



INTERNATIONAL ENERGY AGENCY

KEY WORLD ENERGY STATISTICS

2006

KEY WORLD ENERGY STATISTICS

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**IEA participating
countries are**

**Australia
Austria
Belgium
Canada
Czech Republic
Denmark
Finland
France
Germany
Greece
Hungary
Ireland
Italy
Japan
Korea
Luxembourg
Netherlands
New Zealand
Norway
Portugal
Spain
Sweden
Switzerland
Turkey
United Kingdom
United States**

The International Energy Agency

The IEA, which was established in November 1974, has over the years gained recognition as one of the world's most authoritative sources for energy statistics. Its massive annual studies of oil, natural gas, coal, electricity and renewables are indispensable tools for energy policy makers, companies involved in the energy field and scholars.

In 1997 the IEA produced a handy, pocket-sized summary of key energy data. This new edition responds to the enormously positive reaction to the books since then. **Key World Energy Statistics from the IEA** contains timely, clearly-presented data on the supply, transformation and consumption of all major energy sources. The interested businessman, journalist or student will have at his fingertips the annual American production of coal, the electricity consumption in Thailand, the price of diesel oil in South Africa and thousands of other useful energy facts.

Gathering and analysing statistics is one of the IEA's important functions. But the Agency – an autonomous body within the Organisation for Economic Co-operation and Development – also:

- administers a plan to guard Member countries against the risk of a major disruption of oil supplies;
- coordinates national efforts to conserve energy and develop alternative energy sources, as well as to limit pollution and energy-related climate change;
- disseminates information on the world energy market and seeks to promote stable international trade in energy.

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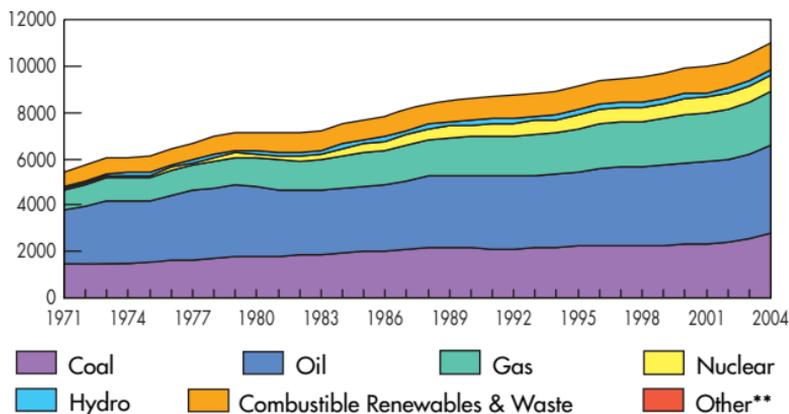
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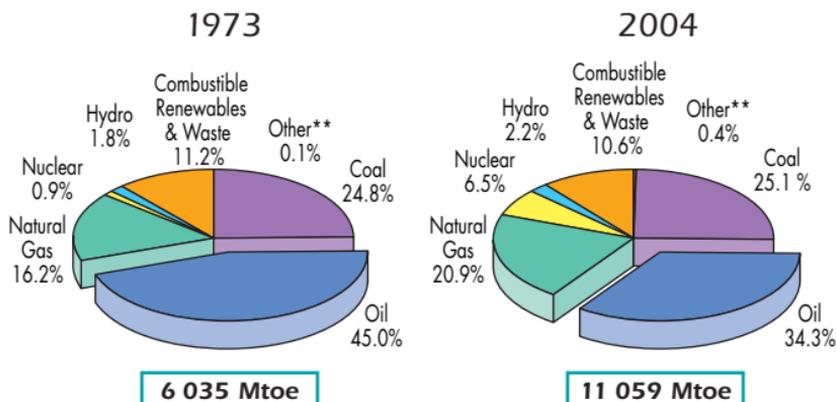
TOTAL PRIMARY ENERGY SUPPLY

The World

Evolution from 1971 to 2004 of World Total Primary Energy Supply* by Fuel (Mtoe)



1973 and 2004 Fuel Shares of TPES*



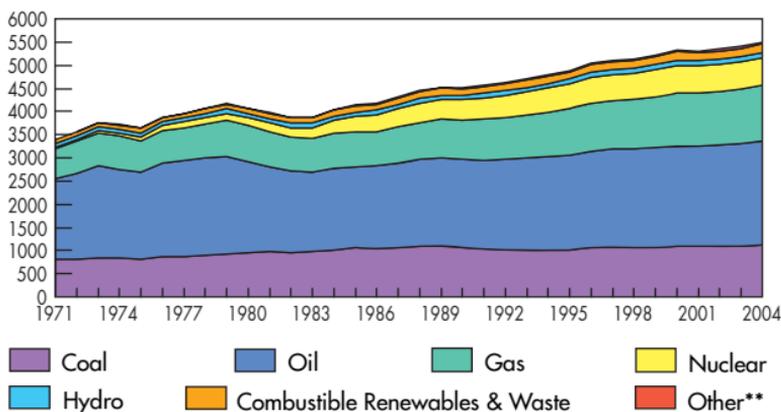
*Excludes international marine bunkers and electricity trade.

**Other includes geothermal, solar, wind, heat, etc.

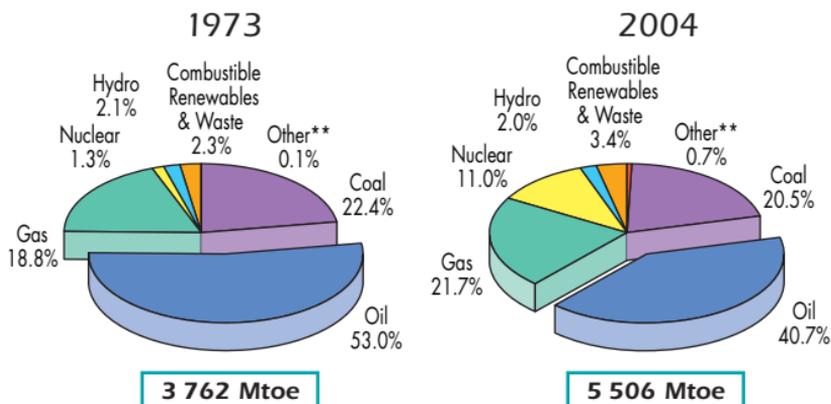
BY FUEL

The OECD

Evolution from 1971 to 2004 of OECD Total Primary Energy Supply* by Fuel (Mtoe)



1973 and 2004 Fuel Shares of TPES*



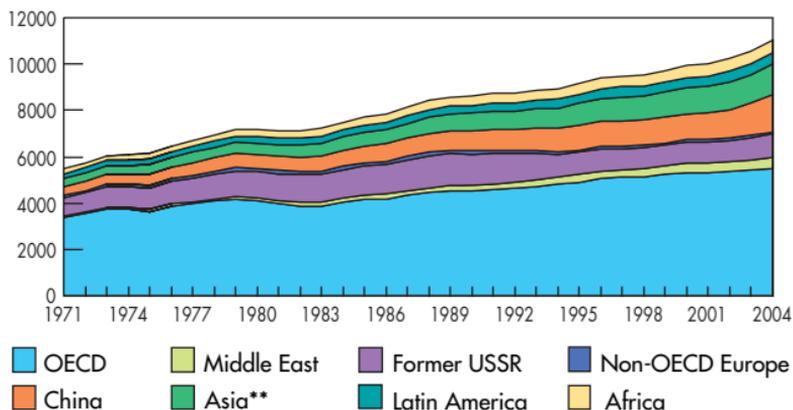
*Excludes electricity trade.

**Other includes geothermal, solar, wind, heat, etc.

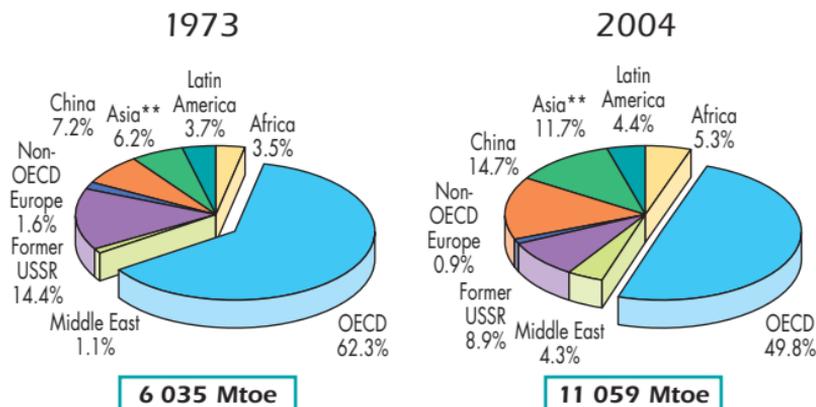
TOTAL PRIMARY ENERGY SUPPLY

The World

Evolution from 1971 to 2004 of World Total Primary Energy Supply* by Region (Mtoe)



1973 and 2004 Regional Shares of TPES*



*Excludes international marine bunkers and electricity trade.

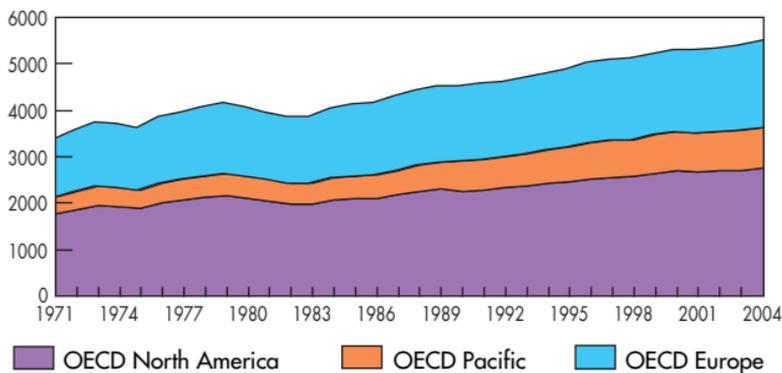
**Asia excludes China.

BY REGION

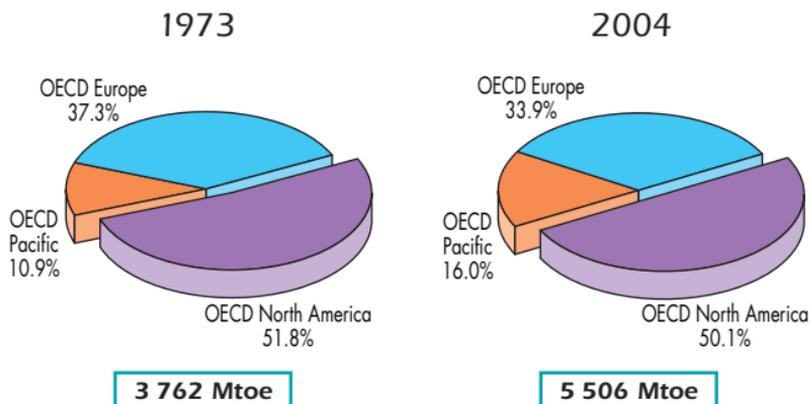
1

The OECD

Evolution from 1971 to 2004 of OECD Total Primary Energy Supply* by Region (Mtoe)



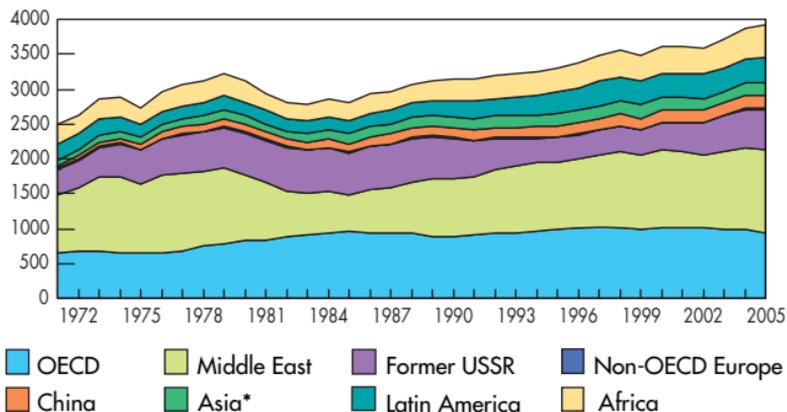
1973 and 2004 Regional Shares of TPES*



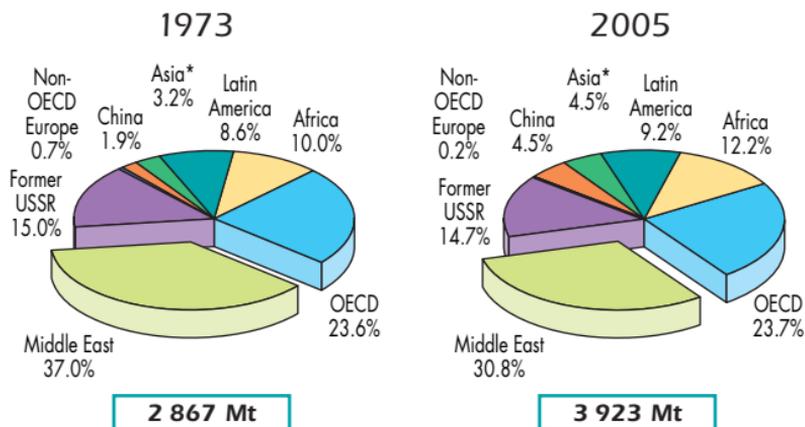
*Excludes electricity trade.

Crude Oil Production

Evolution from 1971 to 2005 of Crude Oil Production by Region (Mt)



1973 and 2005 Regional Shares of Crude Oil Production



*Asia excludes China.

Producers, Exporters and Importers of Crude Oil



Producers	Mt	% of World total
Saudi Arabia	519	13.2
Russia	470	12.0
United States	307	7.8
Islamic Rep. of Iran	205	5.2
Mexico	188	4.8
People's Rep. of China	183	4.7
Venezuela	162	4.1
Canada	143	3.6
Norway	139	3.5
Nigeria	133	3.4
Rest of the World	1 474	37.7
World	3 923	100.0

2005 data

Exporters	Mt
Saudi Arabia	346
Russia	258
Norway	132
Nigeria	123
Islamic Rep. of Iran	122
Mexico	105
United Arab Emirates	95
Venezuela	94
Canada	87
Iraq	75
Rest of the World	716
World	2 153

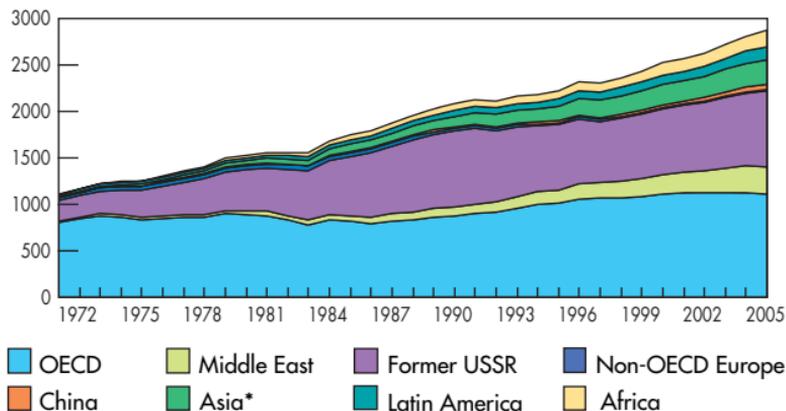
2004 data

Importers	Mt
United States	577
Japan	206
People's Rep. of China	123
Korea	114
Germany	110
India	96
Italy	93
France	85
United Kingdom	63
Netherlands	60
Rest of the World	708
World	2 235

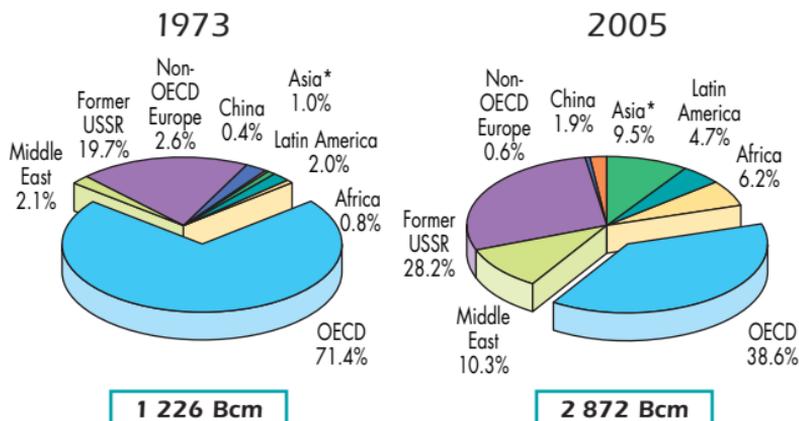
2004 data

Natural Gas Production

Evolution from 1971 to 2005 of Natural Gas Production by Region
(Billion Cubic Metres)



1973 and 2005 Regional Shares of Natural Gas Production



*Asia excludes China.

Producers, Exporters and Importers* of Natural Gas

1



Producers	Mm ³	% of World total
Russia	627 446	21.8
United States	516 614	18.0
Canada	187 164	6.5
Algeria	92 797	3.2
United Kingdom	92 045	3.2
Norway	89 559	3.1
Islamic Rep. of Iran	83 535	2.9
Netherlands	78 804	2.7
Indonesia	77 305	2.7
Saudi Arabia	69 500	2.4
Rest of the World	957 004	33.3
World	2 871 773	100.0

2005 data

Exporters	Mm ³
Russia	203 727
Canada	106 353
Norway	82 801
Algeria	68 638
Netherlands	52 355
Turkmenistan	49 423
Indonesia	36 146
Malaysia	32 614
Qatar	27 992
United States	22 288
Rest of the World	165 646
World	847 983

2005 data

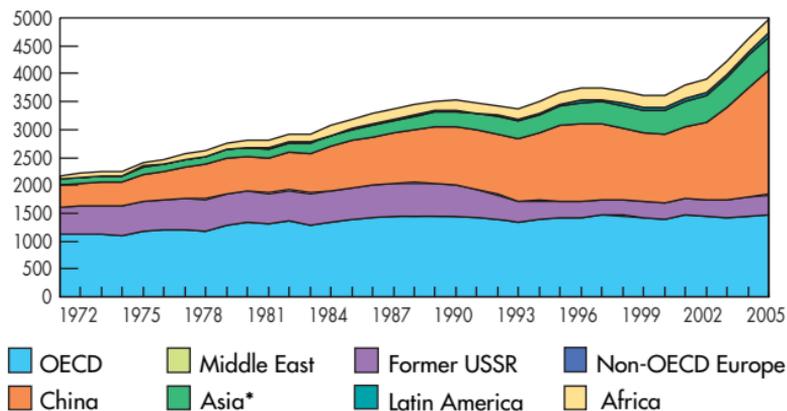
Importers	Mm ³
United States	121 348
Germany	90 700
Japan	80 915
Italy	73 460
Ukraine	62 132
France	46 975
Spain	33 118
Korea	29 494
Turkey	26 572
Netherlands	23 025
Rest of the World	250 140
World	837 879

2005 data

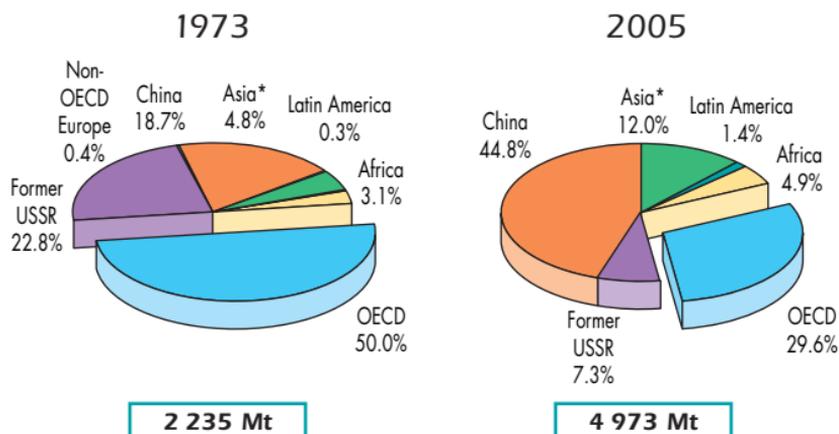
*Exports and imports include pipeline gas and LNG.

Hard Coal Production

Evolution from 1971 to 2005 of Hard Coal Production by Region (Mt)

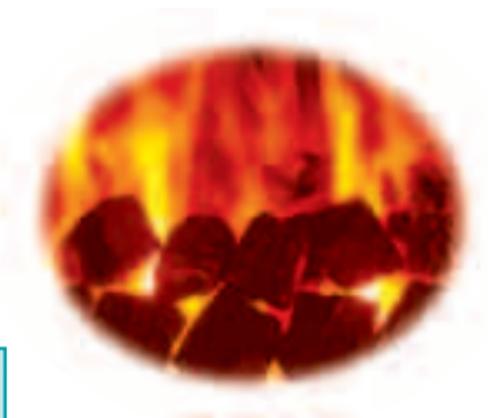


1973 and 2005 Regional Shares of Hard Coal Production



*Asia excludes China.

Producers, Exporters and Importers of Coal



Producers	Hard Coal (Mt)	Brown Coal (Mt)
People's Rep. of China	2 226	*
United States	951	77
India	398	32
Australia	301	71
South Africa	240	75
Russia	222	0
Indonesia	140	178
Poland	98	62
Kazakhstan	79	0
Colombia	61	4
Rest of the World	257	406
World	4 973	905

2005 data

Exporters	Hard Coal (Mt)
Australia	231
Indonesia	108
Russia	76
South Africa	73
People's Rep. of China	72
Colombia	56
United States	45
Canada	28
Poland	21
Kazakhstan	17
Rest of the World	44
World	771

2005 data

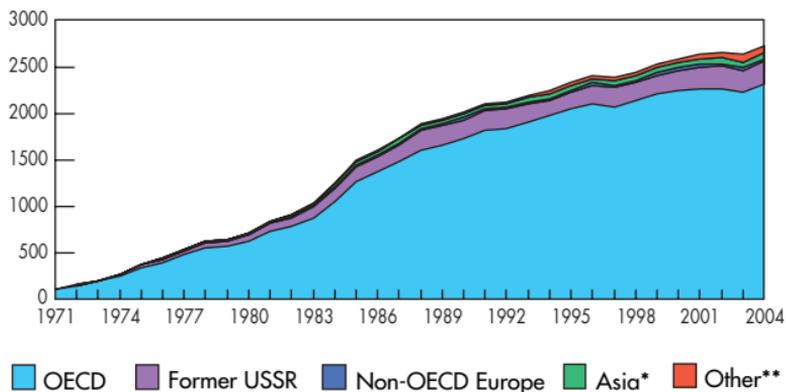
Importers	Hard Coal (Mt)
Japan	178
Korea	77
Chinese Taipei	61
United Kingdom	44
Germany	38
India	37
United States	28
People's Rep. of China	25
Spain	25
Italy	24
Rest of the World	241
World	778

2005 data

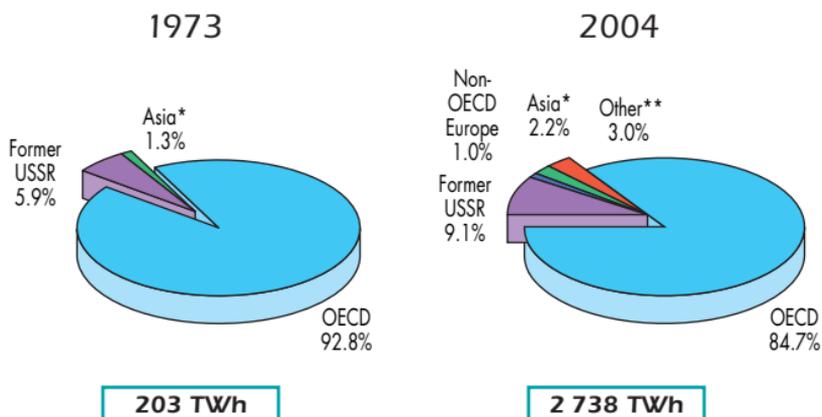
*Included in hard coal.

Nuclear Production

Evolution from 1971 to 2004 of Nuclear Production by Region (TWh)



1973 and 2004 Regional Shares of Nuclear Production



*Asia excludes China.

** Other includes Africa, Latin America & China.

Producers of Nuclear Electricity

1



Producers	TWh	% of World total
United States	813	29.6
France	448	16.4
Japan	282	10.3
Germany	167	6.1
Russia	145	5.3
Korea	131	4.8
Canada	90	3.3
Ukraine	87	3.2
United Kingdom	80	2.9
Sweden	77	2.8
Rest of the World	418	15.3
World	2 738	100.0

2004 data

Installed Capacity	GW
United States	99
France	63
Japan	45
Russia	22
Germany	21
Korea	16
Ukraine	13
Canada	12
United Kingdom	12
Sweden	9
Rest of the World	45
World	357

2004 data
Source: Commissariat à l'Énergie Atomique (France).

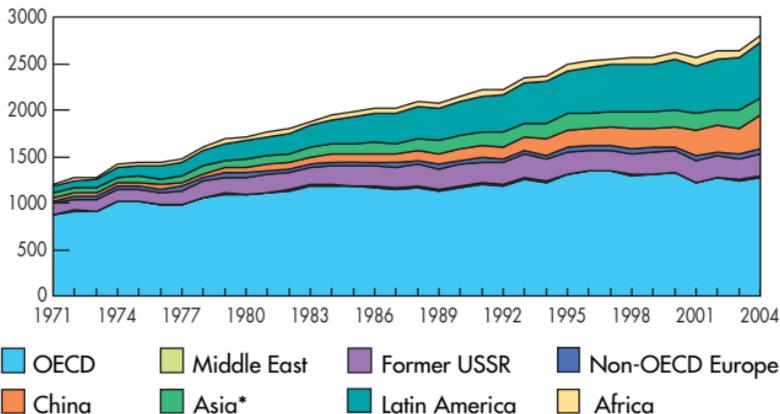
Country (based on first 10 producers)	% of nuclear in total domestic electricity generation
France	78
Sweden	50
Ukraine	48
Korea	37
Germany	28
Japan	26
United Kingdom	20
United States	20
Russia	16
Canada	15
Rest of the World*	8
World	16

2004 data

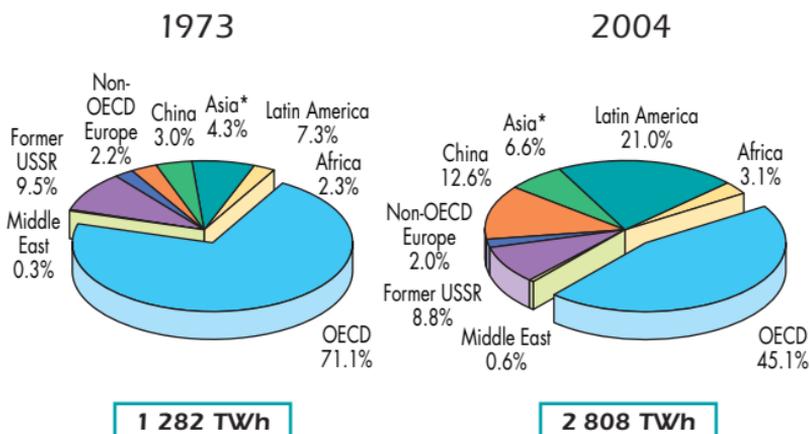
*Excludes countries with no nuclear production.

Hydro Production

Evolution from 1971 to 2004 of Hydro Production by Region (TWh)



1973 and 2004 Regional Shares of Hydro Production



*Asia excludes China.

Producers of Hydro Electricity

1



Producers	TWh	% of World total
People's Rep. of China	354	12.6
Canada	341	12.1
Brazil	321	11.4
United States	271	9.7
Russia	176	6.3
Norway	109	3.9
Japan	94	3.3
India	85	3.0
Venezuela	70	2.5
Sweden	60	2.1
Rest of the World	927	33.1
World	2 808	100.0

2004 data

Installed Capacity (based on production)	GW
United States	99
People's Rep. of China	86
Canada	67
Brazil	59
Japan	46
Russia	44
India	30
Norway	28
France	25
Sweden	16
Rest of the World	307
World	807

2003 data

Sources: United Nations, IEA.

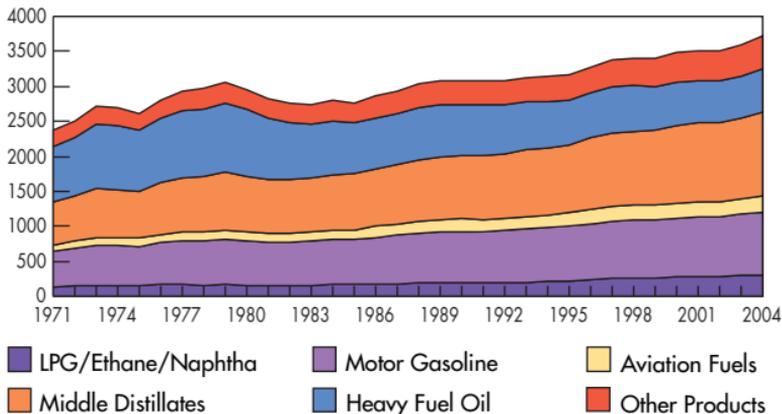
Country (based on first 10 producers)	% of hydro in total domestic electricity generation
Norway	98.8
Brazil	82.8
Venezuela	71.0
Canada	57.0
Sweden	39.6
Russia	18.9
People's Rep. of China	16.1
India	12.7
Japan	8.8
United States	6.5
Rest of the World*	14.2
World	16.1

2004 data

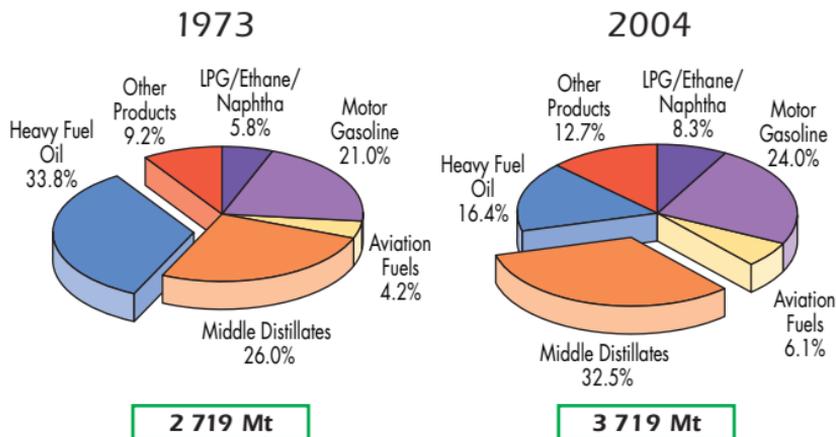
* Excludes countries with no hydro production.

Refining by Product

Evolution from 1971 to 2004 of World Refinery Production by Product (Mt)



1973 and 2004 Shares of Refinery Production by Product



Producers, Exporters and Importers of Petroleum Products

2



Producers	Mt	% of World total
United States	841	22.6
People's Rep. of China	265	7.1
Japan	199	5.4
Russia	191	5.1
India	129	3.5
Germany	120	3.2
Korea	116	3.1
Canada	105	2.8
Italy	98	2.6
Saudi Arabia	96	2.6
Rest of the World	1 559	42.0
World	3 719	100.0

2004 data

Exporters	Mt
Russia	72
Netherlands	71
Saudi Arabia	58
United States	54
Singapore	52
Venezuela	34
Korea	31
Kuwait	31
United Kingdom	30
Italy	24
Rest of the World	435
World	892

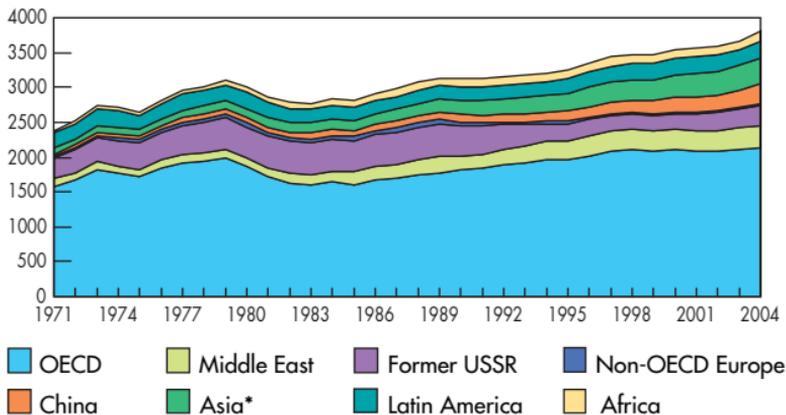
2004 data

Importers	Mt
United States	97
Netherlands	56
Singapore	51
Japan	49
People's Rep. of China	46
Germany	34
France	33
Spain	25
Korea	22
Indonesia	20
Rest of the World	392
World	825

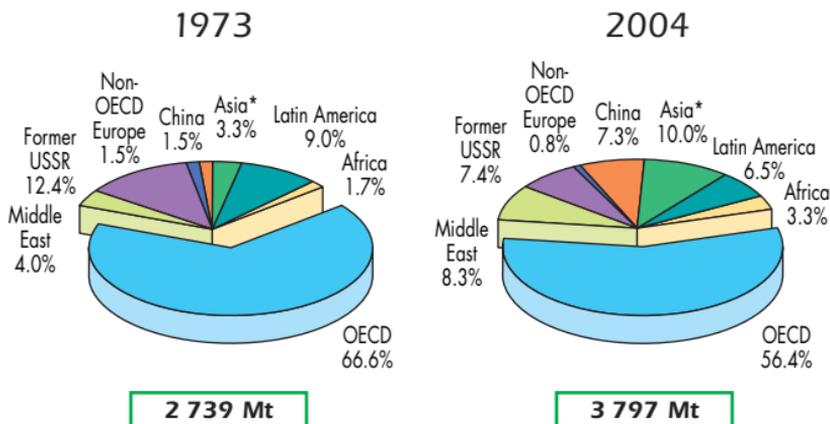
2004 data

Refining by Region

Evolution from 1971 to 2004 of World Refinery Throughput by Region (Mt)



1973 and 2004 Regional Shares of Refinery Throughput



**Asia excludes China.*

Refinery Capacity, Net Exporters and Net Importers of Oil*

2



Crude Distillation Capacity	kb/cd	% of World total
United States	17 130	20.5
Former USSR	8 120	9.7
People's Rep. of China**	6 250	7.5
Japan	4 670	5.6
Korea	2 580	3.1
Germany	2 430	2.9
Italy	2 320	2.8
India	2 250	2.7
Saudi Arabia	2 100	2.5
Canada	2 020	2.4
Rest of the World	33 660	40.3
World	83 530	100.0

2005 data

Net Exporters	Mt
Saudi Arabia	404
Russia	325
Norway	141
Islamic Rep. of Iran	133
Venezuela	128
Nigeria	117
Kuwait	104
United Arab Emirates	100
Mexico	96
Iraq	72
Rest of the World	571

2004 data

Net Importers	Mt
United States	616
Japan	251
People's Rep. of China	147
Germany	119
Korea	105
France	94
India	86
Italy	83
Spain	77
Chinese Taipei	48
Rest of the World	579

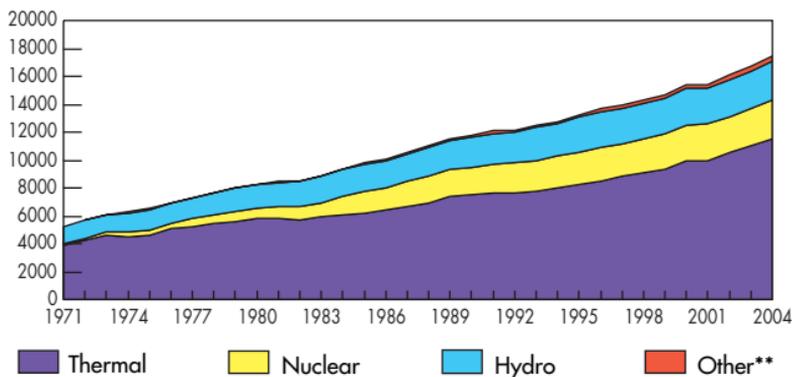
2004 data

*Crude oil and petroleum products.

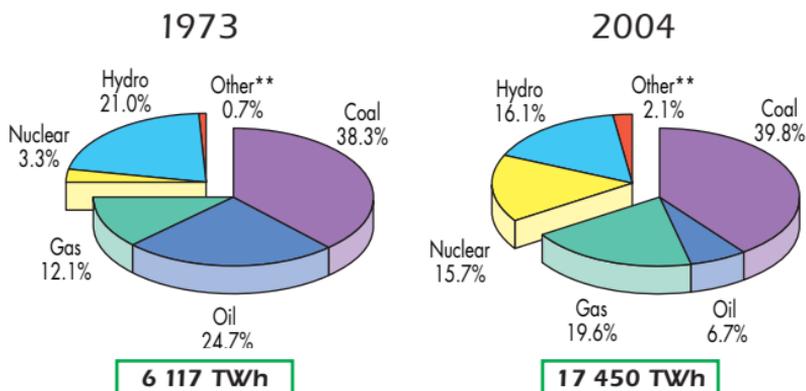
**Does not include unlisted small teapot refineries which are estimated at between 200 and 500 kb/cd.

Electricity Generation* by Fuel

Evolution from 1971 to 2004 of World Electricity Generation* by Fuel (TWh)



1973 and 2004 Fuel Shares of Electricity Generation*



*Excludes pumped storage.

**Other includes geothermal, solar, wind, combustible renewables & waste.

Electricity Production from Fossil Fuels

2



Coal	TWh
United States	2 090
People's Rep. of China	1 713
India	461
Germany	308
Japan	294
South Africa	226
Australia	190
Russia	161
Poland	143
Korea	142
Rest of the World	1 216
World	6 944

2004 data

Oil	TWh
United States	139
Japan	133
Saudi Arabia	81
People's Rep. of China	72
Mexico	70
Italy	47
Indonesia	36
India	36
Kuwait	33
Iraq	32
Rest of the World	491
World	1 170

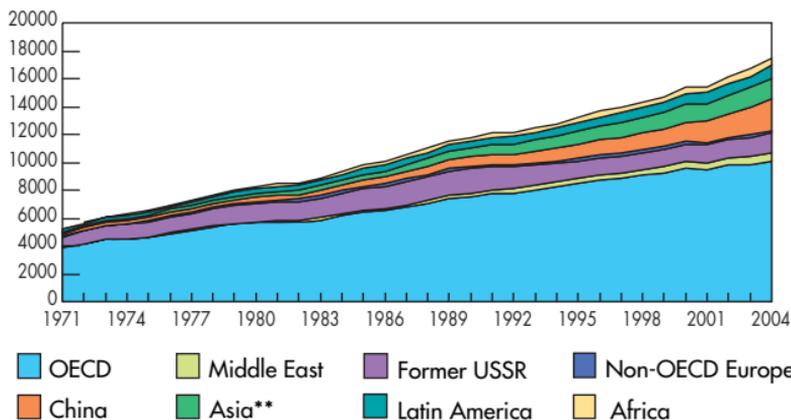
2004 data

Gas	TWh
United States	732
Russia	421
Japan	244
United Kingdom	160
Italy	130
Islamic Rep. of Iran	125
Thailand	89
Mexico	87
Saudi Arabia	79
Egypt	72
Rest of the World	1 280
World	3 419

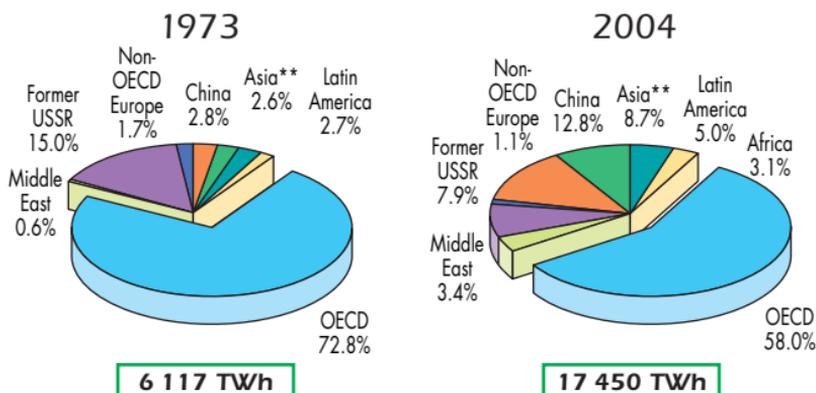
2004 data

Electricity Generation* by Region

Evolution from 1971 to 2004 of World Electricity Generation* by Region (TWh)



1973 and 2004 Regional Shares of Electricity Generation*



* Excludes pumped storage.

**Asia excludes China.

Producers, Exporters and Importers of Electricity

2



Producers*	TWh	% of World total
United States	4 148	23.8
People's Rep. of China	2 200	12.6
Japan	1 071	6.1
Russia	930	5.3
India	668	3.8
Germany	610	3.5
Canada	598	3.4
France	567	3.2
United Kingdom	393	2.3
Brazil	387	2.2
Rest of the World	5 878	33.8
World	17 450	100.0

2004 data

Exporters**	TWh
France	69
Germany	51
Paraguay	45
Canada	33
Switzerland	28
Czech Republic	25
United States	23
Russia	20
Sweden	18
Poland	15
Rest of the World	219
World	546

2004 data

Importers**	TWh
Germany	48
Italy	46
Brazil	37
United States	34
Switzerland	27
Canada	23
Netherlands	21
Austria	17
Sweden	16
Norway	15
Rest of the World	258
World	542

2004 data

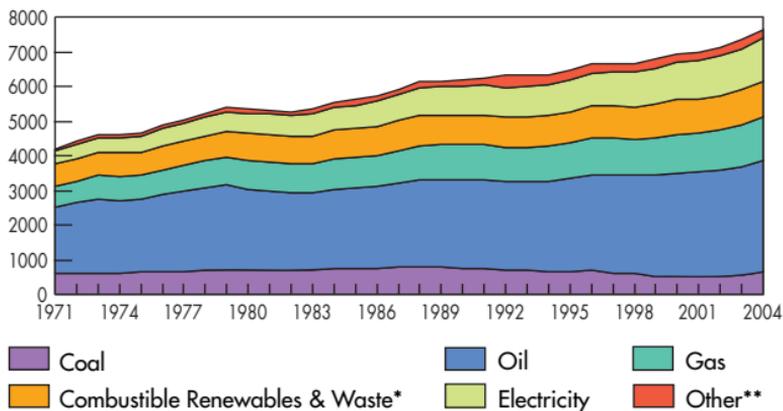
* Gross production minus production from pumped storage plants.

** Total exports and total imports (including transit).

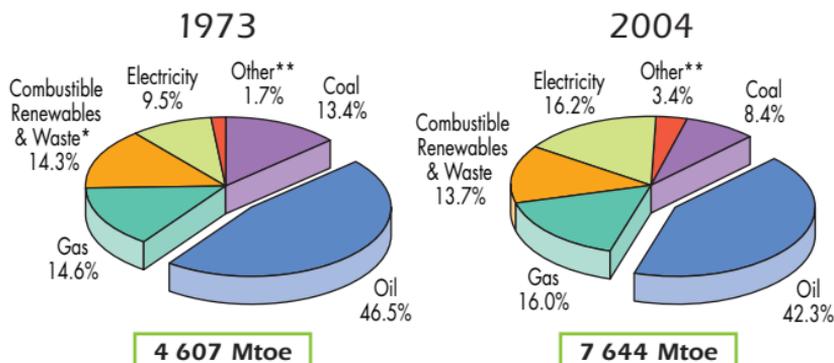
TOTAL FINAL CONSUMPTION

The World

Evolution from 1971 to 2004 of World Total Final Consumption by Fuel (Mtoe)



1973 and 2004 Fuel Shares of Total Final Consumption



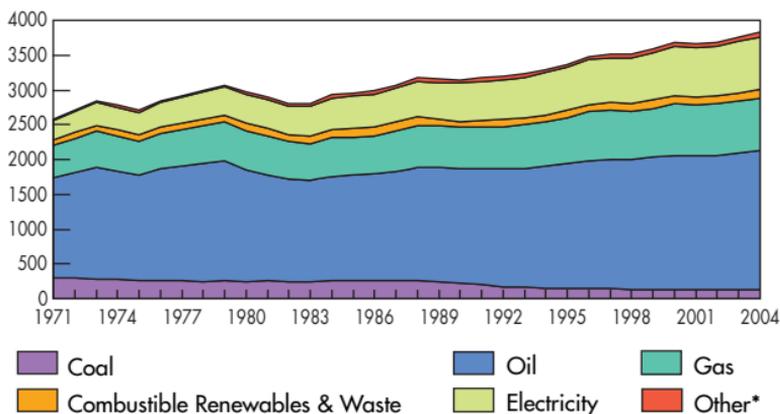
* Prior to 1994 combustible renewables & waste final consumption has been estimated.

**Other includes geothermal, solar, wind, heat, etc.

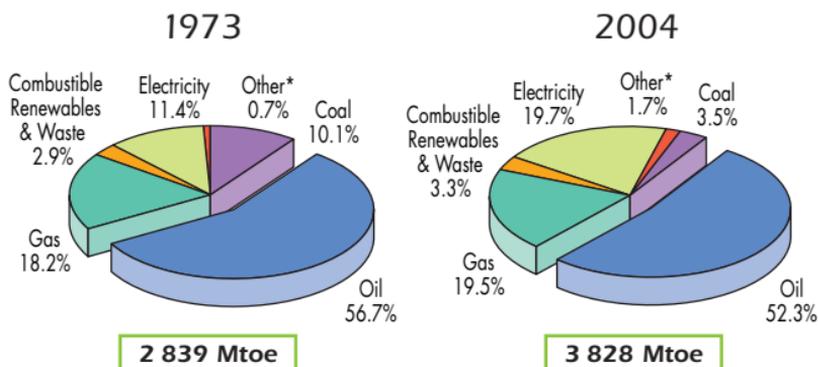
BY FUEL

The OECD

Evolution from 1971 to 2004 of OECD Total Final Consumption by Fuel (Mtoe)



1973 and 2004 Fuel Shares of Total Final Consumption

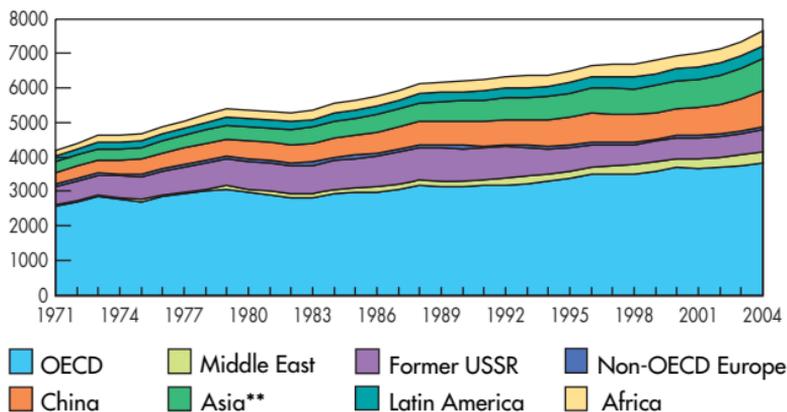


*Other includes geothermal, solar, wind, heat, etc.

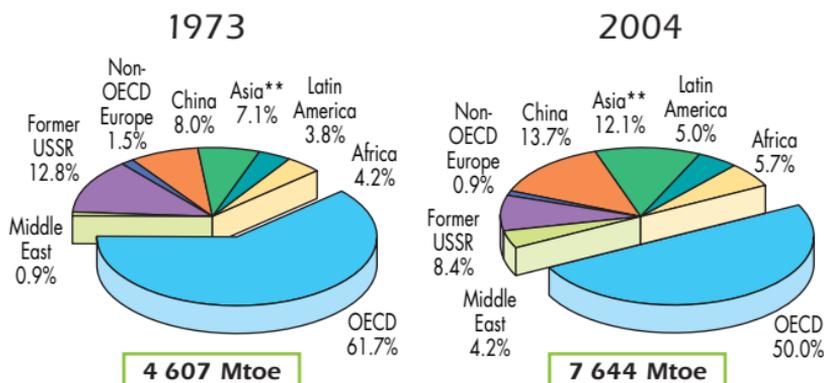
TOTAL FINAL CONSUMPTION

The World

Evolution from 1971 to 2004 of World Total Final Consumption* by Region (Mtoe)



1973 and 2004 Regional Shares of Total Final Consumption*



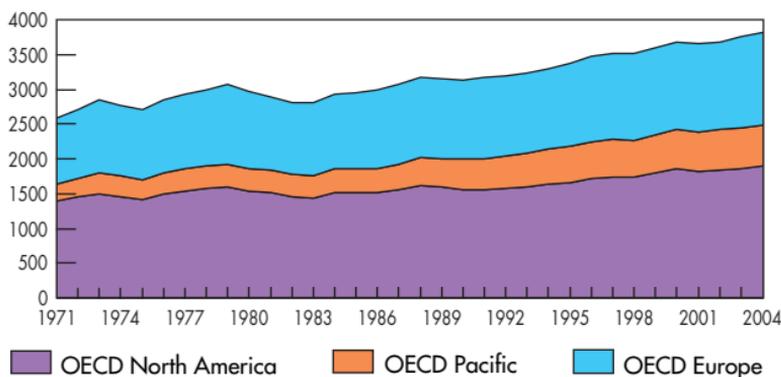
* Prior to 1994 combustible renewables & waste final consumption has been estimated.

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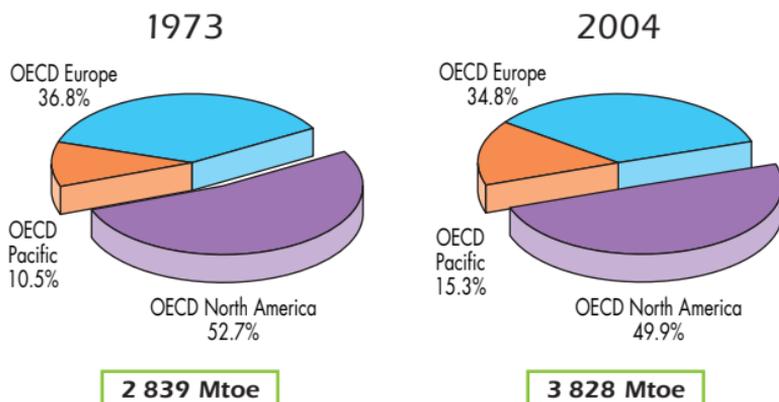
BY REGION

The OECD

Evolution from 1971 to 2004 of OECD Total Final Consumption by Region (Mtoe)



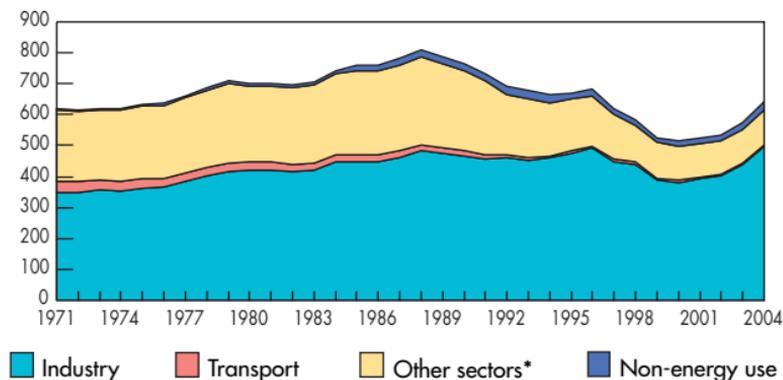
1973 and 2004 Regional Shares of Total Final Consumption



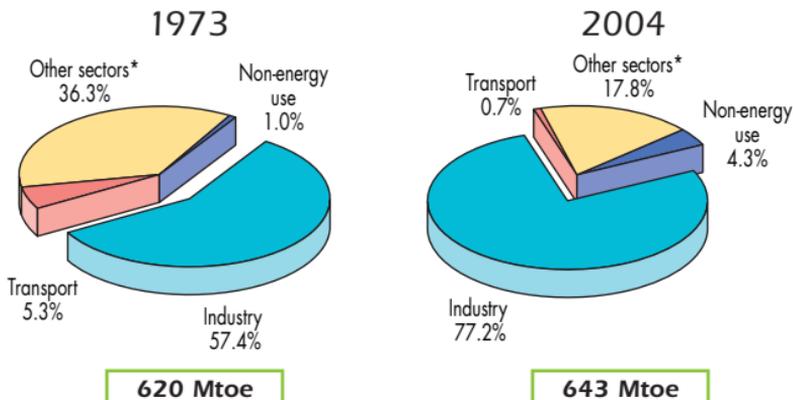
TOTAL FINAL CONSUMPTION

Coal

Evolution from 1971 to 2004 of Total Final Consumption by Sector (Mtoe)



1973 and 2004 Shares of World Coal Consumption

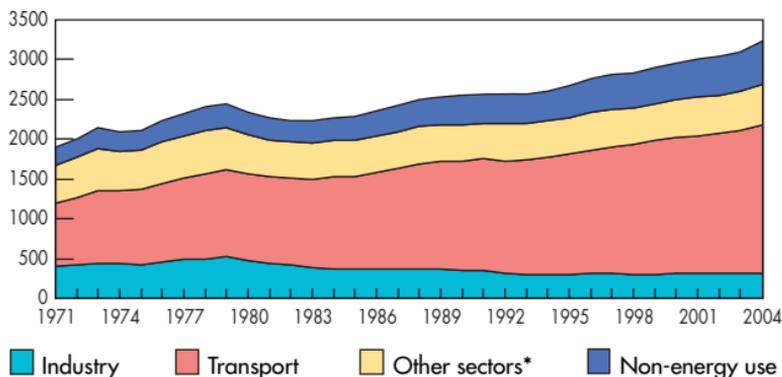


*Other sectors comprises agriculture, commercial & public service, residential and non-specified.

BY SECTOR

Oil

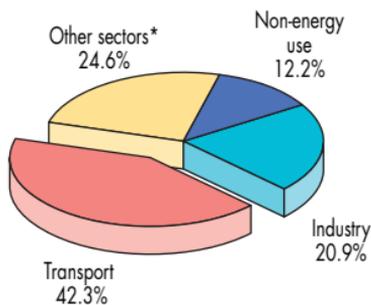
Evolution from 1971 to 2004 of Total Final Consumption by Sector (Mtoe)



3

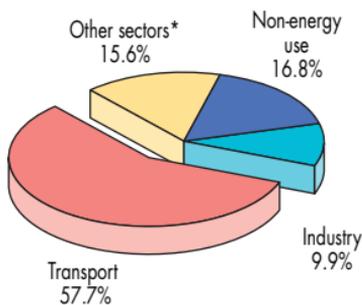
1973 and 2004 Shares of World Oil Consumption

1973



2 141 Mtoe

2004



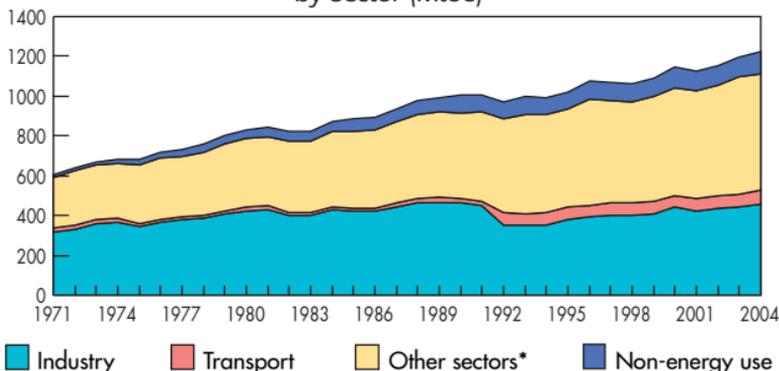
3 231 Mtoe

*Other sectors comprises agriculture, commercial & public service, residential and non-specified.

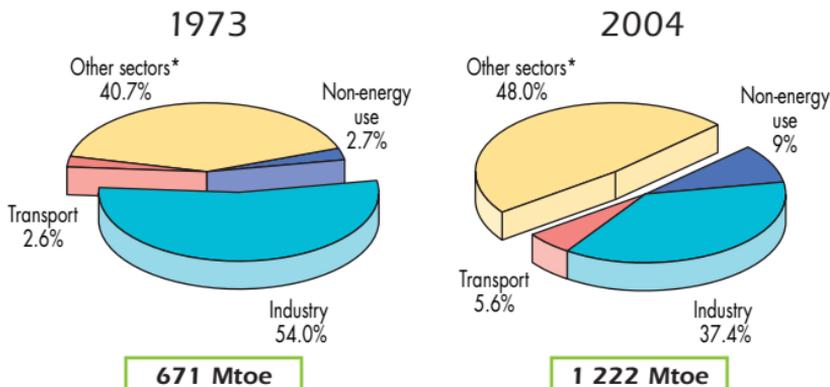
TOTAL FINAL CONSUMPTION

Gas

Evolution from 1971 to 2004 of Total Final Consumption by Sector (Mtoe)



1973 and 2004 Shares of World Gas Consumption

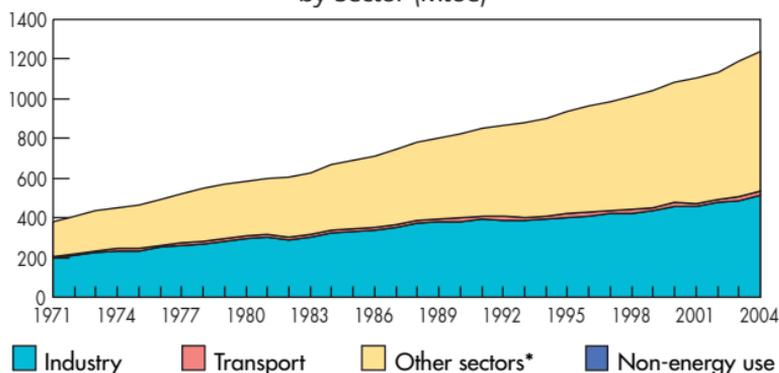


*Other sectors comprises agriculture, commercial & public service, residential and non-specified.

BY SECTOR

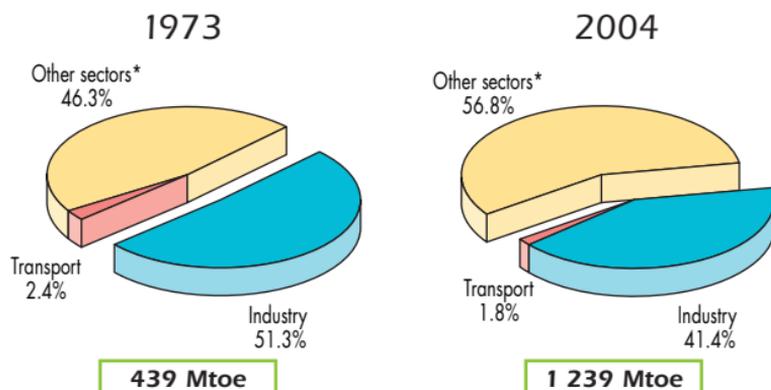
Electricity

Evolution from 1971 to 2004 of Total Final Consumption by Sector (Mtoe)



3

1973 and 2004 Shares of World Electricity Consumption



*Other sectors comprises agriculture, commercial & public service, residential and non-specified.

SIMPLIFIED ENERGY

The World

1973

(Mtoe)

SUPPLY AND CONSUMPTION	Coal	Crude Oil	Petroleum Products	Gas	Nuclear	Hydro	Combustible Renewables & Waste*	Other**	Total
Indigenous Prod.	1475.71	2935.87	-	993.51	53.05	110.23	674.80	6.13	6249.30
Imports	139.99	1577.16	409.81	73.41	-	-	0.12	8.14	2208.63
Exports	-130.35	-1611.05	-440.77	-72.80	-	-	-0.19	-8.27	-2263.43
Stock Changes	12.22	-21.82	-16.08	-15.00	-	-	-0.23	-	-40.91
TPES	1497.58	2880.15	-47.03	979.11	53.05	110.23	674.50	6.00	6153.59
Intl. Marine Bunkers	-	-	-118.77	-	-	-	-	-	-118.77
Transfers	-	-43.47	48.43	-	-	-	-	-	4.96
Statistical Diff.	12.89	12.10	-7.05	4.79	-	-	-	-0.11	22.62
Electricity Plants	-557.33	-22.65	-317.94	-160.05	-52.95	-110.23	-2.73	502.76	-721.13
CHP Plants	-87.77	-	-28.39	-50.85	-0.10	-	-0.75	100.70	-67.16
Heat Plants	-9.22	-	-0.91	-0.69	-	-	-0.80	7.11	-4.50
Gas Works	-9.86	-0.60	-9.27	13.52	-	-	-	-	-6.21
Pet. Refineries	-	-2800.71	2772.64	-	-	-	-	-	-28.07
Coal Transf.	-183.81	-	-3.38	-0.19	-	-	-0.08	-	-187.46
Liquefaction	-0.73	0.24	-	-	-	-	-	-	-0.48
Other Transf.	-	5.32	-5.47	-0.03	-	-	-11.04	-	-11.22
Own Use	-34.10	-2.62	-161.80	-106.70	-	-	-0.07	-57.78	-363.08
Distribution Losses	-7.40	-7.07	-0.27	-7.51	-	-	-	-43.07	-65.32
TFC***	620.25	20.70	2120.76	671.40	-	-	659.04	515.62	4607.77
Industry Sector	356.13	16.38	431.92	362.19	-	-	-	277.14	1507.39
Transport Sector	32.99	-	905.51	17.72	-	-	-	10.47	966.99
Other Sectors	225.12	-	527.11	273.27	-	-	-	228.01	1410.87
Non-Energy Use****	6.00	4.32	256.22	18.22	-	-	-	-	284.92

* Combustible renewables & waste final consumption has been estimated based on TPES.

** Other includes geothermal, solar, electricity and heat, wind, etc. *** Totals may not always add up due to a lack of breakdown of consumption for combustible renewables & waste.

**** Includes petrochemical feedstocks.

BALANCE TABLE

The World

2004

(Mtoe)

SUPPLY AND CONSUMPTION	Coal	Crude Oil	Petroleum Products	Gas	Nuclear	Hydro	Combustible Renewables & Waste	Other*	Total
Indigenous Prod.	2750.16	3955.65	-	2320.69	714.07	241.48	1173.53	57.85	11213.42
Imports	517.67	2275.95	844.40	665.91	-	-	2.21	46.58	4352.72
Exports	-493.36	-2195.56	-910.79	-670.47	-	-	-2.93	-47.00	-4320.11
Stock Changes	1.24	-12.41	-2.62	-9.17	-	-	0.20	-	-22.76
TPES	2775.72	4023.62	-69.01	2306.95	714.07	241.48	1173.02	57.43	11223.28
Intl. Marine Bunkers	-	-	-163.84	-	-	-	-	-	-163.84
Transfers	-	-129.56	143.43	-	-	-	-	-	13.87
Statistical Diff.	18.08	-17.51	1.06	7.53	-	-	-0.01	0.24	9.40
Electricity Plants	-1626.66	-20.21	-225.62	-490.56	-702.06	-241.48	-35.10	1288.58	-2053.11
CHP Plants	-176.65	-0.01	-30.78	-291.70	-12.00	-	-33.64	302.21	-242.57
Heat Plants	-85.99	-0.91	-14.86	-95.02	-	-	-6.78	157.70	-45.86
Gas Works	-13.19	-	-3.53	10.04	-	-	-	-	-6.69
Pet. Refineries	-	-3864.50	3824.43	-0.68	-	-	-	-	-40.75
Coal Transf.	-169.28	0.04	-3.14	-0.26	-	-	-	-	-172.64
Liquefaction Plants	-17.66	5.35	-	-3.02	-	-	-	-	-15.33
Other Transf.	-	27.66	-28.31	-5.83	-	-	-49.78	-	-56.26
Own Use	-60.21	-9.11	-209.05	-190.56	-	-	-0.31	-155.46	-624.70
Distribution Losses	-1.57	-4.11	-0.14	-24.81	-	-	-0.02	-149.64	-180.28
TFC	642.59	10.76	3220.64	1222.07	-	-	1047.37	1500.96	7644.39
Industry Sector	496.34	3.73	319.15	457.77	-	-	167.49	613.87	2058.34
Transport Sector	4.58	0.04	1864.34	68.11	-	-	15.44	22.04	1974.54
Other Sectors	114.18	0.34	502.34	586.80	-	-	863.91	865.05	2932.62
Non-Energy Use**	27.48	6.66	534.81	109.40	-	-	0.53	-	678.88

* Other includes geothermal, solar, electricity and heat, wind, etc.

** Includes petrochemical feedstocks.

SIMPLIFIED ENERGY

The OECD

1973

(Mtoe)

SUPPLY AND CONSUMPTION	Coal	Crude Oil	Petroleum Products	Gas	Nuclear	Hydro	Combustible Renewables & Waste	Other*	Total
Indigenous Prod.	818.29	701.75	-	705.65	49.22	78.46	85.96	6.13	2445.46
Imports	121.72	1286.57	337.43	62.56	-	-	0.03	7.55	1815.85
Exports	-111.07	-63.46	-173.84	-50.39	-	-	-0.01	-7.00	-405.78
Intl. Marine Bunkers	-	-	-72.76	-	-	-	-	-	-72.76
Stock Changes	14.41	-11.04	-11.51	-11.98	-	-	0.06	-	-20.07
TPEs	843.35	1913.81	79.32	705.83	49.22	78.46	86.04	6.67	3762.69
Transfers	-	-37.99	42.12	-	-	-	-	-	4.13
Statistical Diff.	17.70	13.22	2.28	-5.62	-	-	-0.00	-	27.57
Electricity Plants	-387.37	-20.67	-223.37	-108.33	-49.12	-78.46	-1.42	363.19	-505.54
CHP Plants	-53.52	-	-7.93	-11.65	-0.10	-	-0.75	30.94	-43.01
Heat Plants	-9.22	-	-0.91	-0.69	-	-	-0.80	7.11	-4.50
Gas Works	-8.40	-0.60	-8.81	13.02	-	-	-	-	-4.79
Pet. Refineries	-	-1871.71	1864.06	-	-	-	-	-	-7.66
Coal Transf.	-90.91	-	-3.38	-0.19	-	-	-0.02	-	-94.51
Liquefaction Plants	-	0.03	-	-	-	-	-	-	0.03
Other Transf.	-	5.12	-5.27	-0.03	-	-	-	-	-0.18
Own Use	-23.62	-1.00	-127.38	-72.86	-	-	-0.07	-33.37	-258.29
Distribution Losses	-2.32	-	-0.24	-3.95	-	-	-	-30.33	-36.83
TFC	285.69	0.21	1610.48	515.53	-	-	82.99	344.21	2839.11
Industry Sector	179.29	0.21	310.53	253.72	-	-	42.02	168.80	954.56
Transport Sector	7.21	-	691.14	17.00	-	-	0.00	5.29	720.64
Other Sectors	96.10	-	396.27	239.28	-	-	40.97	170.13	942.74
Non-Energy Use**	3.10	-	212.54	5.53	-	-	-	-	221.17

*Includes geothermal, solar, electricity and heat, wind, etc.

** Includes petrochemical feedstocks.

BALANCE TABLE

The OECD

2004

(Mtoe)

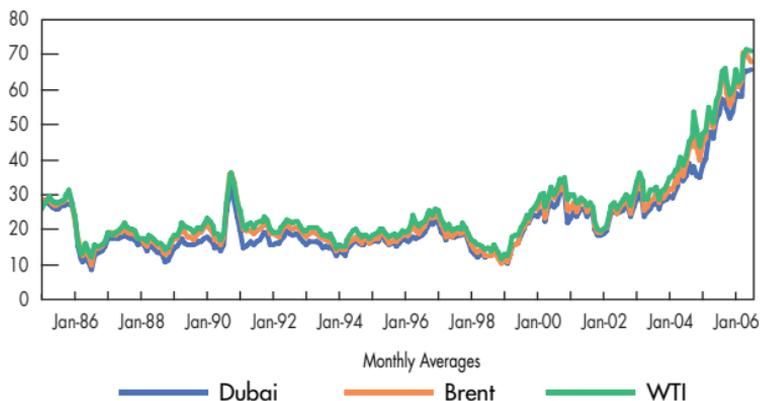
SUPPLY AND CONSUMPTION	Coal	Crude Oil	Petroleum Products	Gas	Nuclear	Hydro	Combustible Renewables & Waste	Other*	Total
Indigenous Prod.	981.21	1014.82	-	925.81	604.33	108.99	186.20	38.18	3859.54
Imports	363.57	1660.74	489.98	515.07	-	-	2.02	31.25	3062.63
Exports	-220.58	-445.39	-382.41	-241.65	-	-	-0.59	-29.78	-1320.40
Intl. Marine Bunkers	-	-	-88.98	-	-	-	-	-	-88.98
Stock Changes	4.37	-6.86	-0.36	-2.00	-	-	-0.04	-	-4.88
TPES	1128.56	2223.31	18.23	1197.23	604.33	108.99	187.60	39.66	5507.90
Transfers	-	-42.13	49.37	-	-	-	-	-	7.24
Statistical Diff.	-9.65	-12.31	0.37	5.11	-	-	-0.02	0.28	-16.23
Electricity Plants	-808.36	-6.30	-89.71	-244.36	-596.69	-108.99	-26.14	746.62	-1133.92
CHP Plants	-92.72	-0.00	-17.78	-120.42	-7.64	-	-31.57	145.66	-124.47
Heat Plants	-5.37	-	-1.64	-5.94	-	-	-3.07	12.37	-3.64
Gas Works	-2.28	-	-2.14	3.47	-	-	-	-	-0.95
Pet. Refineries	-	-2184.26	2191.79	-0.68	-	-	-	-	6.84
Coal Transf.	-62.54	0.04	-2.60	-0.26	-	-	-	-	-65.36
Liquefaction Plants	-0.04	0.04	-	-	-	-	-	-	-
Other Transf.	0.00	23.10	-23.72	-0.00	-	-	-0.11	-	-0.74
Own Use	-13.30	-0.02	-122.19	-84.30	-	-	-0.10	-64.94	-284.85
Distribution Losses	-0.83	-	-	-2.98	-	-	-0.01	-60.46	-64.29
TFC	133.47	1.46	1999.97	746.87	-	-	126.57	819.18	3827.52
Industry Sector	114.30	0.04	140.43	273.69	-	-	63.58	286.86	878.91
Transport Sector	0.07	-	1245.33	20.23	-	-	9.00	9.72	1284.36
Other Sectors	17.26	-	263.84	416.50	-	-	53.99	522.60	1274.19
Non-Energy Use**	1.84	1.41	350.36	36.45	-	-	-	-	390.07

*Includes geothermal, solar, electricity and heat, wind, etc.

** Includes petrochemical feedstocks.

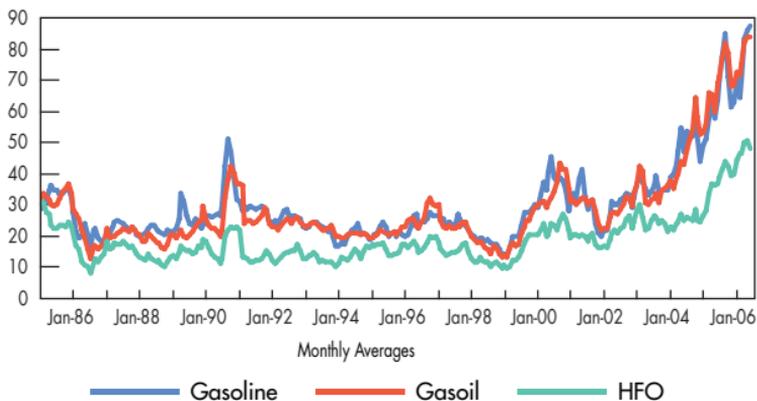
Crude Oil

Key Crude Oil Spot Prices in US Dollars/barrel



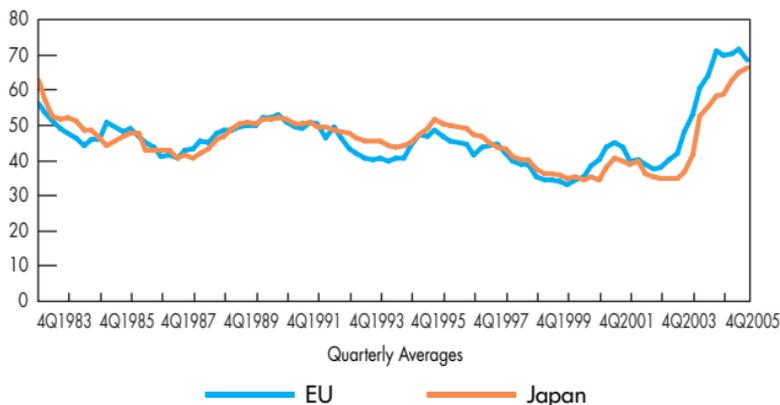
Petroleum Products

Rotterdam Oil Product Spot Prices in US Dollars/barrel



Coal

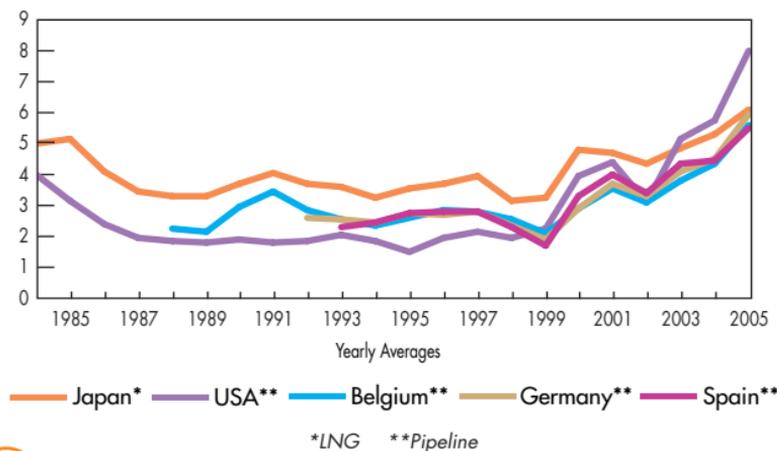
Steam Coal Import Costs in US Dollars/tonne



5

Natural Gas

Natural Gas Import Prices in US Dollars/MBtu



RETAIL PRICES^(a)

	Heavy Fuel Oil for Industry ^(b) (tonne)	Light Fuel Oil for Households (1000 litres)	Automotive Diesel Oil ^(c) (litre)	Unleaded Premium ^(d) (litre)
Australia	..	..	..	0.885
Austria	421.28	794.80	0.825	1.276
Belgium	356.39	675.62	1.067	1.590
Canada	337.52	709.99	0.810	0.803
Chinese Taipei	297.49	x	0.628	0.751
Czech Republic	314.98	731.64	0.988	1.186
Denmark	436.49	1 218.25	1.044	1.488
Finland	445.77	755.40	0.997	1.500
France	381.48	774.22	1.071	1.458
Germany	367.39	682.43	1.144	1.519
Greece	339.72 L	1044.47 L	0.916 L	1.086 L
Hungary	387.84	x	1.020	1.241
India	..	..	..	..
Ireland	498.16	837.97	1.073	1.301
Italy	447.66	1 333.68	1.158	1.505
Japan	537.45	666.60	0.768	1.109
Korea	547.12	956.91	..	1.526
Luxembourg	208.04 L	629.84	0.940	1.271
Mexico	226.69	..	0.438	0.613
Netherlands	422.92	1 041.64	1.099	1.667
New Zealand	396.21	..	0.625	0.972
Norway	..	1 256.93	1.210	1.669
Poland	322.83	781.54	0.945	1.169
Portugal	517.68	790.61	1.114	1.473
South Africa	..	..	..	..
Slovak Republic	246.17 L	..	1.043 L	1.208 L
Spain	439.09	720.00	0.964	1.188
Sweden	c	1 257.70	1.141	1.439
Switzerland	368.06	597.94	1.141	1.227
Turkey	639.35	1 473.86	1.554	1.963
United Kingdom	391.33	593.08	1.394	1.557
United States	341.38	620.24	0.661	0.622

(a) Prices are for 1st quarter 2006, or latest available L. (b) High sulphur fuel oil for Canada, India, Ireland, Mexico, New Zealand, South Africa, Turkey and the United States; low sulphur fuel oil for all other countries. (c) For commercial purposes. (d) Unleaded premium gasoline (95 RON); unleaded regular for Australia, Canada, Japan, Korea, Mexico, New Zealand

IN SELECTED COUNTRIES in US Dollars/Unit

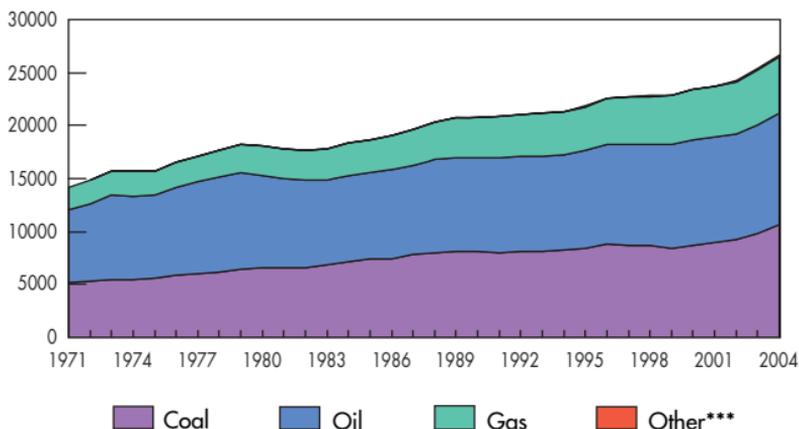
Nat Gas for Industry (10 ⁷ kcal GCV ^(e))	Nat Gas for Households (10 ⁷ kcal GCV ^(e))	Steam Coal for Industry ^(f) (tonne)	Electricity for Industry ^(g) (kWh)	Electricity for Households ^(g) (kWh)	
..	..	..	0.0609 L	0.0985 L	Australia
..	744.54	162.34	0.1056	0.1613	Austria
c	..	..	..	..	Belgium
221.71 L	395.18 L	..	..	..	Canada
380.70	354.97	..	0.0512	0.0690	Chinese Taipei
377.03	519.44	c	0.0892	0.1161	Czech Republic
c	1 270.76	..	0.0759 L	0.2935	Denmark
235.59	334.95	126.07	0.0701	0.1200	Finland
382.29	653.44	123.43 L	0.0483	0.1365	France
..	..	..	0.0769 L	0.1975 L	Germany
305.66 L	503.14 L	..	0.0673 L	0.1138 L	Greece
405.42	373.74	..	0.1068	0.1266	Hungary
..	..	34.89 L	..	..	India
566.23	606.43	..	0.1071	0.1842	Ireland
c	c	69.40 L	0.1684 L	0.1995 L	Italy
392.53 L	1271.52 L	65.66	0.1272 L	0.1963 L	Japan
467.42	609.75	58.72	0.0638	0.0894	Korea
..	477.53 L	..	..	0.1866 L	Luxembourg
370.63	659.40	x	0.1009	0.1010	Mexico
227.77 L	858.15	..	c	0.2443	Netherlands
166.03	743.97	c	0.0527	0.1337	New Zealand
x	x	..	0.0517	0.0856	Norway
274.80	449.72	61.96 L	0.0736	0.1250	Poland
384.42	1 009.22	..	0.1073	0.1764	Portugal
..	x	..	..	..	South Africa
275.65 L	431.22 L	..	0.0797 L	0.1295 L	Slovak Republic
344.60	726.64	..	0.0833 L	0.1535 L	Spain
..	..	..	..	..	Sweden
445.91	714.20	86.42	0.0807	0.1276	Switzerland
350.49	410.22	50.68	0.1077	0.1194	Turkey
396.84 L	519.67	85.19 L	0.1003 L	0.1580	United Kingdom
375.54	487.47	52.66	0.0549	0.0961	United States

and the United States. (e) Gross calorific value. (f) Brown coal for Turkey. (g) Price excluding tax for the United States.
L Latest data available.

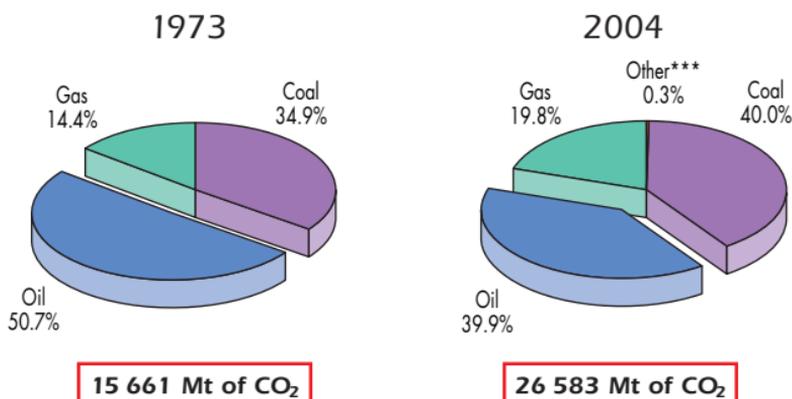
.. not available x not applicable c confidential

CO₂ Emissions by Fuel

Evolution from 1971 to 2004 of World* CO₂ Emissions** by Fuel (Mt of CO₂)



1973 and 2004 Fuel Shares of CO₂ Emissions**

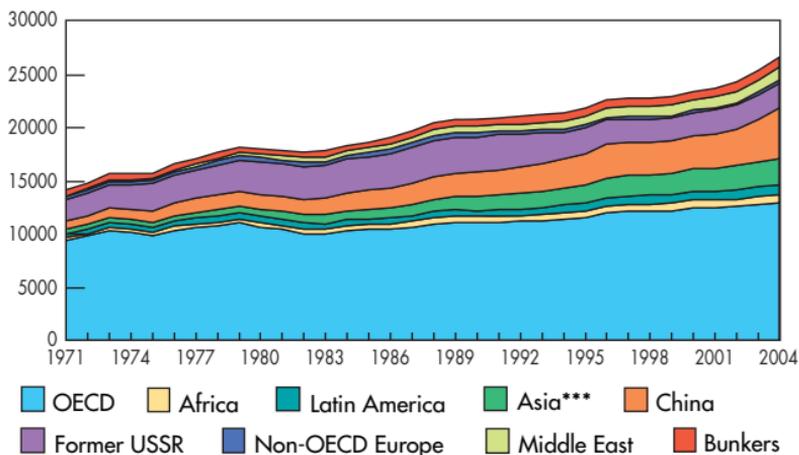


* World includes international aviation and international marine bunkers.

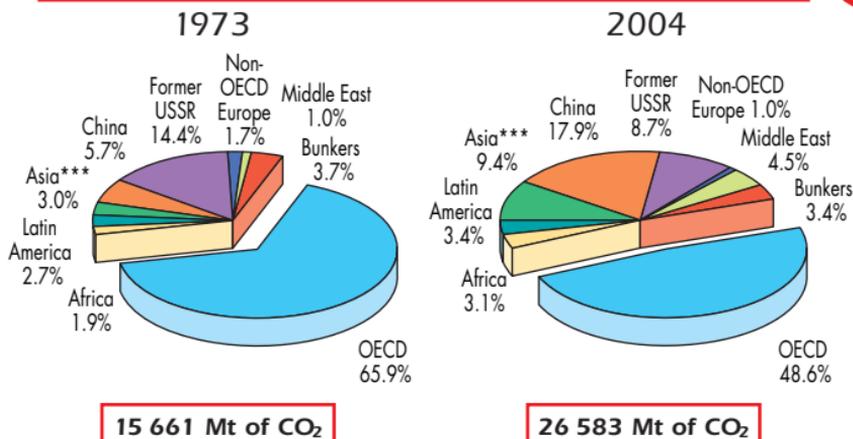
** Calculated using IEA's Energy Balance Tables and the Revised 1996 IPCC Guidelines. CO₂ emissions are from fuel combustion only. *** Other includes industrial waste and non-renewable municipal waste.

CO₂ Emissions by Region

Evolution from 1971 to 2004 of World* CO₂ Emissions** by Region (Mt of CO₂)



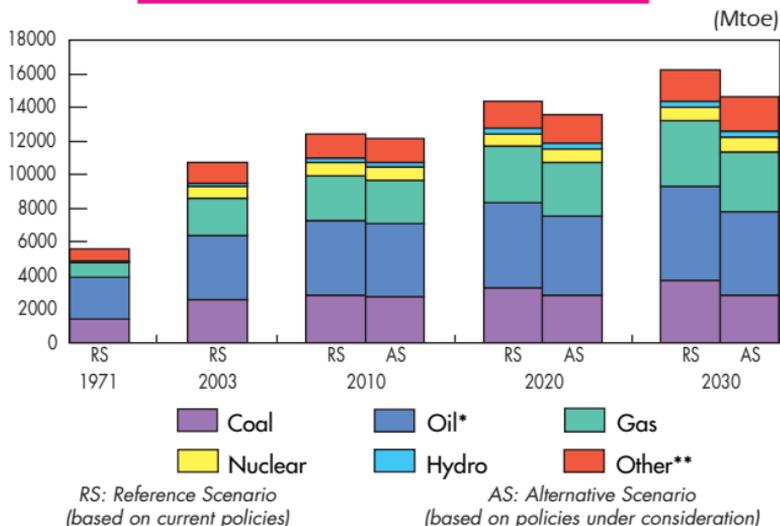
1973 and 2004 Regional Shares of CO₂ Emissions**



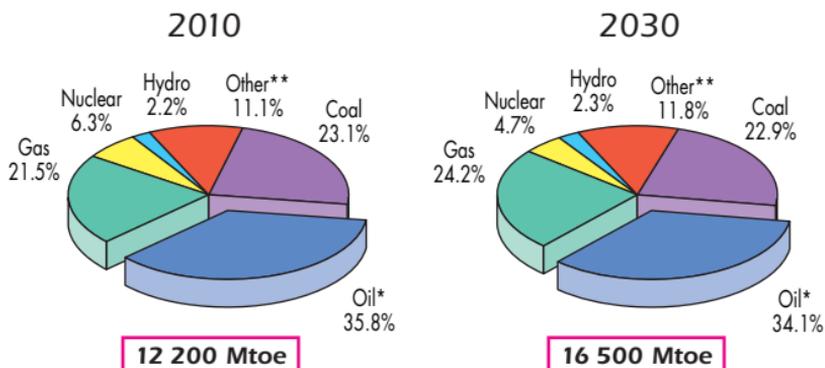
* World includes international aviation and international marine bunkers, which are shown together as Bunkers. ** Calculated using IEA's Energy Balance Tables and the Revised 1996 IPCC Guidelines. CO₂ emissions are from fuel combustion only. *** Asia excludes China.

OUTLOOK FOR WORLD TPES

TPES* Outlook by Fuel



Fuel Shares of TPES* in 2010 and 2030 for the Reference Scenario

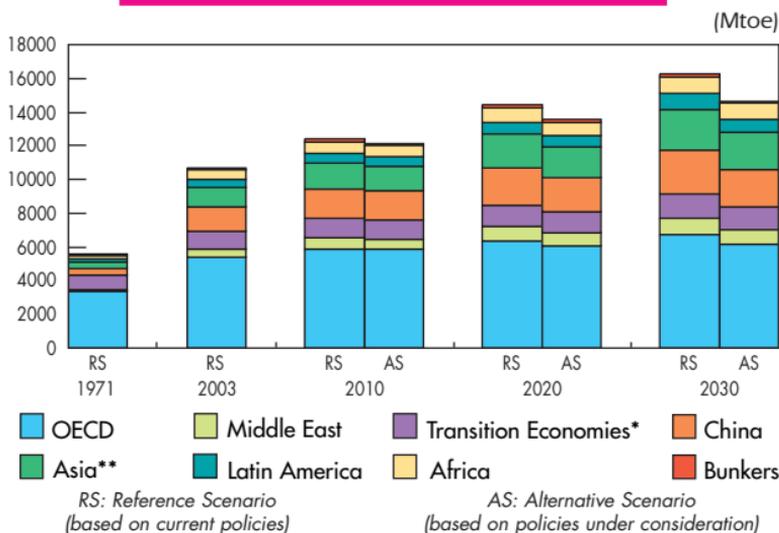


* Includes bunkers.

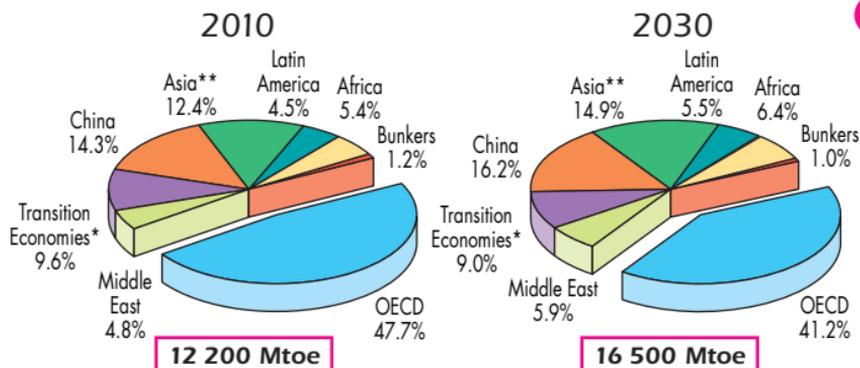
** Other includes combustible renewables & waste, geothermal, solar, wind, tide, etc.

TO 2030

TPES Outlook by Region



Regional Shares of TPES in 2010 and 2030 for the Reference Scenario



*Includes Former USSR and Non-OECD Europe.
** Asia excludes China.

Selected Energy Indicators for 2004

Region/ Country	Popu- lation (million)	GDP (billion 2000\$)	GDP (PPP) (billion 2000\$)	Energy Prod. (Mtoe)	Net Imports (Mtoe)	TPES (Mtoe)	Elec. Cons. ^[a] (TWh)	CO ₂ Emissions ^[b] (Mt of CO ₂)
World	6352	35025	52289	11213	-	11223 ^[c]	15985	26583 ^[d]
OECD	1164	27698	29493	3860	1742	5508	9548	12911
Middle East	182	740	1282	1437	-942	480	524	1183
Former USSR	286	491	1989	1508	-521	979	1184	2313
Non-OECD Europe	54	145	413	63	44	104	166	265
China	1303	1904	7219	1537	115	1626	2094	4769
Asia	2048	1822	6777	1127	191	1290	1264	2499
Latin America	443	1541	3119	655	-161	485	729	907
Africa	872	685	1997	1027	-435	586	477	814
Albania	3.11	4.60	14.24	0.98	1.39	2.37	3.73	4.85
Algeria	32.36	64.15	196.37	165.73	-132.30	32.89	26.29	77.84
Angola	15.49	12.38	31.04	57.36	-47.07	9.49	1.92	7.81
Argentina	38.37	287.13	468.96	85.45	-21.31	63.71	88.28	135.98
Armenia	3.03	2.88	11.41	0.75	1.38	2.13	4.32	3.47
Australia	20.21	455.60	598.31	261.77	-143.76	115.78	224.89	354.36
Austria	8.18	205.00	243.22	9.88	23.58	33.19	64.17	75.14
Azerbaijan	8.31	7.85	31.70	20.05	-7.07	12.95	20.25	29.30
Bahrain	0.72	9.92	13.66	15.84	-8.70	7.49	7.77	16.95
Bangladesh	139.22	55.97	239.30	18.39	4.38	22.79	19.43	33.55
Belarus	9.82	16.65	62.93	3.62	23.37	26.78	30.88	60.64
Belgium	10.42	246.30	290.14	13.53	52.03	57.69	89.37	116.05
Benin	8.18	2.68	8.20	1.62	0.87	2.48	0.55	2.41
Bolivia	9.01	9.31	22.52	11.82	-7.37	4.98	3.92	10.45
Bosnia and Herzegovina	3.91	5.50	25.27	3.25	1.35	4.70	8.52	16.28
Botswana	1.77	6.49	16.17	1.01	0.86	1.87	2.34	4.32
Brazil	183.91	655.38	1385.12	176.31	31.33	204.85	359.56	323.32

(a) Gross production + imports - exports - transmission/distribution losses.

(b) CO₂ emissions from fuel combustion only. Emissions are calculated using IEA's energy balances and the Revised 1996 IPCC Guidelines.

TPES/ Pop (toe/capita)	TPES/ GDP (toe/000 2000\$)	TPES/ GDP (PPP) (toe/000 2000\$ PPP)	Elec. Cons./Pop (kWh/ capita)	CO ₂ / TPES (t CO ₂ / toe)	CO ₂ / Pop (t CO ₂ / capita)	CO ₂ / GDP (kg CO ₂ / 2000\$)	CO ₂ / GDP (PPP) (kg CO ₂ / 2000\$ PPP)	Region/ Country
1.77	0.32	0.21	2516	2.37	4.18	0.76	0.51	World
4.73	0.20	0.19	8204	2.34	11.09	0.47	0.44	OECD
2.64	0.65	0.37	2881	2.47	6.51	1.60	0.92	Middle East
3.43	2.00	0.49	4142	2.36	8.09	4.71	1.16	Former USSR
1.92	0.72	0.25	3057	2.54	4.88	1.83	0.64	Non-OECD Europe
1.25	0.85	0.23	1607	2.93	3.66	2.50	0.66	China
0.63	0.71	0.19	617	1.94	1.22	1.37	0.37	Asia
1.10	0.32	0.16	1645	1.87	2.05	0.59	0.29	Latin America
0.67	0.86	0.29	547	1.39	0.93	1.19	0.41	Africa
0.76	0.51	0.17	1200	2.05	1.56	1.05	0.34	Albania
1.02	0.51	0.17	812	2.37	2.41	1.21	0.40	Algeria
0.61	0.77	0.31	124	0.82	0.50	0.63	0.25	Angola
1.66	0.22	0.14	2301	2.13	3.54	0.47	0.29	Argentina
0.70	0.74	0.19	1428	1.63	1.15	1.21	0.30	Armenia
5.73	0.25	0.19	11126	3.06	17.53	0.78	0.59	Australia
4.06	0.16	0.14	7850	2.26	9.19	0.37	0.31	Austria
1.56	1.65	0.41	2438	2.26	3.53	3.73	0.92	Azerbaijan
10.47	0.76	0.55	10855	2.26	23.68	1.71	1.24	Bahrain
0.16	0.41	0.10	140	1.47	0.24	0.60	0.14	Bangladesh
2.73	1.61	0.43	3144	2.26	6.17	3.64	0.96	Belarus
5.54	0.23	0.20	8579	2.01	11.14	0.47	0.40	Belgium
0.30	0.92	0.30	67	0.97	0.29	0.90	0.29	Benin
0.55	0.53	0.22	435	2.10	1.16	1.12	0.46	Bolivia
1.20	0.86	0.19	2180	3.46	4.17	2.96	0.64	Bosnia and Herzegovina
1.05	0.29	0.12	1325	2.32	2.44	0.67	0.27	Botswana
1.11	0.31	0.15	1955	1.58	1.76	0.49	0.23	Brazil

(c) TPES for World includes international marine bunkers.

(d) CO₂ emissions for the World include emissions from international aviation and international marine bunkers.

Region/ Country	Popu- lation (million)	GDP (billion 2000\$)	GDP (PPP) (billion 2000\$)	Energy Prod. (Mtoe)	Net Imports (Mtoe)	TPES (Mtoe)	Elec. Cons. ^(a) (TWh)	CO ₂ Emissions ^(b) (Mt of CO ₂)
Brunei Darussalam	0.37	4.77	4.16	20.77	-18.02	2.70	2.79	5.19
Bulgaria	7.76	15.19	57.62	10.27	9.20	18.94	30.65	45.40
Cameroon	16.04	10.62	32.04	12.48	-5.51	6.95	3.32	2.89
Canada	31.95	786.70	946.90	397.49	-134.00	269.05	548.79	550.86
Chile	16.12	88.06	161.13	8.39	21.13	27.93	49.72	58.58
People's Rep. of China	1296.16	1715.00	7023.71	1536.78	90.37	1609.35	2054.57	4732.26
Chinese Taipei	22.69	323.73	484.21	12.76	96.05	104.24	210.20	255.42
Colombia	44.92	93.93	299.54	76.23	-48.31	27.68	38.90	57.36
Congo	3.88	3.65	3.49	12.59	-11.52	1.06	0.51	0.91
Dem. Rep. of Congo	55.85	4.90	36.17	17.00	-0.44	16.56	5.19	2.24
Costa Rica	4.25	18.41	37.06	1.74	1.93	3.70	7.09	5.46
Cote d'Ivoire	17.87	10.26	25.48	7.22	-0.20	6.93	3.15	5.71
Croatia	4.44	21.92	49.77	3.87	5.06	8.82	14.73	20.56
Cuba	11.25	29.31	80.73	5.85	5.41	10.69	13.23	24.30
Cyprus	0.83	10.27	17.31	0.19	2.44	2.62	4.47	6.94
Czech Republic	10.21	62.70	168.34	34.24	11.71	45.53	63.53	118.81
Denmark	5.40	166.40	159.81	31.01	-10.02	20.07	35.82	50.92
Dominican Republic	8.77	21.71	60.03	1.61	6.08	7.66	9.39	17.62
Ecuador	13.04	19.03	47.50	29.30	-19.22	10.08	8.96	21.92
Egypt	72.64	117.29	281.13	64.66	-6.13	56.88	88.29	140.51
El Salvador	6.76	14.12	31.33	2.44	2.07	4.49	4.26	5.76
Eritrea	4.23	0.73	3.80	0.48	0.24	0.75	0.24	0.71
Estonia	1.35	7.19	18.05	3.55	1.68	5.17	7.40	16.58
Ethiopia	69.96	7.88	48.60	19.37	1.40	21.18	2.29	5.07
Finland	5.23	132.10	146.51	15.89	21.21	38.09	87.73	68.90
France	62.18	1414.80	1678.33	137.42	140.41	275.17	478.10	386.92
Gabon	1.36	5.26	8.29	12.11	-10.42	1.69	1.26	1.68
Georgia	4.52	3.99	11.81	1.29	1.54	2.83	7.13	3.06
Germany	82.50	1952.70	2160.03	136.01	215.76	348.04	579.98	848.60
Ghana	21.66	6.03	44.59	6.23	2.12	8.35	5.35	6.07

TPES/ Pop (toe/capita)	TPES/ GDP (toe/000 2000\$)	TPES/ GDP (PPP) (toe/000 2000\$ PPP)	Elec. Cons./Pop (kWh/ capita)	CO ₂ / TPES (t CO ₂ / toe)	CO ₂ / Pop (t CO ₂ / capita)	CO ₂ / GDP (kg CO ₂ / 2000\$)	CO ₂ / GDP (PPP) (kg CO ₂ / 2000\$ PPP)	Region/ Country
7.36	0.57	0.65	7609	1.93	14.18	1.09	1.25	Brunei Darussalam
2.44	1.25	0.33	3949	2.40	5.85	2.99	0.79	Bulgaria
0.43	0.65	0.22	207	0.42	0.18	0.27	0.09	Cameroon
8.42	0.34	0.28	17179	2.05	17.24	0.70	0.58	Canada
1.73	0.32	0.17	3084	2.10	3.63	0.67	0.36	Chile
1.24	0.94	0.23	1585	2.94	3.65	2.76	0.67	People's Rep. of China
4.59	0.32	0.22	9264	2.45	11.26	0.79	0.53	Chinese Taipei
0.62	0.29	0.09	866	2.07	1.28	0.61	0.19	Colombia
0.27	0.29	0.30	131	0.85	0.23	0.25	0.26	Congo
0.30	3.38	0.46	93	0.14	0.04	0.46	0.06	Dem. Rep. of Congo
0.87	0.20	0.10	1667	1.48	1.28	0.30	0.15	Costa Rica
0.39	0.68	0.27	176	0.82	0.32	0.56	0.22	Cote d'Ivoire
1.99	0.40	0.18	3317	2.33	4.63	0.94	0.41	Croatia
0.95	0.36	0.13	1177	2.27	2.16	0.83	0.30	Cuba
3.17	0.25	0.15	5415	2.65	8.40	0.68	0.40	Cyprus
4.46	0.73	0.27	6224	2.61	11.64	1.89	0.71	Czech Republic
3.72	0.12	0.13	6629	2.54	9.42	0.31	0.32	Denmark
0.87	0.35	0.13	1071	2.30	2.01	0.81	0.29	Dominican Republic
0.77	0.53	0.21	687	2.17	1.68	1.15	0.46	Ecuador
0.78	0.48	0.20	1215	2.47	1.93	1.20	0.50	Egypt
0.66	0.32	0.14	629	1.28	0.85	0.41	0.18	El Salvador
0.18	1.02	0.20	56	0.95	0.17	0.97	0.19	Eritrea
3.84	0.72	0.29	5484	3.20	12.29	2.31	0.92	Estonia
0.30	2.69	0.44	33	0.24	0.07	0.64	0.10	Ethiopia
7.29	0.29	0.26	16784	1.81	13.18	0.52	0.47	Finland
4.43	0.19	0.16	7689	1.41	6.22	0.27	0.23	France
1.24	0.32	0.20	928	0.99	1.23	0.32	0.20	Gabon
0.63	0.71	0.24	1577	1.08	0.68	0.77	0.26	Georgia
4.22	0.18	0.16	7030	2.44	10.29	0.43	0.39	Germany
0.39	1.38	0.19	247	0.73	0.28	1.01	0.14	Ghana

(b) CO₂ emissions from fuel combustion only. Emissions are calculated using IEA's energy balances and the Revised 1996 IPCC Guidelines.

Region/ Country	Popu- lation (million)	GDP (billion 2000\$)	GDP (PPP) (billion 2000\$)	Energy Prod. (Mtoe)	Net Imports (Mtoe)	TPES (Mtoe)	Elec. Cons. ^(a) (TWh)	CO ₂ Emissions ^(b) (Mt of CO ₂)
Gibraltar	0.03	0.61	0.58	0.00	1.27	0.15	0.14	0.44
Greece	11.06	135.00	211.30	10.29	24.41	30.47	56.95	93.89
Guatemala	12.30	21.17	48.74	5.33	2.39	7.57	6.32	10.33
Haiti	8.41	3.47	13.69	1.65	0.55	2.21	0.26	1.59
Honduras	7.05	6.80	18.63	1.75	2.37	3.86	4.13	6.40
Hong Kong (China)	6.88	188.90	194.97	0.05	24.90	17.12	39.23	36.30
Hungary	10.11	55.10	144.78	10.24	16.01	26.36	37.20	56.84
Iceland	0.29	9.60	9.01	2.52	1.08	3.50	8.24	2.26
India	1079.72	581.22	3115.31	466.87	105.80	572.85	493.78	1102.81
Indonesia	217.59	197.18	721.62	258.01	-83.62	174.04	104.05	336.32
Islamic Rep. of Iran	67.01	126.32	463.40	277.99	-131.56	145.84	137.05	369.38
Iraq	25.38	21.28	27.13	103.42	-73.20	29.75	31.59	81.22
Ireland	4.06	118.20	134.49	1.90	13.89	15.21	25.10	41.40
Israel	6.80	120.92	152.32	1.71	19.05	20.74	46.28	62.21
Italy	58.13	1114.20	1495.76	30.14	157.93	184.46	328.11	462.32
Jamaica	2.65	8.50	10.12	0.49	3.58	4.07	6.49	10.37
Japan	127.69	4932.50	3431.64	96.76	440.75	533.20	1031.26	1214.99
Jordan	5.44	10.55	23.44	0.29	6.37	6.52	8.57	16.70
Kazakhstan	14.99	27.26	102.53	118.60	-63.76	54.82	54.37	162.15
Kenya	33.47	14.28	35.05	13.68	3.28	16.92	4.68	9.00
Korea	48.08	613.10	920.65	38.03	184.02	213.05	355.37	462.10
DPR of Korea	22.38	10.53	30.78	19.21	1.27	20.37	18.50	70.20
Kuwait	2.46	43.47	43.82	132.77	-107.10	25.12	36.78	64.85
Kyrgyzstan	5.09	1.65	9.06	1.48	1.29	2.78	7.24	5.61
Latvia	2.31	10.32	24.77	2.14	3.06	4.60	5.90	7.23
Lebanon	3.54	19.85	18.99	0.23	5.18	5.40	8.85	15.29
Libya	5.74	40.78	33.71	85.38	-67.10	18.19	14.46	43.51
Lithuania	3.44	15.13	41.39	5.21	4.22	9.16	10.81	12.68
Luxembourg	0.45	21.90	24.09	0.07	4.66	4.75	7.46	11.27
FYR of Macedonia	2.03	3.65	12.34	1.54	1.16	2.70	6.46	8.18

TPES/ Pop (toe/capita)	TPES/ GDP (toe/000 2000\$)	TPES/ GDP (PPP) (toe/000 2000\$ PPP)	Elec. Cons./Pop (kWh/ capita)	CO ₂ / TPES (t CO ₂ / toe)	CO ₂ / Pop (t CO ₂ / capita)	CO ₂ / GDP (kg CO ₂ / 2000\$)	CO ₂ / GDP (PPP) (kg CO ₂ / 2000\$ PPP)	Region/ Country
5.29	0.24	0.26	4857	2.97	15.67	0.72	0.76	Gibraltar
2.76	0.23	0.14	5150	3.08	8.49	0.70	0.44	Greece
0.62	0.36	0.16	514	1.37	0.84	0.49	0.21	Guatemala
0.26	0.64	0.16	30	0.72	0.19	0.46	0.12	Haiti
0.55	0.57	0.21	586	1.66	0.91	0.94	0.34	Honduras
2.49	0.09	0.09	5699	2.12	5.27	0.19	0.19	Hong Kong (China)
2.61	0.48	0.18	3680	2.16	5.62	1.03	0.39	Hungary
11.94	0.36	0.39	28126	0.65	7.72	0.24	0.25	Iceland
0.53	0.99	0.18	457	1.93	1.02	1.90	0.35	India
0.80	0.88	0.24	478	1.93	1.55	1.71	0.47	Indonesia
2.18	1.15	0.31	2045	2.53	5.51	2.92	0.80	Islamic Rep. of Iran
1.17	1.40	1.10	1245	2.73	3.20	3.82	2.99	Iraq
3.75	0.13	0.11	6184	2.72	10.20	0.35	0.31	Ireland
3.05	0.17	0.14	6808	3.00	9.15	0.51	0.41	Israel
3.17	0.17	0.12	5644	2.51	7.95	0.41	0.31	Italy
1.54	0.48	0.40	2452	2.55	3.92	1.22	1.02	Jamaica
4.18	0.11	0.16	8076	2.28	9.52	0.25	0.35	Japan
1.20	0.62	0.28	1575	2.56	3.07	1.58	0.71	Jordan
3.66	2.01	0.53	3626	2.96	10.81	5.95	1.58	Kazakhstan
0.51	1.19	0.48	140	0.53	0.27	0.63	0.26	Kenya
4.43	0.35	0.23	7391	2.17	9.61	0.75	0.50	Korea
0.91	1.94	0.66	827	3.45	3.14	6.67	2.28	DPR of Korea
10.21	0.58	0.57	14952	2.58	26.36	1.49	1.48	Kuwait
0.55	1.68	0.31	1421	2.02	1.10	3.39	0.62	Kyrgyzstan
1.99	0.45	0.19	2549	1.57	3.13	0.70	0.29	Latvia
1.52	0.27	0.28	2499	2.83	4.32	0.77	0.81	Lebanon
3.17	0.45	0.54	2520	2.39	7.58	1.07	1.29	Libya
2.67	0.61	0.22	3145	1.38	3.69	0.84	0.31	Lithuania
10.51	0.22	0.20	16509	2.37	24.94	0.51	0.47	Luxembourg
1.33	0.74	0.22	3184	3.03	4.03	2.24	0.66	FYR of Macedonia

(b) CO₂ emissions from fuel combustion only. Emissions are calculated using IEA's energy balances and the Revised 1996 IPCC Guidelines.

Region/ Country	Popu- lation (million)	GDP (billion 2000\$)	GDP (PPP) (billion 2000\$)	Energy Prod. (Mtoe)	Net Imports (Mtoe)	TPES (Mtoe)	Elec. Cons. ^(a) (TWh)	CO ₂ Emissions ^(b) (Mt of CO ₂)
Malaysia	24.89	106.79	235.11	88.52	-31.45	56.73	78.80	136.22
Malta	0.40	3.79	6.96	0.00	0.93	0.91	1.93	2.52
Mexico	104.00	619.40	956.80	253.86	-86.15	165.48	187.62	373.68
Republic of Moldova	4.22	1.69	6.70	0.08	3.29	3.38	5.18	7.59
Morocco	29.82	40.22	118.12	0.66	10.60	11.45	17.73	35.54
Mozambique	19.42	5.34	22.08	8.24	0.36	8.57	7.13	1.82
Myanmar	50.00	12.21	267.01	18.99	-4.94	14.14	5.18	9.32
Nepal	26.59	6.15	36.41	8.07	0.99	9.06	1.83	2.97
Netherlands	16.27	398.50	467.45	67.90	29.66	82.15	112.66	185.75
Namibia	2.01	4.09	13.70	0.32	1.02	1.34	2.79	2.66
Nigeria	128.71	51.69	136.53	229.44	-129.69	98.99	13.42	47.59
Netherlands Antilles	0.22	2.75	2.94	0.00	3.40	1.72	0.94	3.66
New Zealand	4.08	61.70	93.88	12.98	5.27	17.64	36.30	32.84
Nicaragua	5.38	4.39	17.96	1.93	1.33	3.30	2.13	4.11
Norway	4.59	180.20	175.91	238.63	-210.84	27.66	113.17	36.31
Oman	2.53	22.71	35.54	58.09	-47.24	11.83	9.72	25.26
Pakistan	152.06	86.07	311.01	58.99	15.44	74.37	64.63	116.05
Panama	3.18	13.24	21.24	0.75	1.19	2.54	4.66	5.46
Paraguay	6.02	8.26	26.62	6.63	-2.62	4.02	4.72	3.73
Peru	27.56	60.81	143.84	9.47	3.81	13.20	21.90	28.88
Philippines	81.62	88.55	346.11	23.39	20.74	44.27	48.73	72.26
Poland	38.18	186.60	445.24	78.81	13.54	91.74	130.51	296.08
Portugal	10.52	108.50	180.95	3.90	22.79	26.55	47.53	60.33
Qatar	0.78	22.47	25.74	75.95	-57.38	18.06	12.32	38.57
Romania	21.69	46.90	169.00	28.11	11.42	38.56	49.24	91.49
Russia	143.85	328.81	1309.12	1158.46	-511.01	641.53	811.65	1528.78
Saudi Arabia	23.95	214.94	304.31	556.21	-413.64	140.41	148.03	324.88
Senegal	11.39	5.25	17.92	1.11	1.64	2.75	2.01	4.11
Serbia and Montenegro	8.15	10.49	21.90	11.62	5.74	17.35	32.57	52.97
Singapore	4.24	102.46	109.42	0.00	47.10	25.59	34.64	38.05

TPES/ Pop (toe/capita)	TPES/ GDP (toe/000 2000\$)	TPES/ GDP (PPP) (toe/000 2000\$ PPP)	Elec. Cons./Pop (kWh/ capita)	CO ₂ / TPES (t CO ₂ / toe)	CO ₂ / Pop (t CO ₂ / capita)	CO ₂ / GDP (kg CO ₂ / 2000\$)	CO ₂ / GDP (PPP) (kg CO ₂ / 2000\$ PPP)	Region/ Country
2.28	0.53	0.24	3166	2.40	5.47	1.28	0.58	Malaysia
2.26	0.24	0.13	4800	2.77	6.28	0.66	0.36	Malta
1.59	0.27	0.17	1804	2.26	3.59	0.60	0.39	Mexico
0.80	2.01	0.50	1228	2.24	1.80	4.50	1.13	Republic of Moldova
0.38	0.28	0.10	595	3.10	1.19	0.88	0.30	Morocco
0.44	1.61	0.39	367	0.21	0.09	0.34	0.08	Mozambique
0.28	1.16	0.05	104	0.66	0.19	0.76	0.03	Myanmar
0.34	1.47	0.25	69	0.33	0.11	0.48	0.08	Nepal
5.05	0.21	0.18	6923	2.26	11.41	0.47	0.40	Netherlands
0.67	0.33	0.10	1389	1.99	1.33	0.65	0.19	Namibia
0.77	1.91	0.73	104	0.48	0.37	0.92	0.35	Nigeria
7.88	0.62	0.58	4321	2.13	16.79	1.33	1.24	Netherlands Antilles
4.32	0.29	0.19	8887	1.86	8.04	0.53	0.35	New Zealand
0.61	0.75	0.18	397	1.25	0.76	0.94	0.23	Nicaragua
6.02	0.15	0.16	24650	1.31	7.91	0.20	0.21	Norway
4.67	0.52	0.33	3836	2.14	9.97	1.11	0.71	Oman
0.49	0.86	0.24	425	1.56	0.76	1.35	0.37	Pakistan
0.80	0.19	0.12	1466	2.15	1.72	0.41	0.26	Panama
0.67	0.49	0.15	785	0.93	0.62	0.45	0.14	Paraguay
0.48	0.22	0.09	794	2.19	1.05	0.47	0.20	Peru
0.54	0.50	0.13	597	1.63	0.89	0.82	0.21	Philippines
2.40	0.49	0.21	3418	3.23	7.75	1.59	0.66	Poland
2.52	0.24	0.15	4516	2.27	5.73	0.56	0.33	Portugal
23.24	0.80	0.70	15852	2.14	49.64	1.72	1.50	Qatar
1.78	0.82	0.23	2271	2.37	4.22	1.95	0.54	Romania
4.46	1.95	0.49	5642	2.38	10.63	4.65	1.17	Russia
5.86	0.65	0.46	6181	2.31	13.56	1.51	1.07	Saudi Arabia
0.24	0.52	0.15	176	1.49	0.36	0.78	0.23	Senegal
2.13	1.65	0.79	3998	3.05	6.50	5.05	2.42	Serbia and Montenegro
6.03	0.25	0.23	8171	1.49	8.97	0.37	0.35	Singapore

(b) CO₂ emissions from fuel combustion only. Emissions are calculated using IEA's energy balances and the Revised 1996 IPCC Guidelines.

Region/ Country	Popu- lation (million)	GDP (billion 2000\$)	GDP (PPP) (billion 2000\$)	Energy Prod. (Mtoe)	Net Imports (Mtoe)	TPES (Mtoe)	Elec. Cons. ^(a) (TWh)	CO ₂ Emissions ^(b) (Mt of CO ₂)
Slovak Republic	5.38	24.30	69.52	6.46	12.30	18.34	27.39	37.66
Slovenia	2.00	21.69	38.43	3.44	3.77	7.17	13.65	15.60
South Africa	45.51	150.74	468.12	156.00	-24.02	131.14	226.46	343.36
Spain	42.69	655.60	957.97	32.53	115.96	142.20	252.91	329.77
Sri Lanka	19.42	18.67	78.34	5.16	4.41	9.44	6.70	12.53
Sudan	35.52	15.41	63.62	29.33	-11.56	17.64	3.28	9.71
Sweden	8.99	263.20	262.16	35.09	20.31	53.94	138.69	52.16
Switzerland	7.48	253.80	225.76	11.82	15.35	27.13	60.62	44.55
Syria	18.58	20.73	61.65	29.52	-11.09	18.44	24.48	47.78
Tajikistan	6.43	1.44	7.10	1.52	1.82	3.33	14.40	5.44
United Rep. of Tanzania	37.63	11.78	23.32	17.53	1.24	18.75	2.01	3.82
Thailand	63.69	150.06	473.56	50.10	47.46	97.07	118.76	206.91
Togo	5.99	1.46	8.45	1.91	0.78	2.69	0.52	1.94
Trinidad and Tobago	1.30	10.48	14.57	29.36	-16.92	11.29	6.06	22.15
Tunisia	9.93	23.21	70.91	6.80	1.99	8.70	11.50	19.72
Turkey	71.79	229.30	528.65	24.11	58.20	81.90	126.77	209.45
Turkmenistan	4.77	4.96	28.95	58.15	-42.59	15.56	8.30	39.33
Ukraine	47.45	44.04	278.85	76.29	64.30	140.33	149.52	304.85
United Arab Emirates	4.32	95.79	95.51	163.98	-109.44	43.81	48.95	103.09
United Kingdom	59.84	1591.10	1661.29	225.21	11.65	233.69	371.31	537.05
United States	293.95	10703.90	10703.90	1641.04	714.51	2325.89	3920.61	5799.97
Uruguay	3.44	20.38	29.78	0.85	2.45	2.86	6.42	5.36
Uzbekistan	26.21	16.74	45.03	56.87	-2.85	53.99	46.44	126.21
Venezuela	26.13	120.07	145.10	196.06	-139.53	56.16	72.12	128.33
Vietnam	82.16	41.25	207.26	65.27	-14.34	50.22	41.20	78.80
Yemen	20.33	10.87	16.42	20.61	-13.18	6.37	3.36	17.26
Former Yugoslavia	20.53	63.24	147.71	23.71	17.09	40.74	75.94	113.60
Zambia	11.48	3.86	9.95	6.36	0.64	6.94	7.94	2.05
Zimbabwe	12.94	5.91	24.55	8.60	0.71	9.30	10.29	9.66

(a) Gross production + imports – exports – transmission/distribution losses.

(b) CO₂ emissions from fuel combustion only. Emissions are calculated using IEA's energy balances and the Revised 1996 IPCC Guidelines.

TPES/ Pop (toe/capita)	TPES/ GDP (toe/000 2000\$)	TPES/ GDP (PPP) (toe/000 2000\$ PPP)	Elec. Cons./Pop (kWh/ capita)	CO ₂ / TPES (t CO ₂ / toe)	CO ₂ / Pop (t CO ₂ / capita)	CO ₂ / GDP (kg CO ₂ / 2000\$)	CO ₂ / GDP (PPP) (kg CO ₂ / 2000\$ PPP)	Region/ Country
3.41	0.75	0.26	5089	2.05	7.00	1.55	0.54	Slovak Republic
3.59	0.33	0.19	6835	2.18	7.81	0.72	0.41	Slovenia
2.88	0.87	0.28	4976	2.62	7.54	2.28	0.73	South Africa
3.33	0.22	0.15	5924	2.32	7.72	0.50	0.34	Spain
0.49	0.51	0.12	345	1.33	0.65	0.67	0.16	Sri Lanka
0.50	1.14	0.28	92	0.55	0.27	0.63	0.15	Sudan
6.00	0.20	0.21	15420	0.97	5.80	0.20	0.20	Sweden
3.63	0.11	0.12	8102	1.64	5.95	0.18	0.20	Switzerland
0.99	0.89	0.30	1317	2.59	2.57	2.31	0.78	Syria
0.52	2.32	0.47	2240	1.63	0.85	3.79	0.77	Tajikistan
0.50	1.59	0.80	53	0.20	0.10	0.32	0.16	United Rep. of Tanzania
1.52	0.65	0.20	1865	2.13	3.25	1.38	0.44	Thailand
0.45	1.84	0.32	87	0.72	0.32	1.33	0.23	Togo
8.68	1.08	0.77	4659	1.96	17.03	2.11	1.52	Trinidad and Tobago
0.88	0.37	0.12	1157	2.27	1.99	0.85	0.28	Tunisia
1.14	0.36	0.15	1766	2.56	2.92	0.91	0.40	Turkey
3.26	3.14	0.54	1740	2.53	8.25	7.94	1.36	Turkmenistan
2.96	3.19	0.50	3151	2.17	6.42	6.92	1.09	Ukraine
10.14	0.46	0.46	11331	2.35	23.86	1.08	1.08	United Arab Emirates
3.91	0.15	0.14	6206	2.30	8.98	0.34	0.32	United Kingdom
7.91	0.22	0.22	13338	2.49	19.73	0.54	0.54	United States
0.83	0.14	0.10	1867	1.87	1.56	0.26	0.18	Uruguay
2.06	3.23	1.20	1772	2.34	4.82	7.54	2.80	Uzbekistan
2.15	0.47	0.39	2760	2.29	4.91	1.07	0.88	Venezuela
0.61	1.22	0.24	501	1.57	0.96	1.91	0.38	Vietnam
0.31	0.59	0.39	165	2.71	0.85	1.59	1.05	Yemen
1.98	0.64	0.28	3700	2.79	5.53	1.80	0.77	Former Yugoslavia
0.60	1.80	0.70	692	0.30	0.18	0.53	0.21	Zambia
0.72	1.57	0.38	795	1.04	0.75	1.63	0.39	Zimbabwe

Sources: Energy data: IEA

Population: OECD/World Bank

GDP and GDP(PPP) (in 2000 US\$): OECD/World Bank/CEPII (Paris)

General Conversion Factors for Energy

To:	TJ	Gcal	Mtoe	MBtu	GWh
From:	<i>multiply by:</i>				
TJ	1	238.8	2.388×10^{-5}	947.8	0.2778
Gcal	4.1868×10^{-3}	1	10^{-7}	3.968	1.163×10^{-3}
Mtoe	4.1868×10^4	10^7	1	3.968×10^7	11630
MBtu	1.0551×10^{-3}	0.252	2.52×10^{-8}	1	2.931×10^{-4}
GWh	3.6	860	8.6×10^{-5}	3412	1

Conversion Factors for Mass

To:	kg	t	lt	st	lb
From:	<i>multiply by:</i>				
kilogram (kg)	1	0.001	9.84×10^{-4}	1.102×10^{-3}	2.2046
tonne (t)	1000	1	0.984	1.1023	2204.6
long ton (lt)	1016	1.016	1	1.120	2240.0
short ton (st)	907.2	0.9072	0.893	1	2000.0
pound (lb)	0.454	4.54×10^{-4}	4.46×10^{-4}	5.0×10^{-4}	1

Conversion Factors for Volume

To:	gal U.S.	gal U.K.	bbl	ft ³	l	m ³
From:	<i>multiply by:</i>					
U.S. Gallon (gal)	1	0.8327	0.02381	0.1337	3.785	0.0038
U.K. Gallon (gal)	1.201	1	0.02859	0.1605	4.546	0.0045
Barrel (bbl)	42.0	34.97	1	5.615	159.0	0.159
Cubic foot (ft ³)	7.48	6.229	0.1781	1	28.3	0.0283
Litre (l)	0.2642	0.220	0.0063	0.0353	1	0.001
Cubic metre (m ³)	264.2	220.0	6.289	35.3147	1000.0	1

Specific Net Calorific Values

Crude Oil*

	toe/tonne
Saudi Arabia	1.016
United States	1.029
Russia	1.005
Iran	1.019
Venezuela	1.069
Mexico	1.019
Norway	1.024
China	1.000
United Kingdom	1.037
UAE	1.018

* for selected countries.

Petroleum Products*

	toe/tonne
Refinery gas	1.150
LPG	1.130
Ethane	1.130
Naphtha	1.075
Motor Gasoline	1.070
Jet Fuel	1.065
Kerosene	1.045
Gas/Diesel Oil	1.035
Heavy Fuel Oil	0.960
Other Products	0.960

* selected products - average values.

Coal*

	toe/tonne
China	0.541
United States	0.632
India	0.441
South Africa	0.564
Australia	0.614
Russia	0.545
Poland	0.527
Kazakhstan	0.444
Ukraine	0.516
Germany	0.548

* steam coal production for selected countries.

Gross Calorific Values

Natural Gas*

	kJ/m ³
Russia	38231
United States	38267
Canada	38210
Netherlands	33320
United Kingdom	39708
Indonesia	40600
Algeria	42000
Uzbekistan	37889
Saudi Arabia	38000
Norway	39520

*for selected countries (production).

Note: to calculate the net heat content, the gross heat content is multiplied by 0.9.

Conventions for Electricity

Figures for electricity production, trade, and final consumption are calculated using the energy content of the electricity (i.e. at a rate of 1 TWh = 0.086 Mtoe). Hydro-electricity production (excluding pumped storage) and electricity produced by other non-thermal means (wind, tide, photovoltaic, etc.) are accounted for similarly using 1 TWh = 0.086 Mtoe. However, the primary energy equivalent of nuclear electricity is calculated from the gross generation by assuming a 33% conversion efficiency, i.e. 1 TWh = (0.086 ÷ 0.33) Mtoe. In the case of electricity produced from geothermal heat, if the actual geothermal efficiency is not known, then the primary equivalent is calculated assuming an efficiency of 10%, so 1 TWh = (0.086 ÷ 0.1) Mtoe.

Glossary

Coal	<i>Coal</i> includes all coal, both primary (including hard coal and lignite) and derived fuels (including patent fuel, coke oven coke, gas coke, BKB, coke oven gas and blast furnace gas). Peat is also included in this category.
Crude Oil	<i>Crude Oil</i> comprises crude oil, natural gas liquids, refinery feedstocks and additives as well as other hydrocarbons.
Petroleum Products	<i>Petroleum products</i> comprise refinery gas, ethane, LPG, aviation gasoline, motor gasoline, jet fuels, kerosene, gas/diesel oil, heavy fuel oil, naphtha, white spirit, lubricants, bitumen, paraffin waxes, petroleum coke and other petroleum products.
Gas	<i>Gas</i> includes natural gas (excluding natural gas liquids) and gas works gas. The latter appears as a positive figure in the "gas works" row but is not part of indigenous production.
Nuclear	<i>Nuclear</i> shows the primary heat equivalent of the electricity produced by a nuclear power plant with an average thermal efficiency of 33 per cent.
Hydro	<i>Hydro</i> shows the energy content of the electricity produced in hydro power plants. Hydro output <i>excludes</i> output from pumped storage plants.
Combustible Renewables & Waste	<i>Combustible Renewables & Waste</i> comprises biomass and animal products (wood, vegetal waste, ethanol, animal materials/ wastes and sulphite lyes), municipal waste (wastes produced by the residential, commercial and public service sectors that are collected by local authorities for disposal in a central location for the production of heat and/or power) and industrial waste.
Other	<i>Other</i> includes geothermal, solar, wind, tide, wave energy, electricity and heat. Unless the actual efficiency of the geothermal process is known, the quantity of geothermal energy entering electricity generation is inferred from the electricity production at geothermal plants assuming an average thermal efficiency of 10 per cent. For solar, wind, tide and wave energy, the quantities entering electricity generation are equal to the electrical energy generated. Direct use of geothermal and solar heat is also included here. Electricity is accounted for at the same heat value as electricity in final consumption (i.e. 1 GWh = 0.000086 Mtoe). Heat includes heat that is produced for sale and is accounted for in the transformation sector.

Indigenous production

Indigenous production is the production of primary energy, i.e. hard coal, lignite, peat, crude oil, NGLs, natural gas, combustible renewables & waste, nuclear, hydro, geothermal, solar and the heat from heat pumps that is extracted from the ambient environment. Production is calculated after removal of impurities.

Imports and exports

Imports and exports comprise amounts having crossed the national territorial boundaries of the country, whether or not customs clearance has taken place.

a) Oil and gas

Quantities of crude oil and oil products imported or exported under processing agreements (i.e. refining on account) are included. Quantities of oil in transit are excluded. Crude oil, NGL and natural gas are reported as coming from the country of origin; refinery feedstocks and oil products are reported as coming from the country of last consignment.

Re-exports of oil imported for processing within bonded areas are shown as exports of product from the processing country to the final destination.

b) Coal

Imports and exports comprise the amount of fuels obtained from or supplied to other countries, whether or not there is an economic or customs union between the relevant countries. Coal in transit is not included.

c) Electricity

Amounts are considered as imported or exported when they have crossed the national territorial boundaries of the country.

International marine bunkers

International marine bunkers covers those quantities delivered to ships of all flags that are engaged in international navigation. The international navigation may take place at sea, on inland lakes and waterways, and in coastal waters. Consumption by ships engaged in domestic navigation is excluded. The domestic/international split is determined on the basis of port of departure and port of arrival, and not by the flag or nationality of the ship. Consumption by fishing vessels and by military forces is also excluded.

Stock changes

Stock changes reflect the difference between opening stock levels on the first day of the year and closing levels on the last day of the year of stocks on national territory held by producers, importers, energy transformation industries and large consumers. A stock build is shown as a negative number, and a stock draw as a positive number.

Total Primary Energy Supply (TPES)

Total primary energy supply (TPES) is made up of indigenous production + imports - exports - international marine bunkers ± stock changes. For the World Total, international marine bunkers are not subtracted from TPES.

Transfers

Transfers include both interproduct transfers and products transferred.

Statistical differences

Statistical differences is a category which includes the sum of the unexplained statistical differences for individual fuels, as they appear in the basic energy statistics. It also includes the statistical differences that arise because of the variety of conversion factors in the coal and oil columns.

Electricity plants

Electricity plants refers to plants which are designed to produce electricity only. If one or more units of the plant is a CHP unit (and the inputs and outputs can not be distinguished on a unit basis) then the whole plant is designated as a CHP plant. Both main activity producers and autoproducer plants are included here.

Combined heat and power plants

Combined heat and power plants refers to plants which are designed to produce both heat and electricity. UNIPED refers to these as co-generation power stations. If possible, fuel inputs and electricity/heat outputs are on a unit basis rather than on a plant basis. However, if data are not available on a unit basis, the convention for defining a CHP plant noted above is adopted. Both main activity producers and autoproducer plants are included here.

Heat plants

Heat plants refers to plants (including heat pumps and electric boilers) designed to produce heat only, which is sold to a third party under the provisions of a contract. Both main activity producers and autoproducer plants are included here.

Gas works

Gas works is treated similarly to electricity generation, with the quantity produced appearing as a positive figure in the gas column, inputs as negative entries in the coal and petroleum products columns, and conversion losses appearing in the total column.

Petroleum refineries

The row *Petroleum refineries* shows the use of primary energy for the manufacture of finished petroleum products and the corresponding output. Thus, the total reflects transformation losses. In certain cases the data in the total column are positive numbers. This can be due to either problems in the primary refinery balance or to the fact that the IEA is using standardised net calorific values for the petroleum products.

Coal transformation	<i>Coal transformation</i> contains losses in transformation of coal from primary to secondary fuels and from secondary to tertiary fuels (hard coal to coke, coke to blast furnace gas, lignite to BKB, etc.).
Liquefaction	<i>Liquefaction</i> includes diverse liquefaction processes, such as coal liquefaction plants and gas-to-liquid plants.
Other transformation	<i>Other transformation</i> covers non-specified transformation not shown elsewhere. It also includes backflows from the petrochemical sector.
Own use	<i>Own use</i> contains the primary and secondary energy consumed by transformation industries for heating, pumping, traction and lighting purposes [International Standard Industrial Classification (ISIC) Divisions 10, 11, 12, 23 and 40]. These are shown as negative figures. Included here are, for example, coal mines' own use of energy, power plants' own consumption (which includes net electricity consumed for pumped storage), and energy used for oil and gas extraction.
Distribution and transmission losses	<i>Distribution and transmission losses</i> includes losses in gas distribution, electricity transmission and coal transport.
Total Final Consumption (TFC)	<i>Total final consumption (TFC)</i> is the sum of consumption by the different end-use sectors. Backflows from the petrochemical industry are not included in final consumption.
Industry sector	Consumption in the <i>Industry</i> sector includes the following sub-sectors (energy used for transport by industry is not included here but reported under transport): <ul style="list-style-type: none"> ■ <i>Iron and steel industry</i> [ISIC Group 271 and Class 2731]; ■ <i>Chemical industry</i> [ISIC Division 24]; ■ <i>Non-ferrous metals basic industries</i> [ISIC Group 272 and Class 2732]; ■ <i>Non-metallic mineral products</i> such as glass, ceramic, cement, etc. [ISIC Division 26]; ■ <i>Transport equipment</i> [ISIC Divisions 34 and 35]; ■ <i>Machinery</i>. Fabricated metal products, machinery and equipment other than transport equipment [ISIC Divisions 28, 29, 30, 31 and 32]; ■ <i>Mining (excluding fuels) and quarrying</i> [ISIC Divisions 13 and 14]; ■ <i>Food and tobacco</i> [ISIC Divisions 15 and 16]; ■ <i>Paper, pulp and print</i> [ISIC Divisions 21 and 22];

Industry sector (ctd.)

- *Wood and wood products* (other than pulp and paper) [ISIC Division 20];
- *Construction* [ISIC Division 45];
- *Textile and leather* [ISIC Divisions 17, 18 and 19];
- *Non-specified* (any manufacturing industry not included above) [ISIC Divisions 25, 33, 36 and 37].

Transport sector

The *Transport sector* includes all fuels for transport except international marine bunkers [ISIC Divisions 60, 61 and 62]. It includes transport in the industry sector and covers road, railway, aviation, domestic navigation, fuels used for transport of materials by pipeline and non-specified transport. Fuel used for ocean, coastal and inland fishing should be included in fishing (other sectors).

Other sectors

Other sectors cover agriculture/forestry [ISIC Divisions 01 and 02], fishing [ISIC Division 05], residential, commercial and public services [ISIC Divisions 41, 50, 51, 52, 55, 63, 64, 65, 66, 67, 70, 71, 72, 73, 74, 75, 80, 85, 90, 91, 92, 93, 95 and 99], and non-specified consumption.

Non-energy use

Non-energy use covers use of *other petroleum products* such as white spirit, paraffin waxes, lubricants, bitumen and other products. They are shown separately under the heading *non-energy use* and are included in total final consumption. It is assumed that the use of these products is exclusively *non-energy use*. An exception to this treatment is petroleum coke which is shown as *non-energy use* only when there is evidence of such use; otherwise it is shown under energy use in industry or in other sectors. Non-energy use of coal includes carbon blacks, graphite electrodes, etc. and is also shown separately by sector. Non-energy use also includes petrochemical feedstocks. The petrochemical industry includes cracking and reforming processes for the purpose of producing ethylene, propylene, butylene, sythesis gas, aromatics, butadiene and other hydrocarbon-based raw materials in processes such as steam cracking, aromatics plants and steam reforming.

GEOGRAPHICAL COVERAGE

OECD	Australia, Austria, Belgium, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States.
Middle East	Bahrain, Islamic Republic of Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syria, United Arab Emirates and Yemen.
Former USSR	Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Republic of Moldova, Russia, Tajikistan, Turkmenistan, Ukraine and Uzbekistan.
Non-OECD Europe	Albania, Bosnia-Herzegovina, Bulgaria, Croatia, Cyprus, Gibraltar, the Former Yugoslav Republic of Macedonia (FYROM), Malta, Romania, Serbia & Montenegro and Slovenia.
China	People's Republic of China and Hong Kong (China).
Asia	Asia includes Bangladesh, Brunei Darussalam, Chinese Taipei, India, Indonesia, DPR of Korea, Malaysia, Myanmar, Nepal, Pakistan, Philippines, Singapore, Sri Lanka, Thailand, Vietnam and Other Asia.
Latin America	Latin America includes Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Jamaica, Netherlands Antilles, Nicaragua, Panama, Paraguay, Peru, Trinidad and Tobago, Uruguay, Venezuela and Other Latin America.
Africa	Africa includes Algeria, Angola, Benin, Botswana, Cameroon, Congo, Democratic Republic of Congo, Côte d'Ivoire, Egypt, Eritrea, Ethiopia, Gabon, Ghana, Kenya, Libya, Morocco, Mozambique, Namibia, Nigeria, Senegal, South Africa, Sudan, United Republic of Tanzania, Togo, Tunisia, Zambia, Zimbabwe and Other Africa.

Ten Annual Publications

Energy Statistics of OECD Countries

No other publication offers such in-depth statistical coverage. It is intended for anyone involved in analytical or policy work related to energy issues. It contains data on energy supply and consumption in original units for coal, oil, natural gas, combustible renewables/wastes and products derived from these primary fuels, as well as for electricity and heat. Data are presented for the two most recent years available in detailed supply and consumption tables. Historical tables summarise data on production, trade and final consumption. Each issue includes definitions of products and flows and explanatory notes on the individual country data.

Price: € 110

Energy Balances of OECD Countries

A companion volume to *Energy Statistics of OECD Countries*, this publication presents standardised energy balances expressed in million tonnes of oil equivalent. Energy supply and consumption data are divided by main fuel: coal, oil, gas, nuclear, hydro, geothermal/solar, combustible renewables/wastes, electricity and heat. This allows for easy comparison of the contributions each fuel makes to the economy and their interrelationships through the conversion of one fuel to another. All of this is essential for estimating total energy supply, forecasting, energy conservation, and analysing the potential for interfuel substitution. Complete energy balances are presented for the two most recent years available. Historical tables summarise key energy and economic indicators as well as data on production, trade and final consumption. Each issue includes definitions of products and flows and explanatory notes on the individual country data as well as conversion factors from original units to tonnes of oil equivalent.

Price: € 110

Energy Statistics of Non-OECD Countries

This publication offers the same in-depth statistical coverage as the homonymous publication covering OECD countries. It includes data in original units for more than 100 individual countries and nine main regions. The consistency of OECD and non-OECD countries' detailed statistics provides an accurate picture of the global energy situation. For a description of the content, please see *Energy Statistics of OECD Countries* above.

Price: € 110

Energy Balances of Non-OECD Countries

A companion volume to the publication *Energy Statistics of Non-OECD Countries*, this publication presents energy balances in million tonnes of oil equivalent and key economic and energy indicators for more than 100 individual countries and nine main regions. It offers the same statistical coverage as the homonymous publication covering OECD Countries, and thus provides an accurate picture of the global energy situation. For a description of the content, please see *Energy Balances of OECD Countries* above.

Price: € 110

Electricity Information

This reference document provides essential statistics on electricity and heat for each OECD Member countries by bringing together information on production, installed capacity, input energy mix to electricity and heat production, input fuel prices, consumption, end-user electricity prices and electricity trades. The document also presents selected non-OECD country statistics on the main electricity and heat flows. It is an essential document for electricity and heat market and policy analysts.

Price: € 130

Coal Information

This well-established publication provides detailed information on past and current evolution of the world coal market. It presents country specific statistics for OECD member countries and selected non-OECD countries on coal production, demand, trade and prices. This publication represents a key reference tool for all those involved in the coal supply or consumption stream, as well as institutions and governments involved in market and policy analysis of the world coal market.

Price: € 150

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A detailed reference work on gas supply and demand, covering not only the OECD countries but also the rest of the world. Contains essential information on LNG and pipeline trade, gas reserves, storage capacity and prices. The main part of the book, however, concentrates on OECD countries, showing a detailed gas supply and demand balance for each individual country and for the three OECD regions: North America, Europe and Asia-Pacific, as well as a breakdown of gas consumption by end-user. Import and export data are reported by source and destination.

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