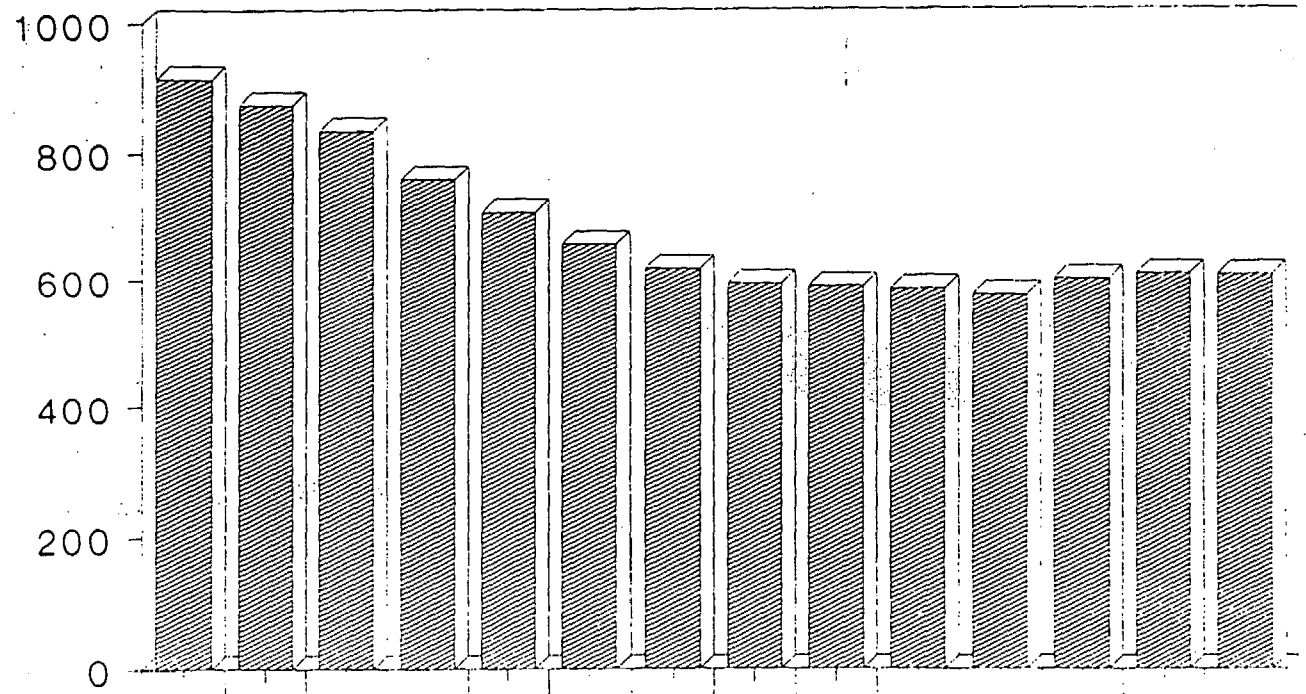
	1.1.1992	1.1.1993
BE	13.7	13.7
DK	2.2	2.4
DE	28.2	28.2
EL	3.6	3.6
ES	14.4	14.5
FR	23.3	23.8
IR	0.3	0.3
IT	26.3	27.2
NL	14.8	15.2
PO	2.8	1.9
UK	20.6	21.3
EU	150.2	152.1

SOURCES: NATIONAL ADMINISTRATIONS & EC REG.1056/72



# EUR-12 REFINING DISTILLATION CAPACITY

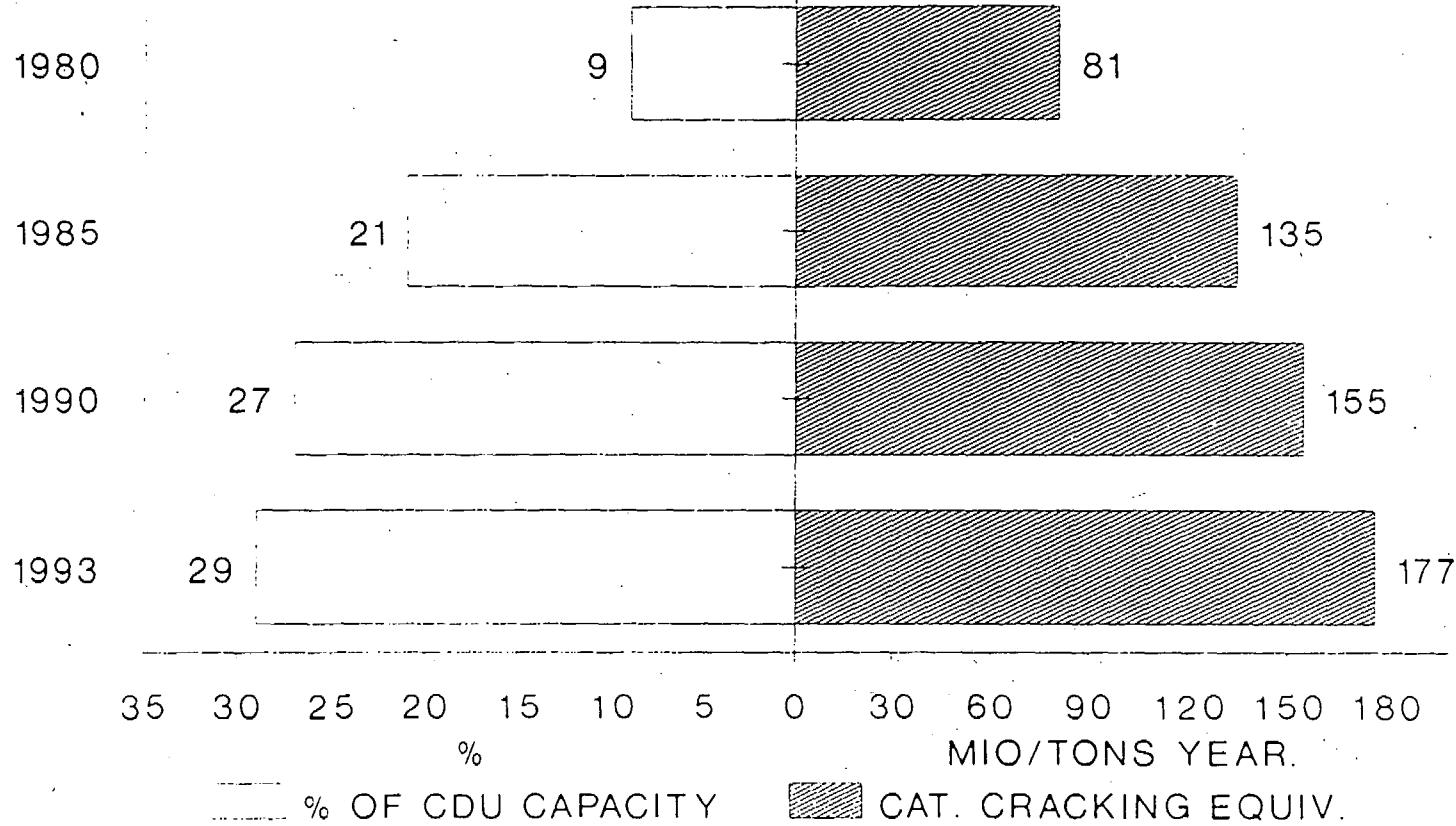
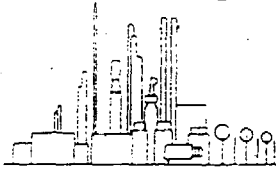
MIO TONS/YEAR



EUR-12	915	875	835	760	708	658	619	595	591	587	577	602	610	609
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Sources : Nat. Admin. & Reg.1056/72

# EUR-12 REFINING UPGRADING CAPACITY IN CAT. CRACKING EQUIVALENT



Sources : Nat. Admin. & Reg.1056/72

## UNLEADED GASOLINE

Gasoline sales		Unleaded	Share
EEC 12	1000 t	1000 t	%
1987	97.893	7.543	7.7
1988	101.065	13.347	13.2
1989	102.619	22.999	22.4
1990	104.831	33.648	32.1
1991	109.975	44.803	40.7
1992	112.285	52.890	47.1
1993	112.000	59.700	53.3
1993/92	%	-0.3	12.7

