

APEC

ENERGY HANDBOOK 2005

**ENERGY WORKING GROUP
NOVEMBER 2007**

COORDINATING AGENCY:
THE ENERGY DATA AND MODELLING CENTER
THE INSTITUTE OF ENERGY ECONOMICS, JAPAN



Asia-Pacific
Economic Cooperation

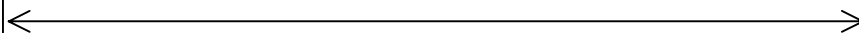
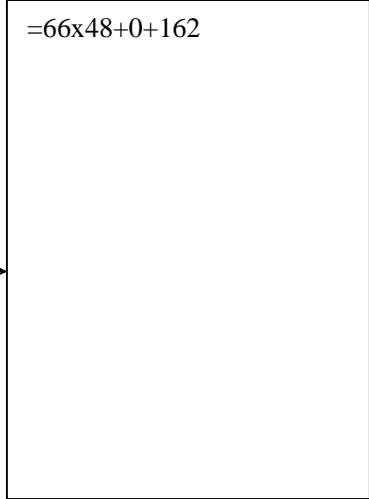
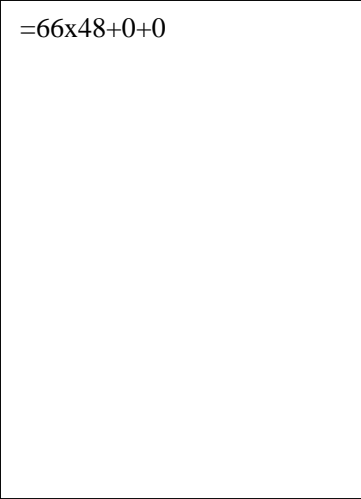
Prepared by

The Energy Data and Modelling Center
The Institute of Energy Economics, Japan
Inui bldg., Kachidoki, 1-13-1, Kachidoki,
Chuo-ku, Tokyo, 104-0054, Japan
Phone: (81) 3-5547-0215 Facsimile: (81) 3-5547-0226
E-mail: wwwadmin@ieej.or.jp
Website: www.ieej.or.jp/egeda

For the APEC Secretariat
35 Heng Mui Keng Terrace Singapore 119616
Phone: (65) 6775-6012 Facsimile: (65) 6775-6013
E-mail: info@apec.org
Website: www.apec.org

Copyright © 2007 APEC Secretariat

APEC#207-RE-03.1 ISSN 0219-7634



A P E C ENERGY HANDBOOK 2005

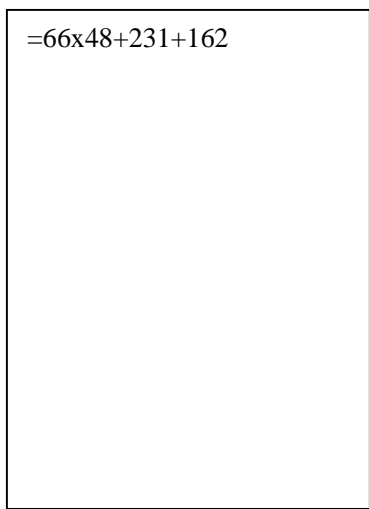


ASIA-PACIFIC ECONOMIC COOPERATION

Energy Working Group

November 2007

Coordinating Agency:
**The Energy Data and Modelling Center
The Institute of Energy Economics, Japan**

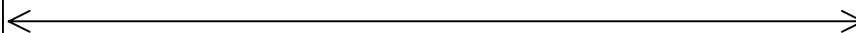


=66x48+0+0

=66x48+0+162

=66x48+231+0

=66x48+231+162



Preface

The APEC Energy Handbook 2005 is a handy, pocket-sized summary of key energy data and a supplement to APEC Energy Statistics 2005 which has been released in November 2007 by the APEC Secretariat in Singapore.

This handbook consists of the following parts:

1. Primary Energy Supply
2. Transformation
3. Final Energy Consumption
4. Energy Balances
5. Energy Outlook
6. Energy Indicators

The Supply part describes Total Primary Energy Supply by energy while Transformation part shows Oil refining and Power Generation. The Consumption part indicates both Final Energy Consumption by Sectors and Consumption by fossil energy. The Energy Balances part includes regional energy balance tables while Outlook part shows projected energy demand by year 2030 which was prepared by Asia Pacific Energy Research Centre as of September 2006. The Energy Indicators part contains several indicators based on Population, GDP and Energy consumption.

This handbook has been derived from the APEC Energy Database, the purpose of which is to establish a comprehensive and consistent energy database within the APEC region. This database will be used to assist in the identification of significant trends in energy supply and demand consistent with projects and priorities under the APEC Energy Working Group. It has been prepared in close cooperation with the twenty-one member economies.

Inquiries about figures and graphs in this handbook could be addressed to The Energy Data and Modelling Center, The Institute of Energy Economics, Japan.

Address: 13-1, Kachidoki 1, Chuo-ku, Tokyo 104-0054, Japan;
Telephone: +81-3-5547-0215; Facsimile: +81-3-5547-0226;
E-mail: wwwadmin@ieej.or.jp; Web: <http://www.ieej.or.jp/egeda/>

=66x48+0+0

=66x48+0+162

Definition of Region

	APEC 21	APEC 20	East Asia	Other East Asia	South-east Asia	Oceania	North America	Latin America
Australia	0	0				0		
Brunei Darussalam	0	0			0			
Canada	0	0					0	
Chile	0	0						0
China	0	0	0					
Hong Kong, China	0	0	0	0				
Indonesia	0	0			0			
Japan	0	0	0					
Republic of Korea	0	0	0	0				
Malaysia	0	0			0			
Mexico	0	0						0
New Zealand	0	0				0		
Papua New Guinea	0	0				0		
Peru	0	0						0
Philippines	0	0			0			
Russia	0							
Singapore	0	0			0			
Chinese Taipei	0	0	0	0				
Thailand	0	0			0			
United States of America	0	0					0	
Viet Nam	0	0			0			

=66x48+231+0

=66x48+231+162

=66x48+0+0

=66x48+0+162

114

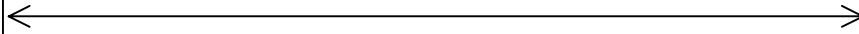


Table of Contents

Primary Energy Supply 2

Transformation..... 18

Final Energy Consumption 24

Energy Balances..... 38

Energy Outlook..... 60

Energy Indicators 62

Glossary 68

=66x48+231+0

=66x48+231+162

=66x48+0+0

=66x48+0+162

Primary Energy Supply

Total Primary Energy Supply by Energy APEC 20

Mtoe

1990 1992 1994 1996 1998 2000 2002 2004

Coal++ Oil Gas++ Nuclear Hydro Others

	Mtoe					
	1990	1995	2000	2003	2004	2005
Coal++	1,167.4	1,360.1	1,455.1	1,655.8	1,889.7	2,036.5
Oil	1,511.7	1,708.8	1,920.0	2,007.7	2,109.1	2,132.1
Gas++	631.9	770.2	883.5	908.8	911.7	931.1
Nuclear	252.6	318.8	355.1	342.8	369.9	376.9
Hydro	80.0	95.3	96.2	102.3	108.7	112.8
Others	120.1	136.6	153.6	150.5	164.3	168.5
Total	3,763.7	4,389.8	4,863.5	5,168.0	5,553.4	5,758.0

	Share (%)					
	1990	1995	2000	2003	2004	2005
Coal++	31.0	31.0	29.9	32.0	34.0	35.4
Oil	40.2	38.9	39.5	38.8	38.0	37.0
Gas++	16.8	17.5	18.2	17.6	16.4	16.2
Nuclear	6.7	7.3	7.3	6.6	6.7	6.5
Hydro	2.1	2.2	2.0	2.0	2.0	2.0
Others	3.2	3.1	3.2	2.9	3.0	2.9

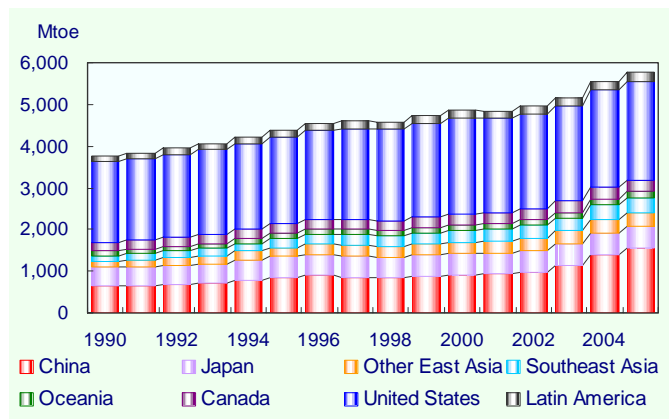
2

APEC ENERGY HANDBOOK 2005

=66x48+231+0

=66x48+231+162

Total Primary Energy Supply by Region APEC 20



Primary Energy Supply

	Mtoe					
	1990	1995	2000	2003	2004	2005
China	654.0	858.0	905.2	1,145.9	1,399.7	1,544.6
Japan	432.5	490.8	509.3	506.3	516.7	519.4
Other East Asia	150.0	223.8	285.0	316.1	334.3	338.7
Southeast Asia	138.9	217.6	285.4	314.3	353.0	368.2
Oceania	104.4	111.6	129.4	132.3	133.4	141.3
Canada	209.4	232.4	250.5	263.0	269.4	272.7
United States	1,928.1	2,095.1	2,312.0	2,295.1	2,341.7	2,355.6
Latin America	146.3	160.3	186.7	194.8	205.1	217.5
APEC 20	3,763.7	4,389.8	4,863.5	5,168.0	5,553.4	5,758.0

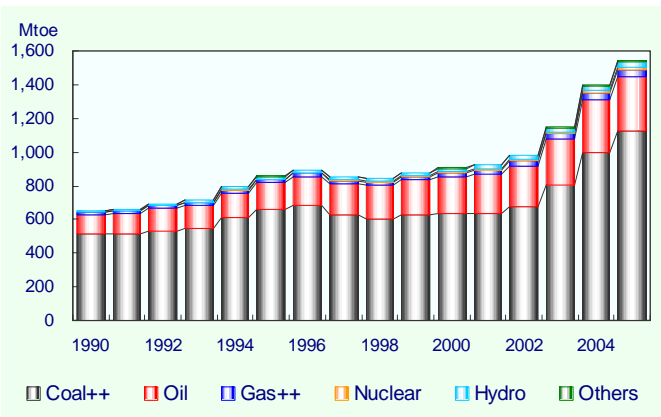
	Share (%)					
	1990	1995	2000	2003	2004	2005
China	17.4	19.5	18.6	22.2	25.2	26.8
Japan	11.5	11.2	10.5	9.8	9.3	9.0
Other East Asia	4.0	5.1	5.9	6.1	6.0	5.9
Southeast Asia	3.7	5.0	5.9	6.1	6.4	6.4
Oceania	2.8	2.5	2.7	2.6	2.4	2.5
Canada	5.6	5.3	5.2	5.1	4.9	4.7
United States	51.2	47.7	47.5	44.4	42.2	40.9
Latin America	3.9	3.7	3.8	3.8	3.7	3.8

=66x48+0+0

=66x48+0+162

Primary Energy Supply

Total Primary Energy Supply by Energy China



	Mtoe					
	1990	1995	2000	2003	2004	2005
Coal++	512.2	659.2	631.2	801.6	993.8	1,122.1
Oil	114.4	158.5	224.7	273.8	319.8	324.4
Gas++	14.2	16.7	22.4	30.9	37.0	44.7
Nuclear	-	3.3	4.4	11.3	13.2	13.8
Hydro	10.9	16.4	19.1	24.4	30.4	34.1
Others	2.3	3.8	3.4	4.0	5.6	5.5
Total	654.0	858.0	905.2	1,145.9	1,399.7	1,544.6

	Share (%)					
	1990	1995	2000	2003	2004	2005
Coal++	78.3	76.8	69.7	70.0	71.0	72.6
Oil	17.5	18.5	24.8	23.9	22.8	21.0
Gas++	2.2	1.9	2.5	2.7	2.6	2.9
Nuclear	-	0.4	0.5	1.0	0.9	0.9
Hydro	1.7	1.9	2.1	2.1	2.2	2.2
Others	0.3	0.4	0.4	0.3	0.4	0.4

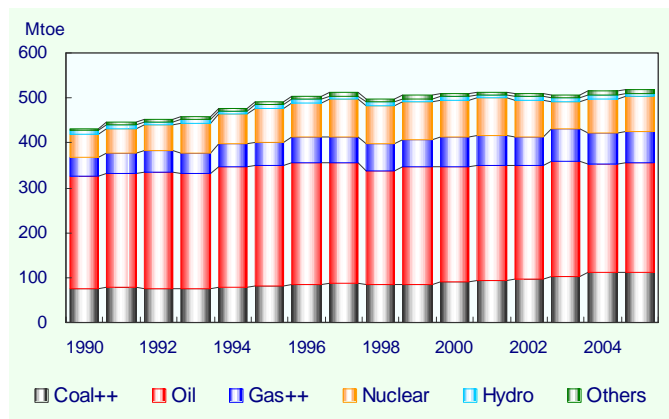
=66x48+231+0

=66x48+231+162

=66x48+0+0

=66x48+0+162

Total Primary Energy Supply by Energy Japan



Primary Energy Supply

	Mtoe					
	1990	1995	2000	2003	2004	2005
Coal++	75.6	82.8	91.0	102.5	111.1	110.9
Oil	249.1	267.5	255.8	257.4	243.2	244.5
Gas++	43.5	52.0	64.9	71.8	69.3	70.5
Nuclear	51.0	75.0	83.3	60.0	74.5	76.4
Hydro	7.8	7.1	7.5	8.5	8.9	7.5
Others	5.5	6.4	6.7	6.1	9.7	9.6
Total	432.5	490.8	509.3	506.3	516.7	519.4

	Share (%)					
	1990	1995	2000	2003	2004	2005
Coal++	17.5	16.9	17.9	20.3	21.5	21.4
Oil	57.6	54.5	50.2	50.8	47.1	47.1
Gas++	10.1	10.6	12.8	14.2	13.4	13.6
Nuclear	11.8	15.3	16.4	11.9	14.4	14.7
Hydro	1.8	1.5	1.5	1.7	1.7	1.4
Others	1.3	1.3	1.3	1.2	1.9	1.8

=66x48+231+0

=66x48+231+162

=66x48+0+0

=66x48+0+162

Primary Energy Supply

Total Primary Energy Supply by Energy Other East Asia

	Mtoe					
	1990	1995	2000	2003	2004	2005
Coal++	42.1	48.4	71.1	88.3	92.8	95.5
Oil	79.3	134.0	147.5	149.8	154.7	149.1
Gas++	4.5	12.0	24.6	30.5	37.2	39.9
Nuclear	22.3	26.7	38.4	43.9	44.4	48.7
Hydro	1.3	1.2	1.2	1.2	1.1	1.1
Others	0.6	1.5	2.2	2.5	4.2	4.4
Total	150.0	223.8	285.0	316.1	334.3	338.7

	Share (%)					
	1990	1995	2000	2003	2004	2005
Coal++	28.1	21.6	24.9	27.9	27.8	28.2
Oil	52.8	59.9	51.7	47.4	46.3	44.0
Gas++	3.0	5.4	8.6	9.6	11.1	11.8
Nuclear	14.9	11.9	13.5	13.9	13.3	14.4
Hydro	0.8	0.6	0.4	0.4	0.3	0.3
Others	0.4	0.7	0.8	0.8	1.2	1.3

6

APEC ENERGY HANDBOOK 2005

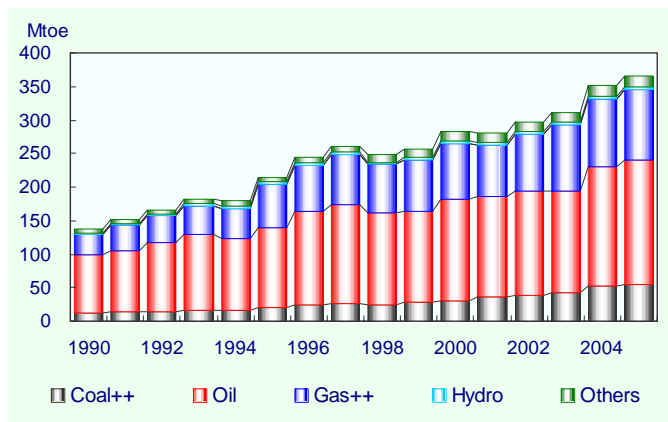
=66x48+231+0

=66x48+231+162

=66x48+0+0

=66x48+0+162

Total Primary Energy Supply by Energy Southeast Asia



	Mtoe					
	1990	1995	2000	2003	2004	2005
Coal++	12.5	19.9	29.6	41.5	51.9	55.5
Oil	86.5	119.9	152.0	153.0	178.9	184.5
Gas++	29.4	64.0	82.6	97.7	100.0	106.1
Nuclear	-	-	-	-	-	-
Hydro	2.7	3.7	3.9	4.2	4.1	4.1
Others	5.7	7.5	14.7	14.2	15.9	15.7
Total	136.8	214.9	282.7	310.5	350.8	365.9

	Share (%)					
	1990	1995	2000	2003	2004	2005
Coal++	9.1	9.2	10.5	13.4	14.8	15.2
Oil	63.2	55.8	53.8	49.3	51.0	50.4
Gas++	21.5	29.8	29.2	31.5	28.5	29.0
Nuclear	-	-	-	-	-	-
Hydro	2.0	1.7	1.4	1.3	1.2	1.1
Others	4.2	3.5	5.2	4.6	4.5	4.3

Primary Energy Supply

=66x48+231+0

=66x48+231+162

=66x48+0+0

=66x48+0+162

Primary Energy Supply

Total Primary Energy Supply by Energy Oceania

The chart illustrates the growth of primary energy supply in Oceania from 1990 to 2005. Coal remains the dominant source, followed by oil and gas. Hydro and other sources contribute smaller but stable shares.

	Mtoe					
	1990	1995	2000	2003	2004	2005
Coal++	36.1	38.7	49.2	50.1	51.3	56.3
Oil	38.9	41.1	43.7	44.0	42.8	46.3
Gas++	19.3	21.0	24.3	26.0	26.7	26.3
Nuclear	-	-	-	-	-	-
Hydro	3.3	3.8	3.7	3.5	3.8	3.5
Others	6.8	7.1	8.6	8.7	8.9	9.0
Total	104.4	111.6	129.4	132.3	133.4	141.3

	Share (%)					
	1990	1995	2000	2003	2004	2005
Coal++	34.6	34.6	38.0	37.9	38.4	39.8
Oil	37.3	36.8	33.8	33.3	32.1	32.8
Gas++	18.5	18.8	18.8	19.7	20.0	18.6
Nuclear	-	-	-	-	-	-
Hydro	3.2	3.4	2.8	2.7	2.8	2.4
Others	6.5	6.4	6.6	6.6	6.6	6.3

8

APEC ENERGY HANDBOOK 2005

=66x48+231+0

=66x48+231+162

=66x48+0+0

=66x48+0+162

114

Total Primary Energy Supply by Energy Canada

Primary Energy Supply

	Mtoe					
	1990	1995	2000	2003	2004	2005
Coal++	24.3	25.2	28.8	30.0	28.4	28.0
Oil	77.7	79.0	89.1	93.5	98.7	98.1
Gas++	54.7	67.1	74.3	79.7	78.0	80.7
Nuclear	19.0	25.5	19.0	19.5	23.6	24.0
Hydro	25.5	28.9	30.8	29.0	29.3	31.3
Others	8.2	6.8	8.5	11.3	11.4	10.7
Total	209.4	232.4	250.5	263.0	269.4	272.7

	Share (%)					
	1990	1995	2000	2003	2004	2005
Coal++	11.6	10.8	11.5	11.4	10.6	10.3
Oil	37.1	34.0	35.6	35.5	36.6	36.0
Gas++	26.1	28.9	29.6	30.3	29.0	29.6
Nuclear	9.1	11.0	7.6	7.4	8.7	8.8
Hydro	12.2	12.4	12.3	11.0	10.9	11.5
Others	3.9	2.9	3.4	4.3	4.2	3.9

APEC ENERGY HANDBOOK 2005

9

=66x48+231+0

=66x48+231+162

=66x48+0+0

=66x48+0+162

Primary Energy Supply

Total Primary Energy Supply by Energy United States of America

The chart illustrates the composition of the United States' primary energy supply from 1990 to 2004. Coal and oil are the dominant sources, with oil's share increasing significantly over the period. Gas supply also shows a steady increase. Nuclear, hydro, and other sources contribute smaller but growing portions of the total supply.

	Mtoe					
	1990	1995	2000	2003	2004	2005
Coal++	458.4	478.1	543.6	530.5	548.7	555.5
Oil	770.2	807.2	897.2	928.1	955.3	961.9
Gas++	438.4	507.4	547.9	518.7	509.8	507.8
Nuclear	159.4	186.0	207.9	205.3	212.0	211.3
Hydro	24.9	29.1	24.1	26.3	25.6	25.0
Others	76.9	87.4	91.3	86.1	90.3	94.2
Total	1,928.1	2,095.1	2,312.0	2,295.1	2,341.7	2,355.6

	Share (%)					
	1990	1995	2000	2003	2004	2005
Coal++	23.8	22.8	23.5	23.1	23.4	23.6
Oil	39.9	38.5	38.8	40.4	40.8	40.8
Gas++	22.7	24.2	23.7	22.6	21.8	21.6
Nuclear	8.3	8.9	9.0	8.9	9.1	9.0
Hydro	1.3	1.4	1.0	1.1	1.1	1.1
Others	4.0	4.2	4.0	3.8	3.9	4.0

10

APEC ENERGY HANDBOOK 2005

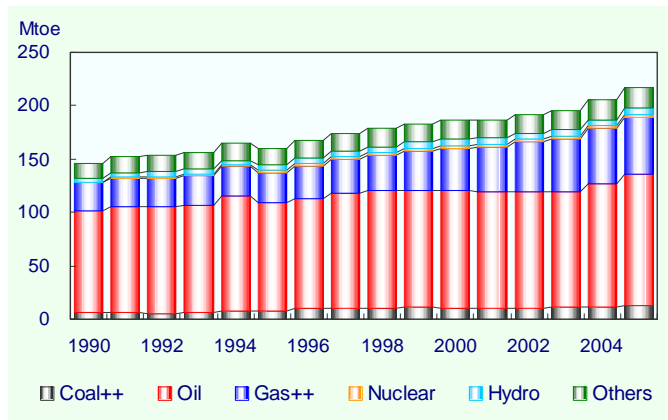
=66x48+231+0

=66x48+231+162

=66x48+0+0

=66x48+0+162

Total Primary Energy Supply by Energy Latin America



Primary Energy Supply

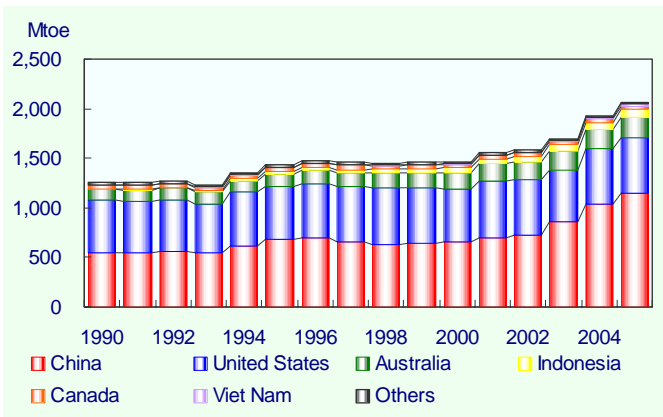
	Mtoe					
	1990	1995	2000	2003	2004	2005
Coal++	6.2	8.0	10.6	11.3	11.7	12.6
Oil	95.5	101.1	109.4	107.5	115.1	122.6
Gas++	25.9	27.9	40.5	50.4	52.0	53.7
Nuclear	0.8	2.2	2.1	2.7	2.4	2.8
Hydro	3.7	5.1	5.9	5.2	5.5	6.2
Others	14.3	16.1	18.2	17.7	18.4	19.5
Total	146.3	160.3	186.7	194.8	205.1	217.5

	Share (%)					
	1990	1995	2000	2003	2004	2005
Coal++	4.2	5.0	5.7	5.8	5.7	5.8
Oil	65.3	63.0	58.6	55.2	56.1	56.4
Gas++	17.7	17.4	21.7	25.9	25.4	24.7
Nuclear	0.5	1.4	1.1	1.4	1.2	1.3
Hydro	2.5	3.2	3.2	2.7	2.7	2.8
Others	9.8	10.0	9.7	9.1	9.0	9.0

=66x48+231+0

=66x48+231+162

Indigenous Production of Coal APEC 20



	Mtoe					
	1990	1995	2000	2003	2004	2005
China	540.0	680.4	649.6	861.0	1,043.0	1,143.3
United States	539.2	531.6	544.8	525.5	553.1	564.1
Australia	106.1	127.8	164.6	185.2	192.6	204.7
Indonesia	5.8	24.0	44.0	62.1	72.0	82.8
Canada	37.9	40.8	34.4	30.3	32.2	31.8
Viet Nam	2.6	4.7	6.5	10.6	14.5	19.0
Others	24.3	19.6	17.6	16.7	17.4	17.5
APEC 20	1,255.9	1,428.8	1,461.6	1,691.5	1,924.7	2,063.0

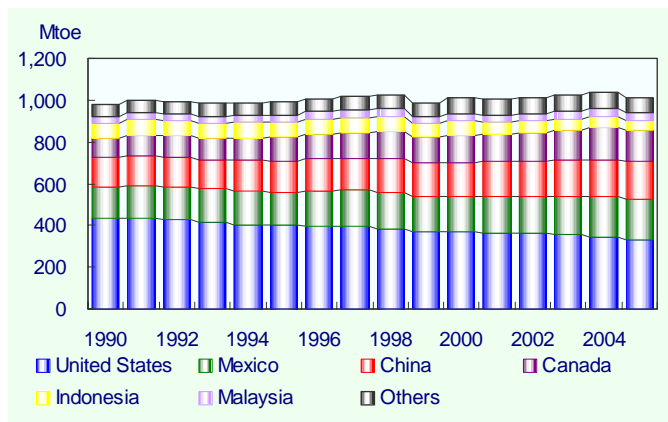
	Share (%)					
	1990	1995	2000	2003	2004	2005
China	43.0	47.6	44.4	50.9	54.2	55.4
United States	42.9	37.2	37.3	31.1	28.7	27.3
Australia	8.4	8.9	11.3	11.0	10.0	9.9
Indonesia	0.5	1.7	3.0	3.7	3.7	4.0
Canada	3.0	2.9	2.4	1.8	1.7	1.5
Viet Nam	0.2	0.3	0.4	0.6	0.8	0.9
Others	1.9	1.4	1.2	1.0	0.9	0.8

Coal: Hard Coal, Anthracite and Lignite

=66x48+0+0

=66x48+0+162

Indigenous Production of Crude Oil APEC 20



	1980	1990	2000	2003	2004	2005
United States	490.8	432.5	368.6	355.9	345.5	330.0
Mexico	102.8	154.1	171.2	185.7	194.8	197.1
China	105.9	138.4	163.0	169.6	175.9	181.4
Canada	85.3	94.5	129.0	144.8	150.0	148.2
Indonesia	76.7	70.7	69.0	53.0	53.4	48.1
Malaysia	13.7	30.6	33.8	37.0	38.7	36.7
Others	44.9	57.0	76.5	76.9	81.2	72.9
APEC 20	920.2	977.9	1,011.1	1,022.9	1,039.5	1,014.4

	1980	1990	2000	2003	2004	2005
United States	53.3	44.2	36.5	34.8	33.2	32.5
Mexico	11.2	15.8	16.9	18.2	18.7	19.4
China	11.5	14.2	16.1	16.6	16.9	17.9
Canada	9.3	9.7	12.8	14.2	14.4	14.6
Indonesia	8.3	7.2	6.8	5.2	5.1	4.7
Malaysia	1.5	3.1	3.3	3.6	3.7	3.6
Others	4.9	5.8	7.6	7.5	7.8	7.2

Crude Oil includes NGL and condensate

Primary Energy Supply

=66x48+231+0

=66x48+231+162

=66x48+0+0

=66x48+0+162

Primary Energy Supply

Indigenous Production of Natural Gas APEC 20

The chart displays the indigenous production of natural gas in Mtoe for APEC 20 countries from 1990 to 2005. The total production increases from approximately 641 Mtoe in 1990 to 868.7 Mtoe in 2005. The United States and Canada are the largest producers, followed by Mexico, China, and Australia. Other countries like Malaysia, Indonesia, and Australia also contribute significantly.

	1990	1995	2000	2003	2004	Mtoe 2005
United States	418.2	434.6	446.9	447.0	433.4	422.2
Canada	88.6	130.3	148.4	151.2	150.8	154.1
Indonesia	41.0	68.0	65.8	63.6	69.7	68.7
Malaysia	15.5	26.7	44.8	46.1	49.0	52.0
China	14.2	16.7	25.3	32.6	39.3	47.4
Mexico	22.8	24.1	31.3	34.0	35.5	36.9
Australia	17.7	25.3	28.4	31.2	32.0	35.2
Others	22.8	28.2	39.1	46.6	42.1	52.2
APEC 20	640.9	753.9	830.0	852.2	851.8	868.7

	1990	1995	2000	2003	2004	Share (%) 2005
United States	65.3	57.6	53.8	52.5	50.9	48.6
Canada	13.8	17.3	17.9	17.7	17.7	17.7
Indonesia	6.4	9.0	7.9	7.5	8.2	7.9
Malaysia	2.4	3.5	5.4	5.4	5.8	6.0
Mexico	3.6	3.2	3.8	4.0	4.2	4.2
China	2.2	2.2	3.1	3.8	4.6	5.5
Australia	2.8	3.4	3.4	3.7	3.8	4.1
Others	3.6	3.7	4.7	5.5	4.9	6.0

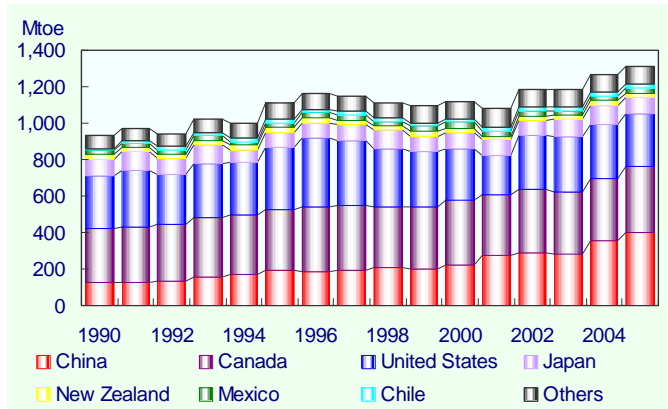
14

APEC ENERGY HANDBOOK 2005

=66x48+231+0

=66x48+231+162

Indigenous Production of Hydro Power APEC 20



	TWh					
	1990	1995	2000	2003	2004	2005
China	126.7	190.6	222.4	283.7	353.5	397.0
Canada	296.8	336.0	358.6	337.6	340.9	363.6
United States	289.0	337.9	280.0	305.7	297.9	290.4
Japan	91.0	82.8	87.0	94.0	103.2	87.1
New Zealand	23.3	27.3	24.4	23.7	27.2	23.5
Mexico	23.5	27.5	33.1	19.9	25.2	27.7
Chile	9.0	18.4	19.1	22.6	21.1	26.2
Others	71.3	87.3	94.1	97.8	94.6	96.2
APEC 20	930.6	1,107.8	1,118.7	1,079.0	1,184.9	1,263.6

	Share (%)					
	1990	1995	2000	2003	2004	2005
China	13.6	17.2	19.9	26.3	29.8	31.4
Canada	31.9	30.3	32.1	31.3	28.8	28.8
United States	31.0	30.5	25.0	28.3	25.1	23.0
Japan	9.8	7.5	7.8	8.7	8.7	6.9
New Zealand	2.5	2.5	2.2	2.2	2.3	1.9
Mexico	2.5	2.5	3.0	1.8	2.1	2.2
Chile	1.0	1.7	1.7	2.1	1.8	2.1
Others	7.7	7.9	8.4	9.1	8.0	7.6

Primary Energy Supply

=66x48+0+0

=66x48+0+162

Primary Energy Supply

Indigenous Production of Nuclear Power APEC 20

The chart displays the indigenous production of nuclear power in TWh for APEC 20 countries from 1990 to 2005. The y-axis represents TWh, ranging from 0 to 1,600. The x-axis represents the year. The bars are stacked by country: United States (blue), Japan (purple), Korea (yellow), Canada (pink), China (red), Chinese Taipei (grey), and Mexico (green). The total production increases from approximately 969 TWh in 1990 to 1,446.4 TWh in 2005.

	TWh					
	1990	1995	2000	2003	2004	2005
United States	611.6	713.8	797.7	787.8	813.3	810.7
Japan	195.8	287.9	319.8	220.2	285.9	293.0
Korea	52.9	67.0	109.0	129.7	130.7	146.8
Canada	73.0	97.8	72.8	74.9	90.4	92.0
China	-	12.8	16.7	43.3	50.5	53.1
Chinese Taipei	32.9	35.3	38.5	38.9	39.5	40.0
mexico	2.9	8.4	8.2	10.5	9.2	10.8
Others	-	-	-	-	-	-
APEC 20	969.0	1,223.1	1,362.7	1,305.3	1,419.5	1,446.4

	Share (%)					
	1990	1995	2000	2003	2004	2005
United States	63.1	58.4	58.5	60.4	57.3	56.0
Japan	20.2	23.5	23.5	16.9	20.1	20.3
Korea	5.5	5.5	8.0	9.9	9.2	10.1
Canada	7.5	8.0	5.3	5.7	6.4	6.4
China	-	1.0	1.2	3.3	3.6	3.7
Chinese Taipei	3.4	2.9	2.8	3.0	2.8	2.8
mexico	0.3	0.7	0.6	0.8	0.6	0.7
Others	-	-	-	-	-	-

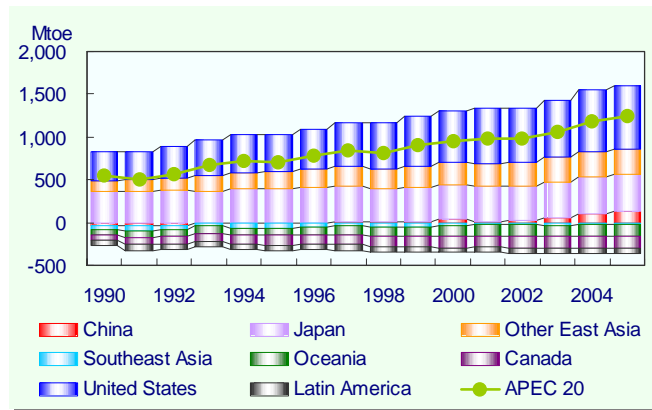
16

APEC ENERGY HANDBOOK 2005

=66x48+231+0

=66x48+231+162

Net Import by Region APEC 20



	Mtoe					
	1990	1995	2000	2003	2004	2005
Australia	-64.7	-89.4	-127.3	-138.8	-143.3	-147.9
Brunei Darussalam	-12.9	-14.6	-14.8	-18.0	-19.9	-19.3
Canada	-59.4	-119.9	-130.5	-127.2	-134.7	-134.0
Chile	7.0	10.7	16.2	16.4	19.4	21.3
China	-30.5	-8.9	32.4	49.4	104.1	138.1
Hong Kong, China	10.8	14.3	18.2	20.6	24.3	23.4
Indonesia	-65.9	-85.2	-82.4	-81.4	-72.7	-73.9
Japan	361.6	394.0	406.8	429.9	426.5	425.2
Korea	70.1	135.1	165.5	178.0	183.5	175.5
Malaysia	-25.4	-28.3	-27.4	-26.2	-29.2	-30.6
Mexico	-69.5	-69.1	-72.9	-82.8	-86.3	-81.2
New Zealand	3.1	3.0	3.4	4.1	5.3	4.9
Papua New Guinea	-3.7	-4.0	-2.7	-1.1	-0.9	-0.9
Peru	-0.6	1.8	3.3	3.2	3.8	2.8
Philippines	11.4	16.9	20.0	17.7	19.1	17.8
Singapore	22.9	31.9	40.3	44.4	43.2	55.4
Chinese Taipei	39.4	55.7	76.4	83.0	96.1	96.4
Thailand	18.2	32.6	34.6	43.8	49.3	48.7
United States	343.4	436.0	608.4	662.4	711.8	734.8
Viet Nam	-0.2	-4.7	-9.8	-11.6	-16.4	-18.2
APEC 20	555.3	708.0	957.9	1,065.8	1,182.9	1,238.4

Primary Energy Supply

=66x48+0+0

=66x48+0+162

Transformation

Refining of Petroleum Products by Fuel APEC 20

	Mtoe					
	1990	1995	2000	2003	2004	2005
Mogas	462.1	519.4	572.7	598.6	613.2	610.1
Naphtha	37.5	49.3	63.3	61.5	89.5	90.7
Jet Fuel	103.7	110.7	128.8	120.7	138.1	144.4
Kerosene	40.0	48.4	59.9	57.0	46.3	45.8
Gas/Diesel Oil	305.0	372.6	447.1	474.6	502.3	527.9
Fuel Oil	244.9	263.1	240.5	226.3	215.7	219.9
LPG	35.0	45.7	54.0	57.3	60.4	59.3
Others	188.6	199.0	239.5	254.7	259.9	256.3
Total	1,416.7	1,608.1	1,805.8	1,850.8	1,925.5	1,954.4

	Share (%)					
	1990	1995	2000	2003	2004	2005
Mogas	32.6	32.3	31.7	32.3	31.8	31.2
Naphtha	2.6	3.1	3.5	3.3	4.6	4.6
Jet Fuel	7.3	6.9	7.1	6.5	7.2	7.4
Kerosene	2.8	3.0	3.3	3.1	2.4	2.3
Gas/Diesel Oil	21.5	23.2	24.8	25.6	26.1	27.0
Fuel Oil	17.3	16.4	13.3	12.2	11.2	11.3
LPG	2.5	2.8	3.0	3.1	3.1	3.0
Others	13.3	12.4	13.3	13.8	13.5	13.1

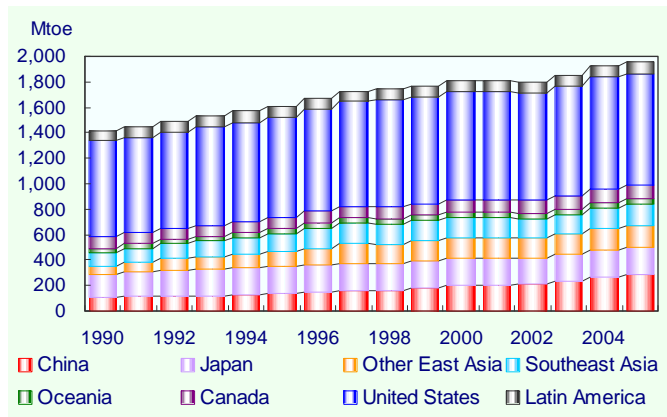
18

APEC ENERGY HANDBOOK 2005

=66x48+231+0

=66x48+231+162

Refining of Petroleum Products by Region APEC 20



	Mtoe					
	1990	1995	2000	2003	2004	2005
China	107.4	140.6	198.1	231.3	267.8	283.7
Japan	178.5	211.9	215.6	213.7	209.0	213.0
Other East Asia	62.3	117.4	164.8	160.3	171.4	178.3
Southeast Asia	108.2	140.0	152.4	150.3	158.5	165.8
Oceania	37.0	41.3	43.7	42.0	41.6	40.8
Canada	87.0	86.5	96.9	106.8	108.7	105.8
United States	755.2	784.7	850.7	859.6	878.6	876.6
Latin America	81.2	85.7	83.6	86.8	89.7	90.5
APEC 20	1,416.7	1,608.1	1,805.8	1,850.8	1,925.5	1,954.4

	Share (%)					
	1990	1995	2000	2003	2004	2005
China	7.6	8.7	11.0	12.5	13.9	14.5
Japan	12.6	13.2	11.9	11.5	10.9	10.9
Other East Asia	4.4	7.3	9.1	8.7	8.9	9.1
Southeast Asia	7.6	8.7	8.4	8.1	8.2	8.5
Oceania	2.6	2.6	2.4	2.3	2.2	2.1
Canada	6.1	5.4	5.4	5.8	5.6	5.4
United States	53.3	48.8	47.1	46.4	45.6	44.9
Latin America	5.7	5.3	4.6	4.7	4.7	4.6

Transformation

=66x48+0+0

=66x48+0+162

Transformation

Electricity Power Generation by Type APEC 20

The chart displays the growth of electricity power generation in APEC 20 from 1990 to 2005. Thermal power generation is the dominant source, increasing from approximately 3,800 TWh in 1990 to over 7,000 TWh in 2005. Hydro power also shows significant growth, rising from about 900 TWh in 1990 to over 1,300 TWh in 2005. Nuclear power generation is present but relatively small, starting around 1,000 TWh in 1990 and reaching about 1,400 TWh by 2005. Geothermal and other sources contribute very small amounts to the total generation.

	TWh					
	1990	1995	2000	2003	2004	2005
Thermal	3,835.0	4,691.0	5,838.4	6,603.0	6,887.4	7,236.3
Hydro	930.6	1,107.8	1,118.7	1,184.9	1,263.6	1,311.8
Nuclear	969.0	1,223.1	1,362.7	1,305.3	1,419.5	1,446.4
Geothermal	31.5	34.0	43.3	43.5	45.2	46.7
Others	111.7	94.1	108.8	123.6	164.2	166.3
Total	5,877.9	7,150.1	8,472.0	9,260.3	9,779.9	10,207.5

	Share (%)					
	1990	1995	2000	2003	2004	2005
Thermal	65.2	65.6	68.9	71.3	70.4	70.9
Hydro	15.8	15.5	13.2	12.8	12.9	12.9
Nuclear	16.5	17.1	16.1	14.1	14.5	14.2
Geothermal	0.5	0.5	0.5	0.5	0.5	0.5
Others	1.9	1.3	1.3	1.3	1.7	1.6

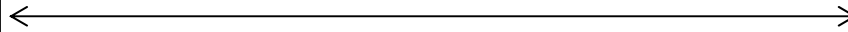
"Others" comprises power generated from renewable energy.

20

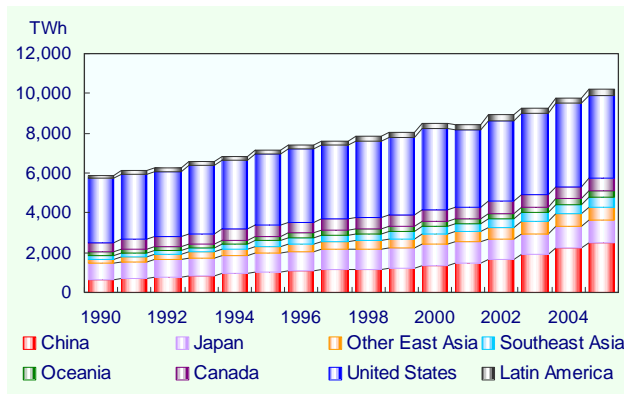
APEC ENERGY HANDBOOK 2005

=66x48+231+0

=66x48+231+162



Electricity Power Generation by Region APEC 20



	TWh					
	1990	1995	2000	2003	2004	2005
China	621.2	1,007.7	1,353.3	1,907.4	2,203.3	2,497.9
Japan	833.6	963.1	1,072.5	1,060.7	1,127.6	1,153.1
Other East Asia	221.3	334.7	481.2	589.7	623.7	655.2
Southeast Asia	156.3	289.9	393.2	469.0	466.4	494.6
Oceania	189.1	210.3	249.4	272.5	285.2	297.8
Canada	482.1	560.0	605.6	590.0	600.2	628.2
United States	3,218.6	3,582.1	4,052.5	4,081.5	4,174.5	4,167.7
Latin America	155.7	202.4	264.3	289.6	298.9	312.9
APEC 20	5,877.9	7,150.1	8,472.0	9,260.3	9,779.9	10,207.5

	Share (%)					
	1990	1995	2000	2003	2004	2005
China	10.6	14.1	16.0	20.6	22.5	24.5
Japan	14.2	13.5	12.7	11.5	11.5	11.3
Other East Asia	3.8	4.7	5.7	6.4	6.4	6.4
Southeast Asia	2.7	4.1	4.6	5.1	4.8	4.8
Oceania	3.2	2.9	2.9	2.9	2.9	2.9
Canada	8.2	7.8	7.1	6.4	6.1	6.2
United States	54.8	50.1	47.8	44.1	42.7	40.8
Latin America	2.6	2.8	3.1	3.1	3.1	3.1

Transformation

=66x48+0+0

=66x48+0+162

Transformation

Power Generation Capacity by Type APEC 20

The chart displays the growth of power generation capacity in the APEC 20 region from 1990 to 2005. The y-axis represents capacity in GW, ranging from 0 to 2,500. The x-axis shows years from 1990 to 2004, with data for 2005 also included. The capacity is broken down into four categories: Thermal (red), Hydro (blue), Nuclear (yellow), and Others (green). Thermal capacity shows the most significant growth, increasing from approximately 900 GW in 1990 to over 1,700 GW by 2005. Hydro capacity also shows steady growth, while Nuclear and Others represent smaller but increasing shares of the total capacity.

	1990	1995	2000	2003	2004	GW 2005
Thermal	902.3	1,063.2	1,258.2	1,569.2	1,641.5	1,719.4
Hydro	264.3	308.6	344.4	363.6	380.3	390.7
Nuclear	158.3	174.4	176.0	190.2	195.6	197.7
Others	8.4	8.2	10.5	16.3	20.4	25.0
Total	1,333.2	1,554.5	1,789.1	2,139.4	2,237.8	2,332.8

	1990	1995	2000	2003	2004	Share (%) 2005
Thermal	67.7	68.4	70.3	73.3	73.4	73.7
Hydro	19.8	19.9	19.2	17.0	17.0	16.7
Nuclear	11.9	11.2	9.8	8.9	8.7	8.5
Others	0.6	0.5	0.6	0.8	0.9	1.1

"Others" comprises power generated from renewable energy.

22

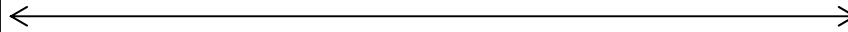
APEC ENERGY HANDBOOK 2005

=66x48+231+0

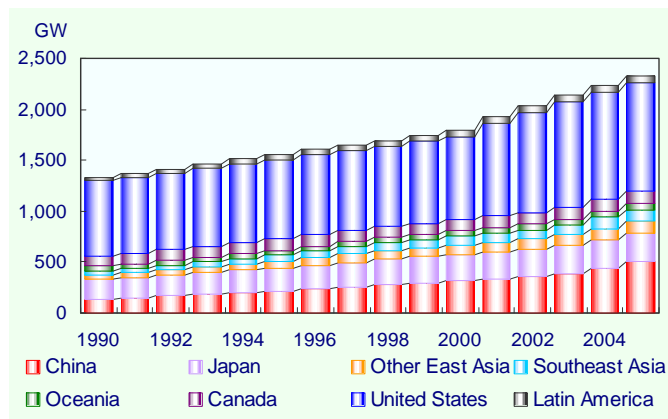
=66x48+231+162

=66x48+0+0

=66x48+0+162



Power Generation Capacity by Region APEC 20



	GW					
	1990	1995	2000	2003	2004	2005
China	137.9	217.2	319.3	391.4	440.7	508.4
Japan	194.7	227.0	258.8	268.3	272.7	274.6
Other East Asia	46.2	64.2	92.6	107.1	116.2	121.5
Southeast Asia	37.0	59.8	82.1	96.9	109.2	110.2
Oceania	43.2	48.4	55.3	59.1	60.2	60.0
Canada	104.1	115.5	111.3	118.3	120.5	121.5
United States	733.6	776.3	812.6	1,031.7	1,049.6	1,067.0
Latin America	36.5	46.0	57.0	66.6	68.7	69.6
APEC 19	1,333.2	1,554.5	1,789.1	2,139.4	2,237.8	2,332.8

	Share (%)					
	1990	1995	2000	2003	2004	2005
China	10.3	14.0	17.8	18.3	19.7	21.8
Japan	14.6	14.6	14.5	12.5	12.2	11.8
Other East Asia	3.5	4.1	5.2	5.0	5.2	5.2
Southeast Asia	2.8	3.9	4.6	4.5	4.9	4.7
Oceania	3.2	3.1	3.1	2.8	2.7	2.6
Canada	7.8	7.4	6.2	5.5	5.4	5.2
United States	55.0	49.9	45.4	48.2	46.9	45.7
Latin America	2.7	3.0	3.2	3.1	3.1	3.0

Transformation

=66x48+231+0

=66x48+231+162

=66x48+0+0

=66x48+0+162

Final Energy Consumption

Total Final Energy Consumption by Region APEC 20

	Mtoe					
	1990	1995	2000	2003	2004	2005
China	489.9	660.7	634.7	796.6	834.0	904.6
Japan	305.1	339.9	360.0	360.8	355.9	354.7
Other East Asia	101.6	155.9	193.1	215.6	218.8	220.5
Southeast Asia	89.5	139.1	173.8	197.6	223.3	222.8
Oceania	68.0	76.1	86.0	86.3	88.5	90.4
Canada	160.0	174.6	190.3	197.2	202.0	200.9
United States	1,305.6	1,393.2	1,566.0	1,571.1	1,600.1	1,601.2
Latin America	105.6	117.2	129.5	128.6	136.0	138.9
APEC 20	2,621.1	3,518.6	3,756.3	3,972.3	4,083.8	4,154.1

	Share (%)					
	1990	1995	2000	2003	2004	2005
China	18.7	18.8	16.9	20.1	20.4	21.8
Japan	11.6	9.7	9.6	9.1	8.7	8.5
Other East Asia	3.9	4.4	5.1	5.4	5.4	5.3
Southeast Asia	3.4	4.0	4.6	5.0	5.5	5.4
Oceania	2.6	2.2	2.3	2.2	2.2	2.2
Canada	6.1	5.0	5.1	5.0	4.9	4.8
United States	49.8	39.6	41.7	39.6	39.2	38.5
Latin America	4.0	3.3	3.4	3.2	3.3	3.3

24

APEC ENERGY HANDBOOK 2005

=66x48+231+0

=66x48+231+162

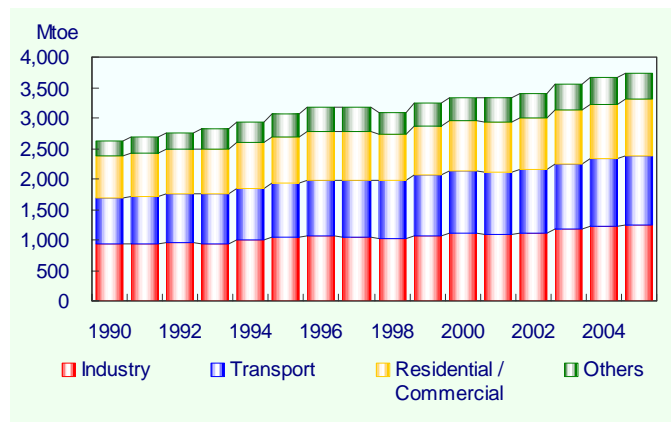
=66x48+0+0

=66x48+0+162

114



Total Final Energy Consumption by Sector APEC 20



	Mtoe					
	1990	1995	2000	2003	2004	2005
Industry	923.7	1,038.9	1,112.9	1,180.1	1,222.5	1,239.0
Transport	770.0	884.8	1,011.5	1,073.6	1,110.5	1,138.9
Residential / Commercial	691.8	772.1	829.6	885.3	896.8	925.5
Others	239.9	360.8	379.4	414.9	428.8	430.7
Total	2,625.3	3,056.7	3,333.4	3,553.9	3,658.6	3,734.1

	Share (%)					
	1990	1995	2000	2003	2004	2005
Industry	35.2	34.0	33.4	33.2	33.4	33.2
Transport	29.3	28.9	30.3	30.2	30.4	30.5
Residential / Commercial	26.4	25.3	24.9	24.9	24.5	24.8
Others	9.1	11.8	11.4	11.7	11.7	11.5

Final Energy Consumption

=66x48+231+0

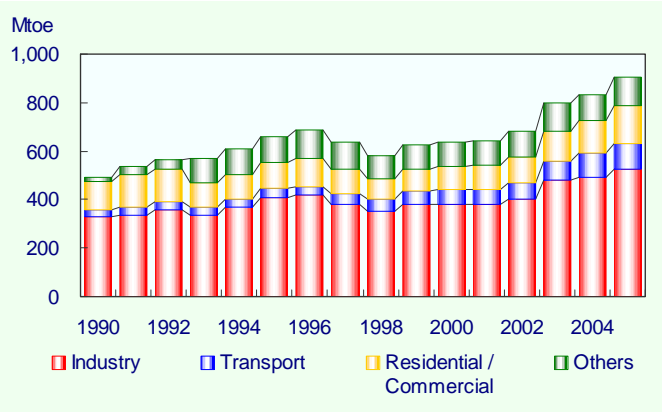
=66x48+231+162

=66x48+0+0

=66x48+0+162

Final Energy Consumption

Total Final Energy Consumption by Sector China



	Mtoe					
	1990	1995	2000	2003	2004	2005
Industry	329.8	410.0	379.3	482.0	491.8	525.9
Transport	28.8	36.4	60.1	78.1	98.4	107.9
Residential / Commercial	118.4	107.0	96.0	121.3	137.7	153.4
Others	13.0	107.3	99.3	115.2	106.1	117.4
Total	489.9	660.7	634.7	796.6	834.0	904.6

	Share (%)					
	1990	1995	2000	2003	2004	2005
Industry	67.3	62.1	59.8	60.5	59.0	58.1
Transport	5.9	5.5	9.5	9.8	11.8	11.9
Residential / Commercial	24.2	16.2	15.1	15.2	16.5	17.0
Others	2.6	16.2	15.6	14.5	12.7	13.0

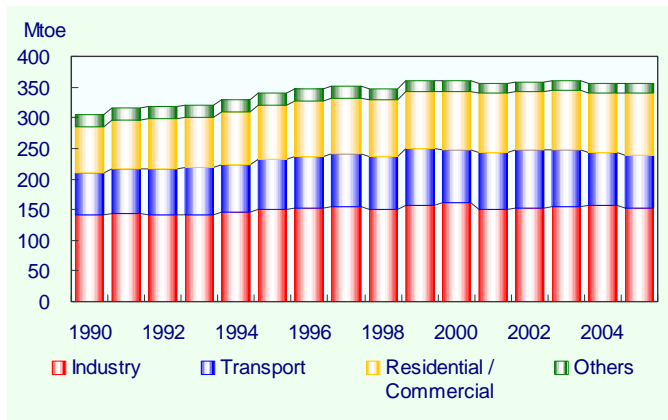
=66x48+231+0

=66x48+231+162

=66x48+0+0

=66x48+0+162

Total Final Energy Consumption by Sector Japan



	Mtoe					
	1990	1995	2000	2003	2004	2005
Industry	140.8	150.4	160.7	155.6	156.9	153.0
Transport	70.1	81.3	86.9	92.9	87.1	86.8
Residential / Commercial	74.7	89.2	95.5	96.8	97.4	100.9
Others	19.6	19.0	16.8	15.4	14.5	14.1
Total	305.1	339.9	360.0	360.8	355.9	354.7

	Share (%)					
	1990	1995	2000	2003	2004	2005
Industry	46.1	44.2	44.7	43.1	44.1	43.1
Transport	23.0	23.9	24.1	25.7	24.5	24.5
Residential / Commercial	24.5	26.2	26.5	26.8	27.4	28.5
Others	6.4	5.6	4.7	4.3	4.1	4.0

Final Energy Consumption

=66x48+231+0

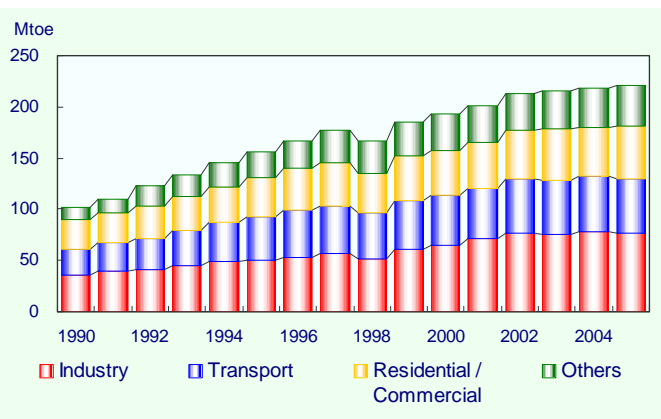
=66x48+231+162

=66x48+0+0

=66x48+0+162

Final Energy Consumption

Total Final Energy Consumption by Sector Other East Asia



	1990	1995	2000	2003	2004	2005
Industry	36.0	50.0	64.3	75.8	77.6	77.1
Transport	25.3	42.8	49.0	53.1	54.1	53.1
Residential / Commercial	28.6	37.7	44.3	49.8	47.8	50.8
Others	11.6	25.4	35.5	36.9	39.4	39.4
Total	101.6	155.9	193.1	215.6	218.8	220.5

	1990	1995	2000	2003	2004	2005
Industry	35.5	32.1	33.3	35.2	35.5	35.0
Transport	24.9	27.4	25.4	24.6	24.7	24.1
Residential / Commercial	28.2	24.2	22.9	23.1	21.8	23.1
Others	11.4	16.3	18.4	17.1	18.0	17.9

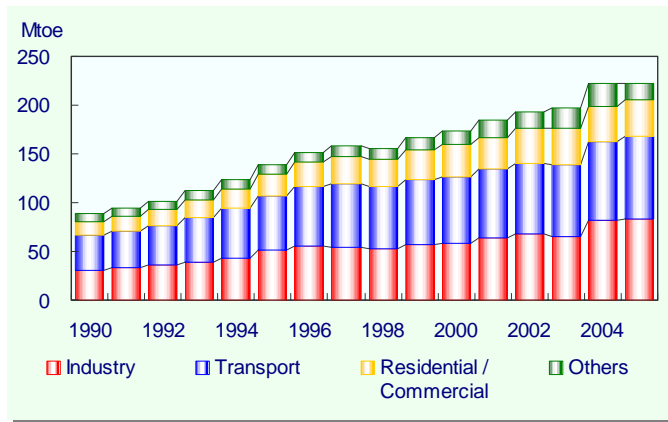
=66x48+231+0

=66x48+231+162

=66x48+0+0

=66x48+0+162

Total Final Energy Consumption by Sector Southeast Asia



	Mtoe					
	1990	1995	2000	2003	2004	2005
Industry	30.4	51.0	58.5	64.6	82.3	83.9
Transport	35.6	55.5	68.5	74.9	79.5	84.7
Residential / Commercial	15.1	22.2	33.2	37.6	36.7	37.5
Others	8.0	9.7	13.0	19.8	24.0	16.0
Total	89.1	138.5	173.2	196.9	222.5	222.1

	Share (%)					
	1990	1995	2000	2003	2004	2005
Industry	34.1	36.8	33.8	32.8	37.0	37.8
Transport	40.0	40.1	39.5	38.0	35.7	38.1
Residential / Commercial	16.9	16.1	19.2	19.1	16.5	16.9
Others	9.0	7.0	7.5	10.1	10.8	7.2

Final Energy Consumption

=66x48+231+0

=66x48+231+162

=66x48+0+0

=66x48+0+162

Final Energy Consumption

Total Final Energy Consumption by Sector Oceania

The chart shows a steady increase in total final energy consumption in Oceania from 1990 to 2005. The total consumption grows from approximately 68 Mtoe in 1990 to 90.4 Mtoe in 2005. The transport sector (blue) shows a significant increase in its share over the period, while the industry sector (red) shows a slight decline. Residential and commercial sectors (yellow) and others (green) also contribute to the overall growth.

	Mtoe					
	1990	1995	2000	2003	2004	2005
Industry	22.1	24.2	27.2	25.2	26.7	26.9
Transport	26.3	29.6	33.4	35.1	35.4	36.3
Residential / Commercial	12.9	14.6	16.7	17.9	18.2	18.5
Others	6.6	7.7	8.8	8.2	8.2	8.8
Total	68.0	76.1	86.0	86.3	88.5	90.4

	Share (%)					
	1990	1995	2000	2003	2004	2005
Industry	32.5	31.8	31.6	29.2	30.2	29.7
Transport	38.7	38.9	38.8	40.6	40.0	40.1
Residential / Commercial	19.0	19.2	19.4	20.8	20.5	20.5
Others	9.8	10.1	10.2	9.4	9.3	9.7

30

APEC ENERGY HANDBOOK 2005

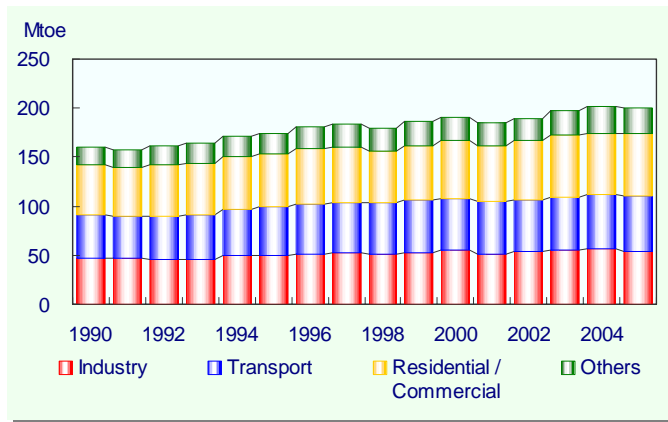
=66x48+231+0

=66x48+231+162

=66x48+0+0

=66x48+0+162

Total Final Energy Consumption by Sector Canada



	Mtoe					
	1990	1995	2000	2003	2004	2005
Industry	47.3	50.1	54.7	55.3	56.3	54.1
Transport	44.2	48.8	53.5	54.0	55.7	56.8
Residential / Commercial	50.7	54.0	58.4	62.7	62.6	62.6
Others	17.8	21.6	23.7	25.2	27.4	27.4
Total	160.0	174.6	190.3	197.2	202.0	200.9

	Share (%)					
	1990	1995	2000	2003	2004	2005
Industry	29.6	28.7	28.8	28.0	27.9	26.9
Transport	27.6	28.0	28.1	27.4	27.6	28.3
Residential / Commercial	31.7	31.0	30.7	31.8	31.0	31.1
Others	11.1	12.4	12.5	12.8	13.6	13.6

Final Energy Consumption

=66x48+231+0

=66x48+231+162

=66x48+0+0

=66x48+0+162

Final Energy Consumption

Total Final Energy Consumption by Sector United States of America

The chart illustrates the growth of total final energy consumption in the US from 1990 to 2004. The total consumption increases from approximately 1,306 Mtoe in 1990 to 1,601 Mtoe in 2004. The Transport sector shows a significant increase in its share over the period, while the Industry sector's share decreases.

	Mtoe					
	1990	1995	2000	2003	2004	2005
Industry	284.3	269.7	329.1	285.6	292.3	279.8
Transport	502.1	546.5	611.7	633.3	643.6	653.6
Residential / Commercial	369.7	421.6	457.7	470.9	467.7	472.6
Others	149.5	155.4	167.5	181.3	196.5	195.2
Total	1,305.6	1,393.2	1,566.0	1,571.1	1,600.1	1,601.2

	Share (%)					
	1990	1995	2000	2003	2004	2005
Industry	21.8	19.4	21.0	18.2	18.3	17.5
Transport	38.5	39.2	39.1	40.3	40.2	40.8
Residential / Commercial	28.3	30.3	29.2	30.0	29.2	29.5
Others	11.5	11.2	10.7	11.5	12.3	12.2

32

APEC ENERGY HANDBOOK 2005

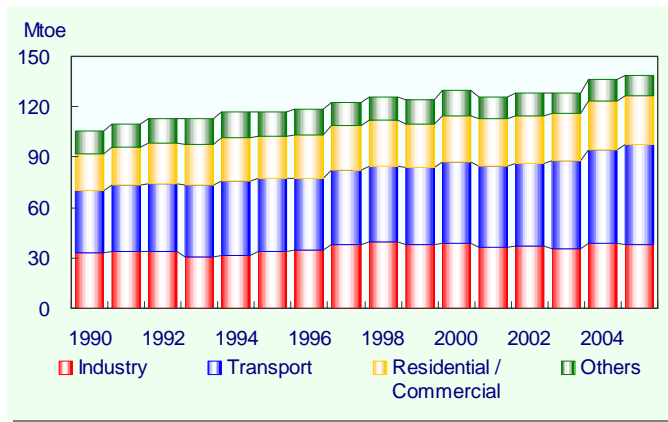
=66x48+231+0

=66x48+231+162

=66x48+0+0

=66x48+0+162

Total Final Energy Consumption by Sector Latin America



	1990	1995	2000	2003	2004	2005
Industry	32.9	33.5	38.9	35.9	38.5	38.2
Transport	37.3	43.6	48.1	52.0	56.2	59.3
Residential / Commercial	21.7	25.6	27.7	28.0	28.7	28.9
Others	13.7	14.6	14.8	12.8	12.6	12.5
Total	105.6	117.2	129.5	128.6	136.0	138.9

	1990	1995	2000	2003	2004	2005
Industry	31.1	28.6	30.0	27.9	28.3	27.5
Transport	35.3	37.2	37.2	40.4	41.4	42.7
Residential / Commercial	20.6	21.8	21.4	21.7	21.1	20.8
Others	13.0	12.5	11.4	10.0	9.3	9.0

Final Energy Consumption

=66x48+231+0

=66x48+231+162

=66x48+0+0

=66x48+0+162

Final Energy Consumption

Coal++ Demand by Sector APEC 20

The chart shows a general upward trend in coal demand until the mid-1990s, followed by a period of fluctuation and a slight decline in the late 1990s and early 2000s. The Industry sector consistently accounts for the largest share of demand, followed by Residential/Commercial and Others.

	Mtoe					
	1990	1995	2000	2003	2004	2005
Industry	330.0	393.3	317.4	370.7	352.7	366.8
Transport	11.2	7.1	5.6	6.0	5.5	5.6
Residential / Commercial	116.1	88.1	51.6	61.1	66.0	72.6
Others	5.9	36.1	28.1	33.9	16.6	16.3
Total	463.2	524.6	402.7	471.7	440.8	461.2

	Share (%)					
	1990	1995	2000	2003	2004	2005
Industry	71.2	75.0	78.8	78.6	80.0	79.5
Transport	2.4	1.4	1.4	1.3	1.3	1.2
Residential / Commercial	25.1	16.8	12.8	13.0	15.0	15.7
Others	1.3	6.9	7.0	7.2	3.8	3.5

34

APEC ENERGY HANDBOOK 2005

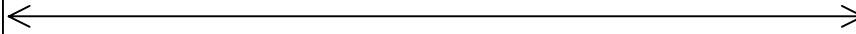
=66x48+231+0

=66x48+231+162

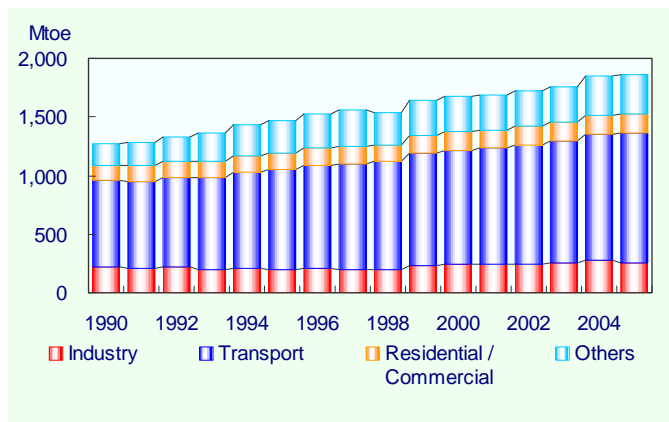
=66x48+0+0

=66x48+0+162

114



Oil Demand by Sector APEC 20



	Mtoe					
	1990	1995	2000	2003	2004	2005
Industry	217.9	197.2	238.5	250.6	272.4	256.9
Transport	736.7	850.6	979.1	1,041.3	1,077.7	1,105.1
Residential / Commercial	127.5	143.0	159.5	162.0	158.9	159.6
Others	187.7	275.6	293.9	305.5	343.9	341.5
Total	1,269.8	1,466.4	1,671.0	1,759.4	1,852.9	1,863.1

	Share (%)					
	1990	1995	2000	2003	2004	2005
Industry	17.2	13.4	14.3	14.2	14.7	13.8
Transport	58.0	58.0	58.6	59.2	58.2	59.3
Residential / Commercial	10.0	9.8	9.5	9.2	8.6	8.6
Others	14.8	18.8	17.6	17.4	18.6	18.3

Final Energy Consumption

=66x48+231+0

=66x48+231+162

=66x48+0+0

=66x48+0+162

Final Energy Consumption

Gas++ Demand by Sector APEC 20

The chart displays the demand for gas in the APEC 20 region from 1990 to 2004. The total demand grows from approximately 407 Mtoe in 1990 to 523 Mtoe in 2004. The Residential/Commercial sector is the largest consumer, followed by Industry, Others, and Transport.

	Mtoe					
	1990	1995	2000	2003	2004	2005
Industry	163.0	181.7	211.2	197.2	220.3	211.8
Transport	18.4	22.4	21.0	19.4	19.6	20.9
Residential / Commercial	201.1	230.9	247.7	258.2	253.5	255.1
Others	24.6	32.8	37.1	40.7	33.3	35.7
Total	407.2	467.8	517.0	515.5	526.7	523.5

	Share (%)					
	1990	1995	2000	2003	2004	2005
Industry	40.0	38.8	40.9	38.3	41.8	40.5
Transport	4.5	4.8	4.1	3.8	3.7	4.0
Residential / Commercial	49.4	49.4	47.9	50.1	48.1	48.7
Others	6.0	7.0	7.2	7.9	6.3	6.8

36

APEC ENERGY HANDBOOK 2005

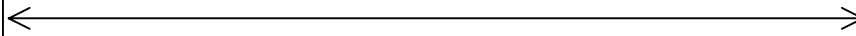
=66x48+231+0

=66x48+231+162

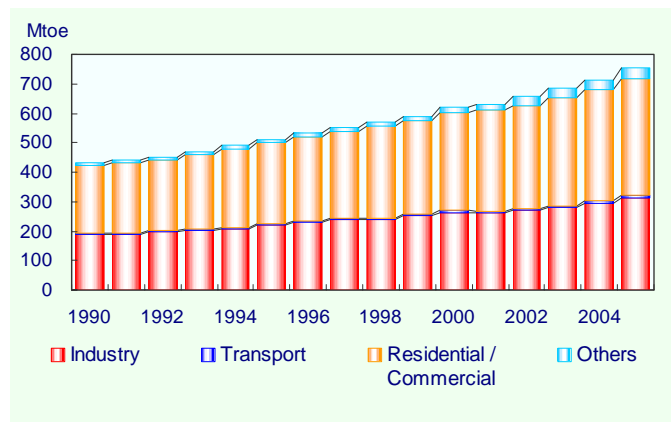
=66x48+0+0

=66x48+0+162

114



Electricity Demand by Sector APEC 20



Final Energy Consumption

	Mtoe					
	1980	1990	2000	2003	2004	2005
Industry	141.5	188.1	264.1	279.8	295.3	314.8
Transport	2.2	3.7	5.8	6.9	7.6	7.4
Residential / Commercial	153.9	231.8	334.6	364.6	377.7	394.5
Others	4.0	7.3	15.0	33.0	34.0	35.9
Total	301.6	430.9	619.4	684.3	714.7	752.6

	Share (%)					
	1980	1990	2000	2003	2004	2005
Industry	46.9	43.6	42.6	40.9	41.3	41.8
Transport	0.7	0.9	0.9	1.0	1.1	1.0
Residential / Commercial	51.0	53.8	54.0	53.3	52.8	52.4
Others	1.3	1.7	2.4	4.8	4.8	4.8

=66x48+231+0

=66x48+231+162

APEC 21, 2005

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	2,201,980	-	1,483,125	5,952
2 Import	282,772	6,015	1,341,631	405,940
3 Export	-318,065	-16,046	-547,863	-332,572
4 International Marine Bunkers	-	-	-	-81,549
5 Stock Change	-6,150	-10,668	-4,677	2,789
6 Total Primary Energy Supply	2,160,537	-20,699	2,272,215	559
7 Public Electricity	-1,214,700	-81,426	-5,916	-89,076
8 Autoproducers of Electricity	-97,494	-14,257	-982	-48,012
9 Gas Processing	-9,262	-29,899	-	-2,586
10 Petroleum Refineries	-	-	-2,168,845	2,161,871
11 Coal Transformation	-366,494	252,456	-	-646
12 Other Transformation	-	-	-1	-427
13 Loss & Own Use	-69,369	-8,064	-10,376	-110,592
14 Discrepancy	-19,139	-3,093	-14,814	-43,403
15 Total Final Energy Consumption	384,079	95,019	6,778	1,958,646
16 Industry Sector	297,471	81,832	6,720	521,132
17 Transport Sector	5,555	7	19	1,166,376
18 Other Sector	81,053	13,179	38	271,138
18.1 Agriculture	12,335	43	7	59,902
18.2 Residential & Commercial	64,765	13,044	31	171,738
18.3 Other	3,954	92	-	39,498

Australia, 2005

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	204,667	-	24,139	-
2 Import	-	-	21,377	9,651
3 Export	-150,312	-1	-14,828	-1,503
4 International Marine Bunkers	-	-	-	-832
5 Stock Change	435	-484	-299	177
6 Total Primary Energy Supply	54,790	-485	30,389	7,492
7 Public Electricity	-48,354	-642	-	-423
8 Autoproducers of Electricity	-	-19	-	-147
9 Gas Processing	-	-	-	-
10 Petroleum Refineries	-	-	-34,081	34,307
11 Coal Transformation	-3,843	2,376	-	-20
12 Other Transformation	-	-	-	-
13 Loss & Own Use	-	-313	-27	-2,487
14 Discrepancy	-38	0	4,510	-6,937
15 Total Final Energy Consumption	2,555	918	-	39,182
16 Industry Sector	2,432	842	-	6,622
17 Transport Sector	92	-	-	29,583
18 Other Sector	31	76	-	2,977
18.1 Agriculture	-	-	-	2,116
18.2 Residential & Commercial	31	76	-	861
18.3 Other	-	-	-	-



Unit: ktoe

Natural Gas, LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
1,384,451	127,815	415,911	45,979	212,762	-	-	5,877,975
248,014	-	-	-	311	8,210	-	2,292,894
-355,217	-	-	-	-11	-8,752	-	-1,578,526
-	-	-	-	-	-	-	-81,549
3,451	-	-	-	-70	-	-	-15,326
1,280,699	127,815	415,911	45,979	212,992	-541	-	6,495,467
-406,338	-123,985	-415,911	-39,191	-15,162	895,290	95,120	-1,401,296
-121,310	-3,830	-	-3,414	-27,562	64,418	114,531	-137,912
18,494	-	-	-	-	-	-	-23,253
-	-	-	-	-	-	-	-6,974
-131	-	-	-	-	-	-	-114,815
-4,436	-	-	-0	-14,192	-	-	-19,057
-114,173	-	-	-	-498	-153,352	-35,595	-502,019
-1,314	-0	-	0	2,689	2,666	-1,517	-77,925
651,491	-	-	3,374	158,266	808,481	172,540	4,238,673
295,487	-	-	245	70,338	343,145	82,234	1,698,605
54,747	-	-	-	-	14,526	-	1,241,230
301,257	-	-	3,129	87,928	450,810	90,305	1,298,838
1,000	-	-	93	472	11,391	3,254	88,498
296,799	-	-	3,036	87,402	413,424	86,051	1,136,288
3,458	-	-	-	55	25,994	1,000	74,052

Energy Balances

Unit: ktoe

Natural Gas, LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
35,226	1,366	-	139	5,235	-	-	270,773
-	-	-	-	-	-	-	31,028
-12,260	-	-	-	-	-	-	-178,903
-	-	-	-	-	-	-	-832
-	-	-	-	-	-	-	-172
22,966	1,366	-	139	5,235	-	-	121,894
-4,991	-1,343	-	-77	-324	20,544	-	-35,609
-2,873	-24	-	-	-868	1,052	-	-2,878
-282	-	-	-	-	-	-	-282
-	-	-	-	-	-	-	225
-131	-	-	-	-	-	-	-1,618
-	-	-	-	-11	-	-	-11
-2,923	-	-	-	-	-3,924	-	-9,673
214	-0	-	-0	0	87	-	-2,165
11,981	-	-	63	4,032	17,759	-	76,489
7,699	-	-	-	2,585	7,939	-	28,119
353	-	-	-	-	214	-	30,243
3,928	-	-	63	1,447	9,606	-	18,128
2	-	-	-	-	152	-	2,271
3,927	-	-	63	1,447	9,453	-	15,857
-	-	-	-	-	-	-	-

=66x48+0+0

=66x48+0+162

Energy Balances

Brunei Darussalam, 2005

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	-	-	10,487	-
2 Import	-	-	-	43
3 Export	-	-	-9,806	-
4 International Marine Bunkers	-	-	-	-
5 Stock Change	-	-	15	-4
6 Total Primary Energy Supply	-	-	697	38
7 Public Electricity	-	-	-	-
8 Autoproducers of Electricity	-	-	-	-8
9 Gas Processing	-	-	-	-
10 Petroleum Refineries	-	-	-706	639
11 Coal Transformation	-	-	-	-
12 Other Transformation	-	-	-	-
13 Loss & Own Use	-	-	-	-170
14 Discrepancy	-	-	9	-0
15 Total Final Energy Consumption	-	-	-	499
16 Industry Sector	-	-	-	47
17 Transport Sector	-	-	-	418
18 Other Sector	-	-	-	34
18.1 Agriculture	-	-	-	0
18.2 Residential & Commercial	-	-	-	17
18.3 Other	-	-	-	17

Canada, 2005

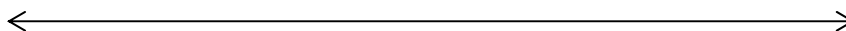
	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	31,767	-	148,168	-
2 Import	11,617	58	46,636	13,989
3 Export	-16,826	-101	-85,862	-21,914
4 International Marine Bunkers	-	-	-	-589
5 Stock Change	1,380	80	-2,375	46
6 Total Primary Energy Supply	27,938	37	106,567	-8,469
7 Public Electricity	-23,533	-	-	-3,886
8 Autoproducers of Electricity	-	-125	-	-
9 Gas Processing	-	-	-	-
10 Petroleum Refineries	-	-	-98,808	105,750
11 Coal Transformation	-2,901	1,269	-	-
12 Other Transformation	-	-	-	-
13 Loss & Own Use	-135	-	-	-9,482
14 Discrepancy	91	250	1,199	-9,355
15 Total Final Energy Consumption	1,461	1,431	-	91,884
16 Industry Sector	1,436	1,431	-	23,424
17 Transport Sector	-	-	-	52,382
18 Other Sector	25	-	-	16,079
18.1 Agriculture	-	-	-	2,332
18.2 Residential & Commercial	25	-	-	13,747
18.3 Other	-	-	-	-

=66x48+231+0

=66x48+231+162

=66x48+0+0

=66x48+0+162



Unit: ktoe

Natural Gas, LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
11,143	-	-	-	-	-	-	21,630
-	-	-	-	-	-	-	43
-9,556	-	-	-	-	-	-	-19,362
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	11
1,587	-	-	-	-	-	-	2,322
-970	-	-	-	-	251	-	-719
-108	-	-	-	-	30	-	-86
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-66
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-496	-	-	-	-	-17	-	-683
-0	-	-	-	-	-	-	9
13	-	-	-	-	264	-	776
-	-	-	-	-	49	-	96
-	-	-	-	-	-	-	418
13	-	-	-	-	215	-	263
-	-	-	-	-	-	-	0
13	-	-	-	-	215	-	246
-	-	-	-	-	-	-	17

Energy Balances

Unit: ktoe

Natural Gas, LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
154,108	31,272	23,986	128	12,602	-	-	402,031
7,833	-	-	-	51	1,692	-	81,875
-87,402	-	-	-	-9	-3,743	-	-215,858
-	-	-	-	-	-	-	-589
6,116	-	-	-	-	-	-	5,247
80,655	31,272	23,986	128	12,643	-2,051	-	272,706
-6,563	-28,566	-23,986	-128	-9	49,789	825	-36,056
-1,443	-2,705	-	-	-2,096	4,236	-	-2,133
-1,170	-	-	-	-	-	-	-1,170
-	-	-	-	-	-	-	6,943
-	-	-	-	-	-	-	-1,632
-567	-	-	-	-170	-	-	-738
-14,921	-	-	-	-	-8,347	-0	-32,885
-4,963	-	-	-	-0	300	0	-12,477
51,029	-	-	-	10,369	43,926	825	200,926
21,563	-	-	-	8,329	18,172	811	75,155
4,299	-	-	-	-	366	-	57,047
25,177	-	-	-	2,040	25,388	15	68,725
425	-	-	-	-	881	1	3,640
24,752	-	-	-	2,040	24,507	13	65,085
-	-	-	-	-	-	-	-

=66x48+231+0

=66x48+231+162

Chile, 2005

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	354	-	175	-
2 Import	2,651	-	11,097	3,935
3 Export	-	-28	-	-1,836
4 International Marine Bunkers	-	-	-	-
5 Stock Change	-79	49	27	-461
6 Total Primary Energy Supply	2,926	21	11,299	1,639
7 Public Electricity	-1,957	-	-	-820
8 Autoproducers of Electricity	-8	-	-	-117
9 Gas Processing	-	-21	-	-
10 Petroleum Refineries	-	-	-11,037	11,186
11 Coal Transformation	-506	453	-	-
12 Other Transformation	-	-	-	-
13 Loss & Own Use	-0	-	-	-452
14 Discrepancy	-0	-4	-263	-0
15 Total Final Energy Consumption	455	449	-	11,436
16 Industry Sector	439	449	-	2,061
17 Transport Sector	0	-	-	8,096
18 Other Sector	16	-	-	1,279
18.1 Agriculture	-	-	-	-
18.2 Residential & Commercial	4	-	-	1,173
18.3 Other	13	-	-	105

China, 2005

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	1,143,269	-	181,353	-
2 Import	15,683	4	126,817	41,166
3 Export	-9,828	-8,700	-8,067	-15,679
4 International Marine Bunkers	-	-	-	-615
5 Stock Change	-7,786	-10,542	-788	198
6 Total Primary Energy Supply	1,141,337	-19,238	299,315	25,071
7 Public Electricity	-522,570	-228	-	-
8 Autoproducers of Electricity	-50,730	-1,904	-216	-19,899
9 Gas Processing	-7,374	-29,826	-	-144
10 Petroleum Refineries	-	-	-290,405	283,696
11 Coal Transformation	-183,984	100,646	-	-
12 Other Transformation	-	-	-	-
13 Loss & Own Use	-68,541	-2,798	-6,580	-6,514
14 Discrepancy	-8,297	890	1,547	-1,376
15 Total Final Energy Consumption	299,841	47,544	3,661	280,834
16 Industry Sector	222,612	36,408	3,661	110,180
17 Transport Sector	5,463	7	-	97,855
18 Other Sector	71,766	11,128	-	72,799
18.1 Agriculture	11,745	43	-	21,175
18.2 Residential & Commercial	56,136	10,993	-	30,270
18.3 Other	3,885	92	-	21,354

=66x48+0+0

=66x48+0+162



Unit: ktoe

Natural Gas, LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
1,929	2,254	-	-	4,599	-	-	9,310
5,280	-	-	-	-	185	-	23,149
-	-	-	-	-	-	-	-1,864
-	-	-	-	-	-	-	-
-160	-	-	-	-	-	-	-624
7,048	2,254	-	-	4,599	185	-	29,971
-2,335	-2,206	-	-	-20	4,209	-	-3,129
-377	-48	-	-	-551	305	-	-796
-2,245	-	-	-	-	-	-	-2,266
-	-	-	-	-	-	-	149
-	-	-	-	-	-	-	-53
-	-	-	-	-	-	-	-
-748	-	-	-	-	-544	-	-1,745
-66	-	-	-	-0	-	-	-333
1,277	-	-	-	4,028	4,154	-	21,798
758	-	-	-	1,121	2,800	-	7,628
31	-	-	-	-	22	-	8,149
488	-	-	-	2,907	1,332	-	6,022
-	-	-	-	-	-	-	-
442	-	-	-	2,907	1,322	-	5,847
46	-	-	-	-	11	-	175

Energy Balances

Unit: ktoe

Natural Gas, LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
47,429	34,143	13,835	-	5,996	-	-	1,426,025
-	-	-	-	-	292	-	183,963
-2,764	-	-	-	-	-815	-	-45,853
-	-	-	-	-	-	-	-615
-	-	-	-	-	-	-	-18,918
44,665	34,143	13,835	-	5,996	-523	-	1,544,602
-484	-34,143	-13,835	-	-2,087	200,743	30,730	-341,874
-12,304	-	-	-	-	14,080	24,089	-46,884
33,398	-	-	-	-	-	-	-3,946
-	-	-	-	-	-	-	-6,709
-	-	-	-	-	-	-	-83,338
-396	-	-	-	-	-	-	-396
-7,422	-	-	-	-249	-44,389	-10,312	-146,803
-1,282	-	-	-	-3	-105	-1,428	-10,052
56,176	-	-	-	3,658	169,807	43,080	904,599
41,383	-	-	-	3,658	116,274	29,178	563,353
863	-	-	-	-	3,701	-	107,889
13,930	-	-	-	-	49,831	13,901	233,356
-	-	-	-	-	7,181	18	40,163
12,328	-	-	-	-	30,763	12,894	153,385
1,601	-	-	-	-	11,887	989	39,808

=66x48+231+0

=66x48+231+162

=66x48+0+0

=66x48+0+162

Hong Kong, China, 2005

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	-	-	-	-
2 Import	6,826	-	-	15,405
3 Export	-0	-	-	-1,377
4 International Marine Bunkers	-	-	-	-5,718
5 Stock Change	44	-	-	-91
6 Total Primary Energy Supply	6,870	-	-	8,219
7 Public Electricity	-6,869	-	-	-38
8 Autoproducers of Electricity	-	-	-	-
9 Gas Processing	-	-	-	-718
10 Petroleum Refineries	-	-	-	-
11 Coal Transformation	-	-	-	-
12 Other Transformation	-	-	-	-
13 Loss & Own Use	-	-	-	-
14 Discrepancy	-	-	-	-1,131
15 Total Final Energy Consumption	1	-	-	6,332
16 Industry Sector	1	-	-	204
17 Transport Sector	-	-	-	5,878
18 Other Sector	-	-	-	250
18.1 Agriculture	-	-	-	-
18.2 Residential & Commercial	-	-	-	122
18.3 Other	-	-	-	128

Indonesia, 2005

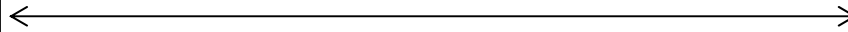
	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	82,754	-	48,137	-
2 Import	53	-	20,471	21,235
3 Export	-57,745	-	-19,567	-7,363
4 International Marine Bunkers	-	-	-	-
5 Stock Change	-1,320	-	-	-
6 Total Primary Energy Supply	23,742	-	49,041	13,873
7 Public Electricity	-9,189	-	-	-8,646
8 Autoproducers of Electricity	-4,767	-	-	-613
9 Gas Processing	-	-	-	-
10 Petroleum Refineries	-	-	-44,642	46,348
11 Coal Transformation	-15	13	-	-
12 Other Transformation	-	-	-	-
13 Loss & Own Use	-	-	-893	-
14 Discrepancy	-1,284	0	-3,506	-5,009
15 Total Final Energy Consumption	8,486	13	-	45,952
16 Industry Sector	8,486	-	-	10,444
17 Transport Sector	-	-	-	25,852
18 Other Sector	-	13	-	9,656
18.1 Agriculture	-	-	-	-
18.2 Residential & Commercial	-	13	-	9,656
18.3 Other	-	-	-	-

=66x48+231+0

=66x48+231+162

=66x48+0+0

=66x48+0+162



Unit: ktoe

Natural Gas. LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
-	-	-	-	81	-	-	81
2,033	-	-	-	-	946	-	25,210
-	-	-	-	-	-387	-	-1,763
-	-	-	-	-	-	-	-5,718
-	-	-	-	-	-	-	-48
2,033	-	-	-	81	559	-	17,762
-2,033	-	-	-	-	3,307	-	-5,632
-	-	-	-	-41	-	-	-41
586	-	-	-	-	-	-	-132
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-422	-	-422
-	-	-	-	-41	-0	-	-1,172
586	-	-	-	-	3,444	-	10,364
19	-	-	-	-	350	-	574
-	-	-	-	-	123	-	6,001
567	-	-	-	-	2,971	-	3,788
-	-	-	-	-	-	-	-
567	-	-	-	-	2,971	-	3,660
-	-	-	-	-	-	-	128

Energy Balances

Unit: ktoe

Natural Gas. LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
68,663	925	-	5,679	43,525	-	-	249,683
-	-	-	-	-	-	-	41,760
-30,953	-	-	-	-	-	-	-115,627
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-1,320
37,710	925	-	5,679	43,525	-	-	174,495
-3,423	-845	-	-2,585	-	10,952	-	-13,736
-	-80	-	-3,094	-7	-	-	-8,562
-7,877	-	-	-	-	-	-	-7,877
-	-	-	-	-	-	-	1,706
-	-	-	-	-	-	-	-3
-	-	-	-	-	-	-	-
-14,406	-	-	-	-	-1,570	-	-16,869
-911	-0	-	-0	-	-177	-	-10,888
11,093	-	-	-	43,518	9,205	-	118,267
11,049	-	-	-	6,919	3,651	-	40,548
5	-	-	-	-	-	-	25,858
39	-	-	-	36,599	5,554	-	51,861
-	-	-	-	-	-	-	-
39	-	-	-	36,599	5,197	-	51,504
-	-	-	-	-	357	-	357

=66x48+231+0

=66x48+231+162

=66x48+0+0

=66x48+0+162

Japan, 2005

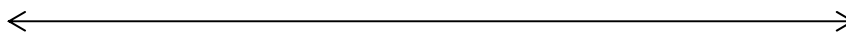
	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	567	-	794	-
2 Import	110,202	1,936	212,130	50,128
3 Export	-	-1,178	-	-8,643
4 International Marine Bunkers	-	-	-	-6,155
5 Stock Change	-578	-	1,749	1,584
6 Total Primary Energy Supply	110,191	758	214,674	36,914
7 Public Electricity	-50,947	-4,071	-5,916	-11,508
8 Autoproducers of Electricity	-9,547	-2,876	-	-12,360
9 Gas Processing	-	-50	-	-1,596
10 Petroleum Refineries	-	-	-214,134	212,997
11 Coal Transformation	-38,474	35,618	-	-626
12 Other Transformation	-	-	-1	-
13 Loss & Own Use	-104	-2,884	-	-13,033
14 Discrepancy	3,666	-4,030	-49	-3,935
15 Total Final Energy Consumption	14,785	22,464	-	206,853
16 Industry Sector	14,785	21,468	-	72,206
17 Transport Sector	-	-	-	92,004
18 Other Sector	-	995	-	42,643
18.1 Agriculture	-	-	-	5,614
18.2 Residential & Commercial	-	995	-	34,308
18.3 Other	-	-	-	2,721

Republic of Korea, 2005

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	1,214	-	350	1,293
2 Import	46,671	222	116,619	21,457
3 Export	-	-	-2	-35,579
4 International Marine Bunkers	-	-	-	-9,905
5 Stock Change	1,355	-	935	1,369
6 Total Primary Energy Supply	49,240	222	117,902	-21,366
7 Public Electricity	-29,221	-	-	-4,592
8 Autoproducers of Electricity	-1,460	-2,392	-	-638
9 Gas Processing	-	-	-	-
10 Petroleum Refineries	-	-	-124,842	123,894
11 Coal Transformation	-14,641	6,575	-	-
12 Other Transformation	-	-	-	-195
13 Loss & Own Use	-	-20	-	-4,866
14 Discrepancy	-30	-222	6,940	-7,481
15 Total Final Energy Consumption	3,888	4,163	-	84,812
16 Industry Sector	3,888	3,209	-	40,060
17 Transport Sector	-	-	-	31,933
18 Other Sector	-	953	-	12,819
18.1 Agriculture	-	-	-	1,429
18.2 Residential & Commercial	-	953	-	9,205
18.3 Other	-	-	-	2,185

=66x48+231+0

=66x48+231+162



Unit: ktoe

Natural Gas, LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
2,761	7,488	76,366	3,700	5,882	-	-	97,558
67,722	-	-	-	-	-	-	442,118
-	-	-	-	-	-	-	-9,821
-	-	-	-	-	-	-	-6,155
-3	-	-	-	-	-	-	2,753
70,481	7,488	76,366	3,700	5,882	-	-	526,452
-42,744	-6,941	-76,366	-2,597	-	82,737	659	-117,694
-3,235	-546	-	-312	-6,427	16,326	-	-18,977
1,503	-	-	-	-	-	-	-143
-	-	-	-	-	-	-	-1,137
-	-	-	-	-	-	-	-3,483
-	-	-	-	-14	-	-	-14
-1,822	-	-	-	-	-11,612	-	-29,455
2,093	0	-	-0	2,752	410	-65	841
26,276	-	-	790	2,194	87,861	594	361,817
10,694	-	-	-	2,166	36,935	-	158,255
-	-	-	-	-	1,851	-	93,856
15,581	-	-	790	28	49,076	594	109,707
-	-	-	93	-	331	-	6,038
15,581	-	-	697	28	48,745	594	100,948
-	-	-	-	-	-	-	2,721

Energy Balances

Unit: ktoe

Natural Gas, LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
441	446	38,251	50	2,114	-	-	44,158
26,112	-	-	-	26	-	-	211,106
-	-	-	-	-	-	-	-35,581
-	-	-	-	-	-	-	-9,905
863	-	-	-	-	-	-	4,522
27,415	446	38,251	50	2,141	-	-	214,300
-10,485	-446	-38,251	-11	-41	31,200	1,536	-50,310
-591	-	-	-2	-306	2,283	3,086	-19
0	-	-	-	-	-	-	0
-	-	-	-	-	-	-	-948
-	-	-	-	-	-	-	-8,067
-	-	-	-	-8	-	-	-203
-489	-	-	-	-	-3,021	-90	-8,486
136	-	-	0	-0	247	-12	-422
15,986	-	-	37	1,786	30,709	4,520	145,902
4,188	-	-	0	1,465	15,820	2,869	71,480
323	-	-	-	-	177	-	32,434
11,495	-	-	37	321	14,712	1,652	41,988
24	-	-	-	-	455	-	1,908
11,470	-	-	37	321	14,110	1,652	37,747
-	-	-	-	-	148	-	2,333

=66x48+0+0

=66x48+0+162

Malaysia, 2005

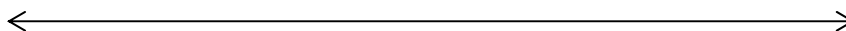
	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	408	-	36,746	2,325
2 Import	6,277	-	8,242	7,954
3 Export	-42	-	-19,073	-8,417
4 International Marine Bunkers	-	-	-	-59
5 Stock Change	-23	-	884	-404
6 Total Primary Energy Supply	6,620	-	26,799	1,400
7 Public Electricity	-5,260	-	-	-573
8 Autoproducers of Electricity	-	-	-	-2
9 Gas Processing	-	-	-	-
10 Petroleum Refineries	-	-	-24,551	21,349
11 Coal Transformation	-	-	-	-
12 Other Transformation	-	-	-	-
13 Loss & Own Use	-	-	-	-
14 Discrepancy	-80	-	-2,247	821
15 Total Final Energy Consumption	1,280	-	-	22,995
16 Industry Sector	1,280	-	-	5,496
17 Transport Sector	-	-	-	15,228
18 Other Sector	-	-	-	2,270
18.1 Agriculture	-	-	-	101
18.2 Residential & Commercial	-	-	-	1,538
18.3 Other	-	-	-	632

Mexico, 2005

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	5,158	-	197,075	-
2 Import	3,519	247	209	16,821
3 Export	-	-1	-105,477	-3,940
4 International Marine Bunkers	-	-	-	-889
5 Stock Change	-650	463	-77	-265
6 Total Primary Energy Supply	8,027	709	91,730	11,726
7 Public Electricity	-6,912	-	-	-15,620
8 Autoproducers of Electricity	-	-207	-	-
9 Gas Processing	-	-	-	-
10 Petroleum Refineries	-	-	-85,553	71,304
11 Coal Transformation	-1,025	712	-	-
12 Other Transformation	-	-	-	-
13 Loss & Own Use	-	-19	-	-6,547
14 Discrepancy	-0	-	6,175	-3,830
15 Total Final Energy Consumption	90	1,194	-	70,556
16 Industry Sector	90	1,194	-	12,252
17 Transport Sector	-	-	-	46,838
18 Other Sector	-	-	-	11,465
18.1 Agriculture	-	-	-	2,461
18.2 Residential & Commercial	-	-	-	9,004
18.3 Other	-	-	-	-

=66x48+231+0

=66x48+231+162



Unit: ktoe

Natural Gas. LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
51,992	497	-	-	-	-	-	91,969
1,213	-	-	-	-	-	-	23,687
-26,791	-	-	-	-	-	-	-54,323
-	-	-	-	-	-	-	-59
-	-	-	-	-	-	-	456
26,414	497	-	-	-	-	-	61,730
-11,112	-497	-	-	-	7,106	-	-10,337
-836	-	-	-	-	403	-	-435
-5,822	-	-	-	-	-	-	-5,822
-	-	-	-	-	-	-	-3,203
-	-	-	-	-	-	-	-
-1,419	-	-	-	-	-	-	-1,419
-887	-	-	-	-	-256	-	-1,143
-15	-	-	-	-	-313	-	-1,834
6,322	-	-	-	-	6,940	-	37,536
4,815	-	-	-	-	3,369	-	14,960
86	-	-	-	-	5	-	15,319
1,421	-	-	-	-	3,565	-	7,257
-	-	-	-	-	-	-	101
26	-	-	-	-	3,565	-	5,129
1,395	-	-	-	-	-	-	2,027

Energy Balances

Unit: ktoe

Natural Gas. LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
36,904	2,385	2,816	6,355	8,310	-	-	259,003
7,493	-	-	-	-	7	-	28,296
-	-	-	-	-	-111	-	-109,530
-	-	-	-	-	-	-	-889
21	-	-	-	-	-	-	-509
44,418	2,385	2,816	6,355	8,310	-104	-	176,372
-15,841	-2,375	-2,816	-6,278	-	18,832	-	-31,010
-2,126	-10	-	-4	-1,149	1,369	-	-2,126
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-14,249
-	-	-	-	-	-	-	-313
-	-	-	-	-	-	-	-
-11,193	-	-	-	-	-4,800	-	-22,559
-1,471	-	-	-0	-	-49	-	825
13,787	-	-	73	7,162	15,248	-	108,110
11,997	-	-	-	1,258	9,125	-	35,916
728	-	-	-	-	102	-	47,668
1,062	-	-	73	5,904	6,022	-	24,526
-	-	-	-	-	627	-	3,088
1,062	-	-	73	5,904	5,395	-	21,438
-	-	-	-	-	-	-	-

=66x48+0+0

=66x48+0+162

New Zealand, 2005

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	3,057	-	1,057	-
2 Import	557	-	4,829	2,021
3 Export	-1,684	-	-622	-178
4 International Marine Bunkers	-	-	-	-229
5 Stock Change	74	-	-159	101
6 Total Primary Energy Supply	2,003	-	5,105	1,714
7 Public Electricity	-1,215	-	-	-1
8 Autoproducers of Electricity	-21	-305	-	-
9 Gas Processing	-	-	-	-
10 Petroleum Refineries	-	-	-5,096	5,456
11 Coal Transformation	-384	305	-	-
12 Other Transformation	-	-	-	-
13 Loss & Own Use	-	-	-	-336
14 Discrepancy	103	-	162	-215
15 Total Final Energy Consumption	486	-	-	6,795
16 Industry Sector	364	-	-	652
17 Transport Sector	-	-	-	5,585
18 Other Sector	122	-	-	558
18.1 Agriculture	27	-	-	179
18.2 Residential & Commercial	95	-	-	255
18.3 Other	-	-	-	124

Papua New Guinea, 2005

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	-	-	2,454	-
2 Import	-	-	917	984
3 Export	-	-	-2,344	-423
4 International Marine Bunkers	-	-	-	-
5 Stock Change	-	-	-	-
6 Total Primary Energy Supply	-	-	1,027	561
7 Public Electricity	-	-	-	-593
8 Autoproducers of Electricity	-	-	-	-57
9 Gas Processing	-	-	-	-
10 Petroleum Refineries	-	-	-1,010	1,000
11 Coal Transformation	-	-	-	-
12 Other Transformation	-	-	-	-
13 Loss & Own Use	-	-	-	-34
14 Discrepancy	-	-	-18	-12
15 Total Final Energy Consumption	-	-	-	867
16 Industry Sector	-	-	-	440
17 Transport Sector	-	-	-	387
18 Other Sector	-	-	-	40
18.1 Agriculture	-	-	-	-
18.2 Residential & Commercial	-	-	-	-
18.3 Other	-	-	-	40

=66x48+231+0

=66x48+231+162

=66x48+0+0

=66x48+0+162



Unit: ktoe

Natural Gas, LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
3,194	2,018	-	2,719	870	-	-	12,916
-	-	-	-	-	-	-	7,406
-	-	-	-	-	-	-	-2,484
-	-	-	-	-	-	-	-229
1	-	-	-	-	-	-	16
3,195	2,018	-	2,719	870	-	-	17,625
-1,550	-2,018	-	-2,483	-24	3,530	-	-3,761
-148	-	-	-	-182	160	12	-484
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	360
-	-	-	-	-	-	-	-79
-	-	-	-	-	-	-	-
-148	-	-	-	-	-455	-	-939
17	-	-	-	-0	-49	-12	6
1,365	-	-	236	665	3,187	-	12,735
1,063	-	-	136	510	1,280	-	4,006
4	-	-	-	-	39	-	5,627
298	-	-	100	155	1,868	-	3,101
-	-	-	-	-	113	-	319
298	-	-	100	155	1,750	-	2,653
-	-	-	-	-	4	-	129

Energy Balances

Unit: ktoe

Natural Gas, LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
120	77	-	-	-	-	-	2,651
-	-	-	-	-	-	-	1,901
-	-	-	-	-	-	-	-2,767
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
120	77	-	-	-	-	-	1,786
-	-46	-	-	-	224	-	-415
-120	-30	-	-	-	104	-	-104
-	-	-	-	-	-	-	-9
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-18	-	-52
-	-	-	-	-	-0	-	-29
-	-	-	-	-	309	-	1,176
-	-	-	-	-	234	-	673
-	-	-	-	-	-	-	387
-	-	-	-	-	75	-	116
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	75	-	116

=66x48+231+0

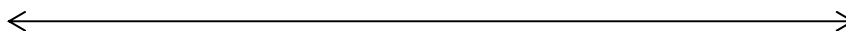
=66x48+231+162

Peru, 2005

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	30	-	4,074	-
2 Import	657	151	4,698	1,010
3 Export	-	-	-609	-3,068
4 International Marine Bunkers	-	-	-	-
5 Stock Change	70	20	95	39
6 Total Primary Energy Supply	757	171	8,258	-2,019
7 Public Electricity	-230	-	-	-345
8 Autoproducers of Electricity	-	-	-	-263
9 Gas Processing	-	-	-	-
10 Petroleum Refineries	-	-	-7,782	7,973
11 Coal Transformation	-	-100	-	-
12 Other Transformation	-	-	-	-
13 Loss & Own Use	-	-	-	-
14 Discrepancy	0	-7	338	953
15 Total Final Energy Consumption	527	63	-	6,299
16 Industry Sector	527	63	-	1,609
17 Transport Sector	-	-	-	3,491
18 Other Sector	0	-	-	1,199
18.1 Agriculture	-	-	-	34
18.2 Residential & Commercial	0	-	-	868
18.3 Other	-	-	-	297

Philippines, 2005

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	1,520	-	589	-
2 Import	3,710	-	10,843	5,244
3 Export	-	-	-560	-1,423
4 International Marine Bunkers	-	-	-	-122
5 Stock Change	-	-	174	103
6 Total Primary Energy Supply	5,230	-	11,046	3,801
7 Public Electricity	-4,109	-	-	-1,382
8 Autoproducers of Electricity	-	-	-	-
9 Gas Processing	-	-	-	-
10 Petroleum Refineries	-	-	-10,482	10,187
11 Coal Transformation	-	-	-	-
12 Other Transformation	-	-	-	-
13 Loss & Own Use	-	-	-	555
14 Discrepancy	88	-	-1,119	19
15 Total Final Energy Consumption	1,208	-	-	12,625
16 Industry Sector	1,208	-	-	2,054
17 Transport Sector	-	-	-	8,444
18 Other Sector	-	-	-	2,128
18.1 Agriculture	-	-	-	174
18.2 Residential & Commercial	-	-	-	1,658
18.3 Other	-	-	-	296



Unit: ktoe

Natural Gas, LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
2,221	1,546	-	2	2,163	-	-	10,035
-	-	-	-	-	-	-	6,515
-	-	-	-	-	-1	-	-3,677
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	225
2,221	1,546	-	2	2,163	-1	-	13,098
-1,195	-1,543	-	-	-	2,048	-	-1,265
-68	-3	-	-0	-114	146	-	-302
-296	-	-	-	-	-	-	-296
-	-	-	-	-	-	-	191
-	-	-	-	-	-	-	-100
-	-	-	-0	-78	-	-	-78
-533	-	-	-	-	-293	-	-827
50	-	-	-0	-0	1	-	1,335
179	-	-	1	1,971	1,900	-	10,942
179	-	-	0	60	1,075	-	3,514
0	-	-	-	-	-	-	3,491
0	-	-	1	1,911	826	-	3,937
-	-	-	-	-	-	-	34
0	-	-	1	1,911	780	-	3,560
-	-	-	-	-	46	-	343

Energy Balances

Unit: ktoe

Natural Gas, LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
2,683	721	-	8,517	7,498	-	-	21,529
-	-	-	-	-	-	-	19,797
-	-	-	-	-	-	-	-1,983
-	-	-	-	-	-	-	-122
-	-	-	-	-	-	-	276
2,683	721	-	8,517	7,498	-	-	39,496
-2,473	-721	-	-8,517	-	4,865	-	-12,338
-	-	-	-	-10	2	-	-7
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-295
-	-	-	-	-	-	-	-
-	-	-	-	-1,284	-	-	-1,284
-210	-	-	-	-	-987	-	-641
0	-	-	-	0	36	-	-977
0	-	-	-	6,204	3,917	-	23,954
-	-	-	-	1,206	1,368	-	5,836
0	-	-	-	-	8	-	8,452
-	-	-	-	4,998	2,540	-	9,666
-	-	-	-	-	7	-	181
-	-	-	-	4,998	2,532	-	9,188
-	-	-	-	-	2	-	298

Russia, 2005

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	138,974	-	468,711	-
2 Import	12,299	106	2,438	27
3 Export	-43,650	-1,997	-253,850	-84,276
4 International Marine Bunkers	-	-	-	-
5 Stock Change	-2,364	-30	-458	1,023
6 Total Primary Energy Supply	105,259	-1,921	216,841	-83,226
7 Public Electricity	-52,217	-	-	-5,102
8 Autoproducers of Electricity	-19,909	-4,697	-766	-10,900
9 Gas Processing	-	-	-	-
10 Petroleum Refineries	-	-	-213,129	207,510
11 Coal Transformation	-24,543	16,502	-	-
12 Other Transformation	-	-	-	-
13 Loss & Own Use	-425	-142	-2,876	-12,495
14 Discrepancy	21	6	0	-620
15 Total Final Energy Consumption	8,185	9,749	70	95,167
16 Industry Sector	2,795	9,735	13	20,788
17 Transport Sector	-	-	19	53,842
18 Other Sector	5,390	14	38	20,537
18.1 Agriculture	113	-	7	4,214
18.2 Residential & Commercial	5,221	14	31	7,409
18.3 Other	56	-	-	8,913

Singapore, 2005

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	-	-	-	-
2 Import	-	1	58,669	54,848
3 Export	-	-	-	-63,343
4 International Marine Bunkers	-	-	-	-28,096
5 Stock Change	-	-	-	-
6 Total Primary Energy Supply	-	1	58,669	-36,591
7 Public Electricity	-	-	-	-1,724
8 Autoproducers of Electricity	-	-	-	-
9 Gas Processing	-	-1	-	-128
10 Petroleum Refineries	-	-	-58,669	50,898
11 Coal Transformation	-	-	-	-
12 Other Transformation	-	-	-	-
13 Loss & Own Use	-	-	-	-766
14 Discrepancy	-	-	-	-0
15 Total Final Energy Consumption	-	-	-	11,688
16 Industry Sector	-	-	-	6,713
17 Transport Sector	-	-	-	4,726
18 Other Sector	-	-	-	250
18.1 Agriculture	-	-	-	-
18.2 Residential & Commercial	-	-	-	-
18.3 Other	-	-	-	250

=66x48+0+0

=66x48+0+162



Unit: ktoe

Natural Gas, LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
515,726	15,016	38,967	353	6,950	-	-	1,184,697
6,200	-	-	-	-	872	-	21,942
-167,386	-	-	-	-	-1,937	-	-553,094
-	-	-	-	-	-	-	-
-4,950	-	-	-	-36	-	-	-6,816
349,591	15,016	38,967	353	6,914	-1,065	-	646,730
-126,942	-14,920	-38,967	-353	-	77,903	52,745	-107,852
-76,796	-96	-	-	-4,054	4,063	87,343	-25,811
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-5,619
-	-	-	-	-	-	-	-8,042
-2,054	-	-	-	-	-	-	-2,054
-15,775	-	-	-	-250	-25,003	-19,828	-76,794
-0	-0	-	-	0	0	-	-594
128,025	-	-	-	2,611	55,898	120,261	419,965
51,531	-	-	-	584	28,369	46,801	160,617
33,837	-	-	-	-	7,153	-	94,850
42,657	-	-	-	2,026	20,376	73,460	164,498
549	-	-	-	283	1,448	3,234	9,849
41,693	-	-	-	1,743	18,908	70,214	145,234
415	-	-	-	-	19	12	9,415

Energy Balances

Unit: ktoe

Natural Gas, LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
-	-	-	-	-	-	-	-
5,234	-	-	-	-	-	-	118,753
-	-	-	-	-	-	-	-63,343
-	-	-	-	-	-	-	-28,096
-	-	-	-	-	-	-	-
5,234	-	-	-	-	-	-	27,314
-5,234	-	-	-	-	3,197	-	-3,761
-	-	-	-	-	-	-	-
96	-	-	-	-	-	-	-34
-	-	-	-	-	-	-	-7,772
-	-	-	-	-	-	-	-
-	-	-	-	-	-289	-	-1,055
-0	-	-	-	-	52	-	52
96	-	-	-	-	2,960	-	14,744
55	-	-	-	-	1,290	-	8,058
-	-	-	-	-	-	-	4,726
41	-	-	-	-	1,670	-	1,960
-	-	-	-	-	4	-	4
41	-	-	-	-	1,666	-	1,707
-	-	-	-	-	-	-	250

=66x48+231+0

=66x48+231+162

Chinese Taipei, 2005

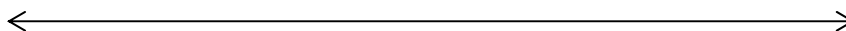
	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	-	-	29	-
2 Import	39,704	12	54,576	7,864
3 Export	-	-	-	-15,590
4 International Marine Bunkers	-	-	-	-2,437
5 Stock Change	-463	-68	-302	204
6 Total Primary Energy Supply	39,240	-57	54,303	-9,960
7 Public Electricity	-21,458	-	-	-2,447
8 Autoproducers of Electricity	-6,587	-540	-	-1,435
9 Gas Processing	-	-	-	-
10 Petroleum Refineries	-	-	-54,431	54,448
11 Coal Transformation	-4,167	2,535	-	-
12 Other Transformation	-	-	-	-
13 Loss & Own Use	-	-	-	-2,734
14 Discrepancy	-2,209	-51	128	-1,329
15 Total Final Energy Consumption	4,818	1,888	-	38,737
16 Industry Sector	4,818	1,888	-	19,394
17 Transport Sector	-	-	-	14,586
18 Other Sector	-	-	-	4,757
18.1 Agriculture	-	-	-	4
18.2 Residential & Commercial	-	-	-	2,316
18.3 Other	-	-	-	2,436

Thailand, 2005

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	5,220	-	9,893	-
2 Import	4,281	1,180	41,693	1,980
3 Export	-	-	-3,453	-5,516
4 International Marine Bunkers	-	-	-	-
5 Stock Change	-	-	1,418	-2,370
6 Total Primary Energy Supply	9,501	1,180	49,550	-5,905
7 Public Electricity	-4,725	-	-	-1,951
8 Autoproducers of Electricity	-	-	-	-16
9 Gas Processing	-	-	-	-
10 Petroleum Refineries	-	-	-46,494	36,365
11 Coal Transformation	-	-	-	-
12 Other Transformation	-	-	-	-232
13 Loss & Own Use	-	-	-	-
14 Discrepancy	887	-15	-10	4,273
15 Total Final Energy Consumption	5,663	1,164	3,046	32,534
16 Industry Sector	5,663	1,164	3,046	4,032
17 Transport Sector	-	-	-	23,436
18 Other Sector	-	-	-	5,066
18.1 Agriculture	-	-	-	3,187
18.2 Residential & Commercial	-	-	-	1,880
18.3 Other	-	-	-	-

=66x48+0+0

=66x48+0+162



Unit: ktoe

Natural Gas. LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
487	680	10,417	96	1,443	-	-	13,152
9,842	-	-	-	-	-	-	111,997
-	-	-	-	-	-	-	-15,590
-	-	-	-	-	-	-	-2,437
147	-	-	-	-	-	-	-483
10,476	680	10,417	96	1,443	-	-	106,638
-7,340	-680	-10,417	-7	-	16,100	-	-26,249
-178	-	-	-1	-1,443	3,461	-	-6,724
-595	-	-	-	-	-	-	-595
-	-	-	-	-	-	-	17
-	-	-	-	-	-	-	-1,632
-	-	-	-	-	-	-	-
-321	-	-	-	-	-2,070	-	-5,125
-56	-	-	-	-	-757	-	-4,273
1,986	-	-	88	-	16,734	-	64,251
862	-	-	-	-	8,911	-	35,873
-	-	-	-	-	115	-	14,701
1,124	-	-	88	-	7,709	-	13,677
-	-	-	-	-	122	-	127
1,124	-	-	88	-	7,494	-	11,023
-	-	-	-	-	92	-	2,528

Energy Balances

Unit: ktoe

Natural Gas. LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
20,726	499	-	2	17,042	-	-	53,381
8,179	-	-	-	23	380	-	57,715
-	-	-	-	-1	-55	-	-9,025
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-952
28,905	499	-	2	17,064	325	-	101,120
-18,863	-499	-	-2	-	10,191	-	-15,848
-2,341	-	-	-	-1,186	1,178	-	-2,365
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-10,130
-	-	-	-	-	-	-	-
-	-	-	-	-4,782	-	-	-5,014
-	-	-	-	-	-1,307	-	-1,307
-5,632	-	-	0	-20	0	-	-517
2,069	-	-	-	11,075	10,387	-	65,938
2,019	-	-	-	5,585	4,853	-	26,362
50	-	-	-	-	5	-	23,491
-	-	-	-	5,491	5,529	-	16,086
-	-	-	-	-	21	-	3,208
-	-	-	-	5,491	5,459	-	12,829
-	-	-	-	-	49	-	49

=66x48+231+0

=66x48+231+162

=66x48+0+0

=66x48+0+162

United States of America, 2005

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	564,062	-	330,030	1,691
2 Import	18,066	2,100	599,369	118,067
3 Export	-27,907	-4,040	-4,911	-52,505
4 International Marine Bunkers	-	-	-	-25,902
5 Stock Change	3,390	-156	-5,516	1,542
6 Total Primary Energy Supply	557,611	-2,096	918,973	42,892
7 Public Electricity	-423,275	-76,486	-	-28,663
8 Autoproducers of Electricity	-4,465	-1,193	-	-1,240
9 Gas Processing	-1,888	-	-	-
10 Petroleum Refineries	-	-	-842,994	876,565
11 Coal Transformation	-92,008	85,553	-	-
12 Other Transformation	-	-	-	-
13 Loss & Own Use	-165	-1,888	-	-51,232
14 Discrepancy	-11,592	90	-28,579	-8,121
15 Total Final Energy Consumption	24,219	3,980	-	881,045
16 Industry Sector	21,888	3,980	-	179,710
17 Transport Sector	-	-	-	638,998
18 Other Sector	2,330	-	-	62,337
18.1 Agriculture	428	-	-	16,372
18.2 Residential & Commercial	1,903	-	-	45,965
18.3 Other	-	-	-	-

Viet Nam, 2005

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	18,961	-	18,864	643
2 Import	-	-	-	12,110
3 Export	-10,073	-	-18,833	-
4 International Marine Bunkers	-	-	-	-
5 Stock Change	368	-	-	-
6 Total Primary Energy Supply	9,256	-	31	12,753
7 Public Electricity	-2,661	-	-	-764
8 Autoproducers of Electricity	-	-	-	-318
9 Gas Processing	-	-	-	-
10 Petroleum Refineries	-	-	-	-
11 Coal Transformation	-	-	-	-
12 Other Transformation	-	-	-	-
13 Loss & Own Use	-	-	-	-
14 Discrepancy	-464	-	-31	-118
15 Total Final Energy Consumption	6,132	-	-	11,553
16 Industry Sector	4,761	-	-	2,745
17 Transport Sector	-	-	-	6,814
18 Other Sector	1,371	-	-	1,994
18.1 Agriculture	21	-	-	508
18.2 Residential & Commercial	1,350	-	-	1,486
18.3 Other	-	-	-	-

=66x48+231+0

=66x48+231+162



Unit: ktoe

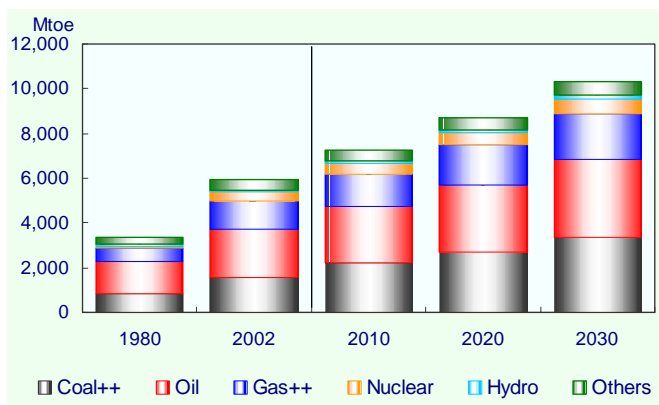
Natural Gas, LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
422,177	24,976	211,275	18,240	73,644	-	-	1,646,095
100,874	-	-	-	211	3,829	-	842,517
-16,694	-	-	-	-	-1,703	-	-107,761
-	-	-	-	-	-	-	-25,902
1,417	-	-	-	-34	-	-	642
507,773	24,976	211,275	18,240	73,821	2,126	-	2,355,591
-136,890	-24,690	-211,275	-16,155	-12,657	344,111	8,625	-577,355
-17,766	-286	-	-	-9,101	14,314	-	-19,737
1,198	-	-	-	-	-	-	-690
-	-	-	-	-	-	-	33,571
-	-	-	-	-	-	-	-6,455
-	-	-	-	-7,847	-	-	-7,847
-41,879	-	-	-	-	-43,497	-5,365	-144,026
10,000	-	-	-0	0	2,895	-0	-35,307
322,435	-	-	2,085	44,217	319,949	3,260	1,601,190
124,833	-	-	108	31,920	79,449	2,576	444,466
14,167	-	-	-	-	646	-	653,810
183,435	-	-	1,977	12,296	239,855	684	502,914
-	-	-	-	189	-	-	16,988
183,435	-	-	1,977	12,053	226,550	684	472,567
-	-	-	-	55	13,304	-	13,359

Energy Balances

Unit: ktoe

Natural Gas, LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
6,520	1,505	-	-	14,807	-	-	61,299
-	-	-	-	-	6	-	12,116
-1,411	-	-	-	-	-	-	-30,317
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	368
5,109	1,505	-	-	14,807	6	-	43,465
-4,871	-1,505	-	-	-	3,455	-	-6,345
-	-	-	-	-29	904	-	558
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-530	-	-530
571	-	-	-	-	87	-	46
809	-	-	-	14,778	3,922	-	37,194
809	-	-	-	2,972	1,832	-	13,119
-	-	-	-	-	-	-	6,814
-	-	-	-	11,806	2,090	-	17,262
-	-	-	-	-	49	-	579
-	-	-	-	11,806	2,041	-	16,683
-	-	-	-	-	-	-	-

Primary Energy Supply Outlook by Energy

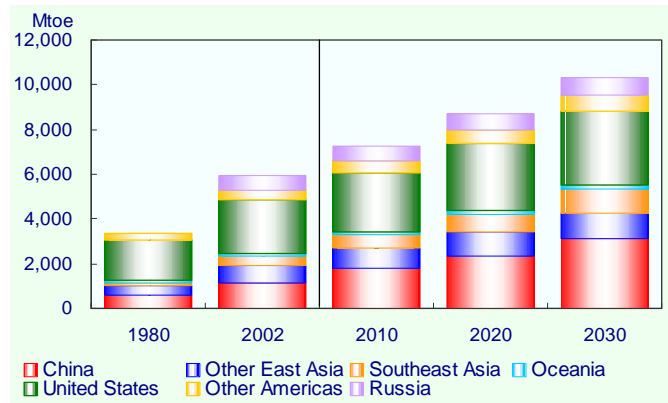


	1980	2002	2010	2020	2030
Coal++	822	1,570	2,211	2,716	3,366
Oil	1,445	2,165	2,523	2,982	3,488
Gas++	595	1,255	1,469	1,783	2,050
Nuclear	104	382	442	540	643
Hydro	65	114	132	159	197
Others	332	454	489	526	589
Total	3,363	5,939	7,266	8,706	10,332

	1999	2005	2010	2015	2020
Coal++	24.4	26.4	30.4	31.2	32.6
Oil	43.0	36.4	34.7	34.2	33.8
Gas++	17.7	21.1	20.2	20.5	19.8
Nuclear	3.1	6.4	6.1	6.2	6.2
Hydro	1.9	1.9	1.8	1.8	1.9
Others	9.9	7.6	6.7	6.0	5.7

By Asia Pacific Energy Research Centre, September 2006.

Primary Energy Supply Outlook by Region



	Mtoe				
	1980	2002	2010	2020	2030
China	599	1,119	1,777	2,345	3,096
Other East Asia	422	812	921	1,057	1,152
Southeast Asia	140	408	575	802	1,066
Oceania	80	133	151	181	212
United States	1,812	2,394	2,659	2,985	3,318
Other Americas	311	438	512	613	720
Russia	0	635	671	723	769
APEC 21	3,363	5,939	7,265	8,706	10,333

	Share (%)				
	1980	2002	2010	2020	2030
China	17.8	18.8	24.5	26.9	30.0
Other East Asia	12.5	13.7	12.7	12.1	11.1
Southeast Asia	4.2	6.9	7.9	9.2	10.3
Oceania	2.4	2.2	2.1	2.1	2.1
United States	53.9	40.3	36.6	34.3	32.1
Other Americas	9.3	7.4	7.0	7.0	7.0
Russia	-	10.7	9.2	8.3	7.4

Other East Asia includes Hong Kong, China; Japan; Republic of Korea and Chinese Taipei.
 Other Americas includes Canada, Chile, Mexico, and Peru.
 Southeast Asia includes Viet Nam.

Energy Outlook

Selected Energy Indicators APEC Region

	Population			Real GDP			Real GDP	
	Millions			Billions of 2000 Price and 2000 USD			Billions of 2000 Price and 2000 PPP	
	1980	1990	2005	1980	1990	2005	1980	1990
APEC 19	1,787	2,063	2,414	-	13,852	21,960	10,246	15,326
APEC 21	1,980	2,277	2,641	-	14,253	22,355	10,246	16,925
East Asia	1,159	1,328	1,510	3,232	5,110	8,084	3,046	5,404
China	981.2	1,135.2	1,304.5	182.9	444.6	1,889.9	759.1	1,844.9
Hong Kong, China	5.1	5.7	6.9	58.3	108.4	207.9	60.4	112.2
Japan	116.8	123.5	127.8	2,793.1	4,111.3	4,992.8	1,988.3	2,926.7
Republic of Korea	38.1	42.9	48.3	122.8	283.6	637.9	182.2	420.7
Chinese Taipei	17.8	20.4	22.7	75.1	161.8	355.9	55.5	99.2
Southeast Asia	259	315	398	-	340	690	601	1,023
Brunei Darussalam	0.2	0.3	0.4	-	4.8	6.6	-	4.8
Indonesia	148.3	178.2	220.6	58.8	109.2	207.7	213.5	396.2
Malaysia	13.8	17.8	25.3	25.4	45.5	112.5	55.5	99.2
Philippines	48.1	61.1	83.1	47.6	56.2	94.4	191.4	226.2
Singapore	2.4	3.0	4.3	21.9	44.7	112.2	22.3	45.7
Thailand	46.3	54.6	64.2	37.3	79.4	156.8	117.9	251.0
Oceania	21	25	30	244	323	535	311	410
Australia	14.7	17.1	20.3	208.5	280.5	468.4	256.0	344.4
New Zealand	3.1	3.4	4.1	33.1	39.8	62.7	48.1	57.9
Papua New Guinea	3.2	4.1	5.9	1.9	2.2	3.8	6.9	7.8
North America	252	277	329	5,536	7,591	11,856	5,612	7,690
Canada	24.6	27.8	32.3	408.2	535.6	809.5	483.6	634.6
United States of America	227.2	249.6	296.4	5,128.0	7,055.0	11,046	5,128.0	7,055.0
Latin America	96.1	118.2	147.4	412.6	489.9	794.9	677.7	799.2
Chile	11.2	13.2	16.3	27.9	40.4	93.2	52.3	75.7
Mexico	67.6	83.2	103.1	345.6	413.3	636.3	535.5	640.5
Peru	17.3	21.8	28.0	39.1	36.1	65.4	89.9	83.0
Russia	139.0	148.3	143.1	-	385.9	349.9	-	1,523.0
Viet Nam	53.7	66.2	83.1	-	15.0	44.7	-	76.3

Note: APEC 19 is not included Russia and Viet Nam.

	Energy Indigenous Production				Net Import			Total Primary Energy Supply			
	Mtoe				Mtoe			Mtoe			
	2005	1980	1990	2005	1980	1990	2005	1980	1990	2005	
	28,795	2,580	3,322	4,563	500	555	1,257	3,052	3,758	5,729	
	30,403	2,580	3,328	5,794	500	555	707	3,052	3,764	6,405	
	12,803	500	812	1,581	340	451	859	842	1,237	2,403	
	7,842.2	436.3	705.8	1,426.0	-19.6	-30.5	138.1	421.0	654.0	1,544.6	CHN
	215.2	0.0	0.0	0.1	6.0	10.8	23.4	5.3	10.6	17.8	HKG
	3,554.2	48.7	72.6	97.6	303.2	361.6	425.2	352.6	432.5	519.4	JPN
	946.5	9.2	22.6	44.2	29.6	70.1	175.5	38.3	93.4	214.3	KOR
	245.4	5.7	10.7	13.2	20.3	39.4	96.4	25.1	46.0	106.6	TWN
	1,996	132	199	371	-54	-52	-2	71	133	340	
	6.6	20.7	15.3	21.6	-17.4	-12.9	-19.3	3.2	2.1	2.3	BRN
	754.1	92.1	119.4	206.2	-60.7	-65.9	-73.9	31.1	53.3	131.0	IDN
	245.4	16.1	46.5	92.0	-5.0	-25.4	-30.6	10.6	21.0	61.7	MYS
	379.6	2.7	6.0	14.0	10.4	11.4	17.8	12.4	17.3	32.0	PHL
	114.6	0.0	0.0	0.0	6.7	22.9	55.4	2.0	9.9	27.3	SGP
	495.9	0.5	11.9	37.5	12.0	18.2	48.7	12.1	29.9	85.2	THA
	680	92	175	286	-14	-65	-144	79	104	141	
	575.0	86.1	158.2	270.8	-18.3	-64.7	-147.9	69.3	88.2	121.9	AUS
	91.2	6.0	12.7	12.9	4.0	3.1	4.9	9.5	15.4	17.6	NZL
	13.4	0.0	4.6	2.7	0.6	-3.7	-0.9	0.6	0.9	1.8	PNG
	12,005	1,689	1,925	2,048	278	284	601	1,943	2,137	2,628	
	959.0	207.7	273.8	402.0	-11.0	-59.4	-134.0	194.2	209.4	272.7	CAN
	11,046	1,481.4	1,650.9	1,646.1	288.6	343.4	734.8	1,748.6	1,928.1	2,355.6	USA
	1,310.6	167.2	210.7	276.4	-49.9	-63.1	-57.1	116.3	146.3	217.5	
	174.4	7.0	7.8	9.3	4.1	7.0	21.3	11.0	14.3	30.0	CHL
	986.0	149.0	194.8	259.0	-51.0	-69.5	-81.2	97.2	124.5	176.4	MEX
	150.3	11.1	8.2	8.1	-3.0	-0.6	2.8	8.2	7.5	11.1	PER
	1,380.8	0.0	0.0	1,184.7	0.0	0.0	-531.2	0.0	0.0	646.7	RUS
	227.1	0.0	5.8	46.5	0.0	-0.2	-18.2	0.0	5.4	28.7	VNM

Energy Indicators

=66x48+0+0

=66x48+0+162

Energy Indicators

	Total Final Energy Consumption			Final Consumption of Electricity			Total Primary Energy Supply	
	Mtoe			TWh			toe / Person	
	1980	1990	2005	1980	1990	2005	1980	1990
APEC 19	2,405	2,621	3,712	3,507	5,004	8,705	1.71	1.82
APEC 21	2,405	2,625	4,154	3,507	5,010	9,401	1.54	1.65
East Asia	627.0	896.6	1,479.9	879.9	1,543.4	3,587.9	0.73	0.93
China	318.2	489.9	904.6	287.4	606.4	1,974.5	0.43	0.58
Hong Kong, China	3.5	6.7	10.4	10.9	23.8	40.1	1.05	1.87
Japan	252.7	305.1	354.7	511.9	744.8	1,021.6	3.02	3.50
Republic of Korea	35.7	65.1	145.9	32.7	94.4	357.1	1.01	2.18
Chinese Taipei	17.0	29.8	64.3	36.9	74.0	194.6	1.41	2.26
Southeast Asia	48.1	85.3	200.4	50.5	123.2	391.5	0.28	0.42
Brunei Darussalam	0.2	0.4	0.8	0.3	1.0	3.1	16.81	8.06
Indonesia	21.1	34.0	74.7	7.3	30.5	107.0	0.21	0.30
Malaysia	6.4	13.1	37.5	8.7	19.9	80.7	0.77	1.18
Philippines	9.0	10.3	17.7	15.0	19.3	45.5	0.26	0.28
Singapore	2.1	5.3	14.7	6.1	14.2	34.4	0.82	3.25
Thailand	9.3	22.2	54.9	13.1	38.3	120.8	0.26	0.55
Oceania	59.3	68.0	90.4	101.6	158.7	247.1	3.77	4.24
Australia	51.5	58.0	76.5	81.0	129.2	206.5	4.72	5.17
New Zealand	7.3	9.4	12.7	19.4	27.8	37.1	3.05	4.47
Papua New Guinea	0.4	0.6	1.2	1.2	1.7	3.6	0.19	0.21
North America	1,591.0	1,465.6	1,802.1	2,404.6	3,051.6	4,231.1	7.72	7.71
Canada	156.7	160.0	200.9	307.4	418.0	510.8	7.90	7.54
United States of America	1,434.3	1,305.6	1,601.2	2,097.2	2,633.6	3,720.3	7.70	7.72
Latin America	79.6	105.6	138.9	70.7	127.4	247.7	1.21	1.24
Chile	8.3	11.0	21.8	9.7	15.4	48.3	0.98	1.08
Mexico	65.1	88.4	108.1	52.3	100.2	177.3	1.44	1.50
Peru	6.2	6.2	9.0	8.7	11.8	22.1	0.47	0.35
Russia	0.0	0.0	420.0	0.0	0.0	650.0	0.00	0.00
Viet Nam	0.0	4.2	22.4	0.0	6.2	45.6	0.00	0.08

=66x48+231+0

=66x48+231+162

	Total Primary Energy Supply per Real GDP				Total Primary Energy Supply per Real GDP			Total Final Energy Consumption per Capita			
	toe / Million 2000 USD				toe / Million 2000 PPP			toe / Person			
	2005	1980	1990	2005	1980	1990	2005	1980	1990	2005	
	2.37	-	271.3	260.9	295.4	242.2	195.3	1.3	1.3	1.5	
	2.43	-	0.3	286.5	297.9	222.4	207.2	1.2	1.2	1.6	
	1.59	260.6	242.0	297.2	268.3	220.3	179.3	0.5	0.7	1.0	
	1.18	2,301.3	1,471.0	817.3	554.6	354.5	197.0	0.3	0.4	0.7	CHN
	2.56	90.7	98.2	85.4	87.7	94.9	82.5	0.7	1.2	1.5	HKG
	4.06	126.2	105.2	104.0	177.3	147.8	146.1	2.2	2.5	2.8	JPN
	4.44	312.0	329.3	335.9	210.3	222.0	226.4	0.9	1.5	3.0	KOR
	4.70	334.0	284.2	299.6	452.1	463.6	434.6	1.0	1.5	2.8	TWN
	0.85	-	392.8	492.0	118.9	130.4	170.1	0.2	0.3	0.5	
	6.21	-	430.7	349.2	-	430.7	349.2	1.2	1.6	2.1	BRN
	0.59	528.2	487.9	630.4	145.5	134.4	173.7	0.1	0.2	0.3	IDN
	2.44	414.9	461.3	548.9	190.1	211.4	251.6	0.5	0.7	1.5	MYS
	0.39	261.5	308.0	339.1	65.0	76.6	84.3	0.2	0.2	0.2	PHL
	6.29	90.4	221.3	243.4	88.5	216.8	238.4	0.9	1.7	3.4	SGP
	1.33	324.7	377.3	543.8	102.7	119.3	171.9	0.2	0.4	0.9	THA
	4.66	326.1	323.8	264.2	255.4	254.7	207.9	2.8	2.8	3.0	
	6.00	332.2	314.3	260.3	270.6	256.0	212.0	3.5	3.4	3.8	AUS
	4.30	287.3	386.9	281.1	197.7	266.1	193.4	2.3	2.7	3.1	NZL
	0.30	326.6	395.1	472.0	92.0	111.3	133.0	0.1	0.1	0.2	PNG
	8.00	350.9	281.6	221.7	346.2	278.0	218.9	6.3	5.3	5.5	
	8.44	475.9	391.0	336.9	401.7	330.0	284.4	6.4	5.8	6.2	CAN
	7.95	341.0	273.3	213.2	341.0	273.3	213.2	6.3	5.2	5.4	USA
	1.48	281.9	298.7	273.6	171.6	183.1	165.9	0.8	0.9	0.9	
	1.84	392.6	352.5	321.6	209.9	188.4	171.9	0.7	0.8	1.3	CHL
	1.71	281.2	301.3	277.2	181.4	194.4	178.9	1.0	1.1	1.0	MEX
	0.40	209.2	208.7	170.1	91.1	90.8	74.0	0.4	0.3	0.3	PER
	4.52	-	0.0	1,848.5	-	0.0	468.4	0.0	0.0	2.9	RUS
	0.34	-	0.4	640.9	-	0.1	126.2	0.0	0.1	0.3	VNM

Energy Indicators

=66x48+0+0

=66x48+0+162

Energy Indicators

	Energy Related CO ₂ Emission			CO ₂ Emission per Capita		
	Mt-C			t-C / Person		
	1980	1990	2005	1980	1990	2005
APEC 19	-	-	4,184	-	-	1.733
APEC 21	-	-	4,622	-	-	1.750
East Asia	661.2	946.6	1,952.9	0.570	0.713	1.293
China	354.4	554.2	1,423.1	0.361	0.488	1.091
Hong Kong, China	4.0	9.2	10.4	0.789	1.616	1.498
Japan	251.5	287.2	332.3	2.154	2.325	2.600
Republic of Korea	32.8	65.4	115.5	0.861	1.525	2.391
Chinese Taipei	18.4	30.6	71.6	1.035	1.504	3.157
Southeast Asia	-	-	219.8	-	-	0.552
Brunei Darussalam	0.6	1.6	1.6	3.336	6.214	4.168
Indonesia	17.3	39.3	91.4	0.117	0.221	0.414
Malaysia	8.1	15.5	40.9	0.586	0.868	1.614
Philippines	8.2	9.7	19.1	0.171	0.159	0.229
Singapore	1.7	8.3	15.1	0.688	2.714	3.476
Thailand	-	-	51.8	-	-	0.806
Oceania	-	-	107.1	-	-	3.533
Australia	-	69.3	97.0	-	4.062	4.770
New Zealand	-	6.1	8.7	-	1.769	2.133
Papua New Guinea	-	-	1.4	-	-	0.236
North America	1,409.6	1,480.5	1,773.6	5.598	5.337	5.396
Canada	119.1	122.8	156.5	4.844	4.420	4.844
United States of America	1,290.5	1,357.7	1,617.2	5.679	5.439	5.456
Latin America	75.2	91.4	130.9	0.783	0.774	0.888
Chile	6.4	9.3	17.9	0.576	0.702	1.097
Mexico	63.0	76.8	104.9	0.932	0.923	1.017
Peru	5.7	5.4	8.1	0.332	0.248	0.291
Russia	-	-	414.3	-	-	2.895
Viet Nam	-	4,659	23.3	-	70.378	0.281

=66x48+231+0

=66x48+231+162

CO ₂ Emission per Real GDP			CO ₂ Emission per Real GDP			CO ₂ Emission per Total Primary Energy Supply			
kt-C / Billions of 2000 USD			kt-C / Billions of 2000 PPP			t-C / toe			
1980	1990	2005	1980	1990	2005	1980	1990	2005	
-	-	190.5	-	-	142.8	-	-	0.730	
-	-	206.8	-	-	149.7	-	-	0.722	
204.6	185.3	241.6	211.1	169.5	146.9	0.785	0.766	0.813	
1,937.5	1,246.6	753.0	466.9	300.4	181.5	0.842	0.847	0.921	CHN
68.5	85.0	50.0	66.2	82.2	48.3	0.755	0.866	0.586	HKG
90.0	69.9	66.6	126.5	98.1	93.5	0.713	0.664	0.640	JPN
267.1	230.6	181.0	180.0	155.4	122.0	0.856	0.700	0.539	KOR
245.4	189.2	201.3	332.1	308.6	291.9	0.735	0.666	0.672	TWN
-	-	318.4	-	-	110.1	-	-	0.647	
-	332.1	234.3	-	332.1	234.3	0.198	0.771	0.671	BRN
294.3	360.4	439.9	81.1	99.3	121.2	0.557	0.739	0.698	IDN
317.0	340.5	363.8	145.3	156.1	166.7	0.764	0.738	0.663	MYS
172.3	173.0	201.9	42.8	43.0	50.2	0.659	0.562	0.595	PHL
75.9	185.0	134.5	74.4	181.2	131.7	0.840	0.836	0.553	SGP
-	-	330.2	-	-	104.4	-	-	0.607	THA
-	-	200.2	-	-	157.6	-	-	0.758	
-	247.1	207.0	-	201.2	168.6	-	0.786	0.795	AUS
-	153.1	139.5	-	105.3	95.9	-	0.396	0.496	NZL
-	-	368.0	-	-	103.7	-	-	0.780	PNG
254.6	195.0	149.6	251.2	192.5	147.7	0.726	0.693	0.675	
291.9	229.3	193.3	246.4	193.6	163.1	0.613	0.587	0.574	CAN
251.6	192.4	146.4	251.6	192.4	146.4	0.738	0.704	0.687	USA
182.2	186.7	164.7	110.9	114.4	99.9	0.646	0.625	0.602	
230.3	228.8	191.9	123.1	122.3	102.6	0.587	0.649	0.597	CHL
182.3	185.8	164.8	117.6	119.9	106.4	0.648	0.617	0.595	MEX
146.9	149.3	124.5	64.0	65.0	54.2	0.702	0.715	0.732	PER
-	-	1,184.1	-	-	300.0	-	-	0.641	RUS
-	310.2	521.7	-	61.1	102.7	-	53.4	0.814	VNM

Energy Indicators

Glossary

General note

For editing convenience the definition for some items with “++” mark are different with the publication of APEC Energy Statistics. In the Energy Balance sector the definition for all item are the same as the publication of APEC Energy Statistics.

Energies

Coal++

Defined as coal in narrow sense (all primary coal such as hard coal, lignite and brown coal) plus coal products (all fuels derived from coal including patent fuel, coke oven coke, gas coke, briquettes, coke oven gas and blast furnace gas).

Coal

Coal includes all primary coal, such as hard coal, lignite and brown coal.

Coal Products

Coal Products includes all fuels derived from coal including patent fuel, coke oven coke, gas coke, briquettes, coke oven gas, blast furnace gas and gas works gas.

Oil

Defined as crude oil (which comprises crude oil, refinery feedstocks and natural gas liquids and Natural LPG) plus petroleum products.

Crude Oil

Crude Oil comprises crude oil, refinery feedstocks and natural gas liquids.

Petroleum Products

Total of all petroleum products, such as LPG, naphtha, MOGAS(including AVGAS), jet fuel, kerosene, diesel oil, fuel oil, refinery gas and other petroleum products.

Mogas

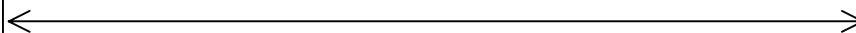
Mogas is light hydrocarbon oil for use in internal engines such as motor vehicles. Motor gasoline is distilled between 35 °C and 215 °C and treated by reforming, catalytic cracking or blending with aromatic fraction to reach a sufficiently high octane number (≥80 RON).

Naphtha

Naphtha includes light or medium oils, a cut covering the end of the motor spirit and the beginning of the kerosene range. Naphtha distills between 30 °C and 210 °C.

Jet Fuel

Jet fuel comprises both gasoline and kerosene type jet fuels meeting



specifications for use in aviation turbine power units.

Gasoline type: This includes all light hydrocarbon oils, distilling between 100 °C and 250 °C. It distills at least 20 percent in volume at 143 °C.

Kerosene type: This medium oil with same distillation characteristics and flash point as kerosene, with a maximum aromatic content of 22 percent in volume, and treated to give a kinematic viscosity of less than 18cST at -20 °C (and a freezing point below -47 °C), octane number varying from 80 to 145 RON.

Kerosene

Kerosene comprises refined petroleum distillate intermediate in volatility between gasoline and gas/diesel oil. It is a medium oil distilling between 150 °C and 300 °C, which distills at least 65 percent in volume at 250 °C. Its specific gravity is in the region of 0.80 and the flash point is above 38 °C.

Diesel Oil

Diesel oil includes heavy gas oils. Gas oils are obtained from the lowest fraction from atmospheric distillation of crude oil, while heavy gas oils obtained by vacuum redistillation of the residual from atmospheric distillation.

Fuel Oil

Fuel oil defines oils that make up the distillation residue. It comprises all residual fuel oils (including those obtained by blending). Its kinematic viscosity is above 10 cSt at 80 °C. The flash point is always above 50 °C, and the density is always more than 0.90.

LPG

LPG is the light hydrocarbon fraction of the paraffin series, derived from refinery processes and from crude oil stabilization plants comprising propane (C₃H₈) and butane (C₄H₁₀) or a mixture of these two hydrocarbon.

Others

The category, "Other petroleum products", groups together white spirit and SBP, lubricants, bitumen, paraffin waxes, refining gas and others (tar, sulfur, grease).

Gas++

Defined as natural gas and LNG.

Natural Gas

Natural gas consists mainly of methane occurring naturally in underground deposits associated with crude oil or gas recovered from coal mines (colliery gas). Sewage gas is also included.

LNG

LNG is liquefied natural gas.

Glossary

Hydro

The primary equivalent is calculated with an efficiency of 100%.

Nuclear

The primary equivalent is calculated with an efficiency of 33%.

Others

Defined as sum of geothermal power, wind, tide, photovoltaic power, etc.

The primary equivalent is calculated with an efficiency of 100% except for of geothermal power, which assumed efficiency is 10%.

Sectors

Indigenous Production

Quantities of fuels extracted within the economy.

Net Imports

Defined as imports minus exports.

Total Primary Energy Supply (TPES)

Defined as indigenous production plus imports minus exports minus international marine bunkers plus or minus stock change.

Refining

Petroleum refineries shows the transformation of crude oil, NGL and condensate to petroleum products. The production of synthetic petrol from natural gas is also included.

Power Generation

Gross electricity (including power stations' own use) produced from thermal, hydro, nuclear, geothermal and other power plants of public utilities and auto-producers. An auto-producer is an establishment which, in addition to its main activities, generates electricity wholly or partially for its own use, such as industries, railways, refineries, etc.

Total Final Energy Consumption

Defined as industry plus transport plus residential and commercial plus others sector.

Industry

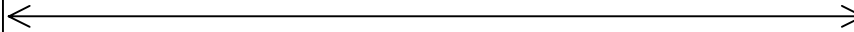
Consumption of the industry sector is specified in the following sub-sectors (energy use for transport by industry is not included here but reported under transport):

- Iron and steel industry
- Chemical industry
- Non-ferrous metals basic industries
- Non-metallic mineral products such as glass, ceramic, cement, etc.
- Transport equipment
- Machinery. Fabricated metal products, machinery and equipment other

=66x48+0+0

=66x48+0+162

114



- than transport equipment
- Mining (excluding fuels) and quarrying
- Food processing, beverages and tobacco
- Pulp, paper and printing
- Wood and wood products (other than pulp and paper)
- Construction
- Textiles and leather
- Collection, purification and distribution of water
- Non-specified (any manufacturing industry not included above)

Transport

Consumption of the transport sector covers all transport activity regardless of the economic sector to which it is contributing, and is divided into the following sub-sectors:

- Air transport (international and domestic)
- Road transport
- Railways
- Internal navigation (including small craft and coastal vessels not purchasing their bunker requirements under international marine bunker contracts).

Residential and Commercial

Defined as residential plus commercial.

*Residential shows all consumption by households

*Commercial shows consumption of the commercial and public sectors.

Others

Agriculture and non-energy use sectors are included.

Glossary

=66x48+231+0

=66x48+231+162