



Asia-Pacific  
Economic Cooperation

# APEC

## ENERGY HANDBOOK 2009

ENERGY WORKING GROUP  
OCTOBER 2011

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



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APEC#211-RE-03.1 ISSN 0219-7634

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## Preface

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The APEC Energy Handbook 2009 is a handy, pocket-sized summary of key energy data and a supplement to APEC Energy Statistics 2009 which has been released in October 2011 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 of commercial energy by Sectors and by 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 November 2009. 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.

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## Regional Coverage

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

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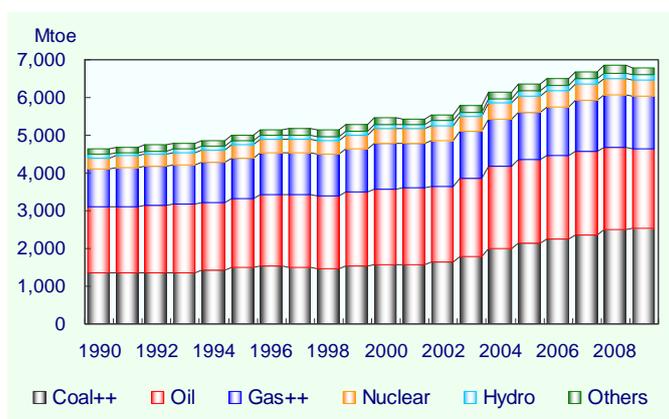
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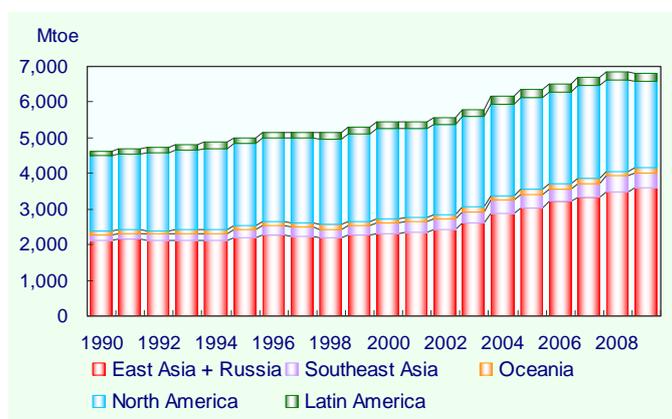
## Total Primary Energy Supply by Energy APEC 21



	Mtoe					
	1990	1995	2000	2005	2008	2009
Coal++	1,359.9	1,485.6	1,571.0	2,150.1	2,495.4	2,519.3
Oil	1,751.6	1,821.1	2,012.0	2,205.3	2,178.7	2,121.2
Gas++	998.5	1,085.8	1,197.5	1,266.8	1,400.1	1,382.4
Nuclear	283.1	344.5	389.0	415.9	421.3	424.5
Hydro	94.7	111.1	111.1	128.5	144.7	148.3
Others	146.6	157.2	172.7	186.4	203.3	197.1
<b>Total</b>	<b>4,634.4</b>	<b>5,005.3</b>	<b>5,453.4</b>	<b>6,352.9</b>	<b>6,843.4</b>	<b>6,792.7</b>

	Share (%)					
	1990	1995	2000	2005	2008	2009
Coal++	29.3	29.7	28.8	33.8	36.5	37.1
Oil	37.8	36.4	36.9	34.7	31.8	31.2
Gas++	21.5	21.7	22.0	19.9	20.5	20.4
Nuclear	6.1	6.9	7.1	6.5	6.2	6.2
Hydro	2.0	2.2	2.0	2.0	2.1	2.2
Others	3.2	3.1	3.2	2.9	3.0	2.9

## Total Primary Energy Supply by Region APEC 21

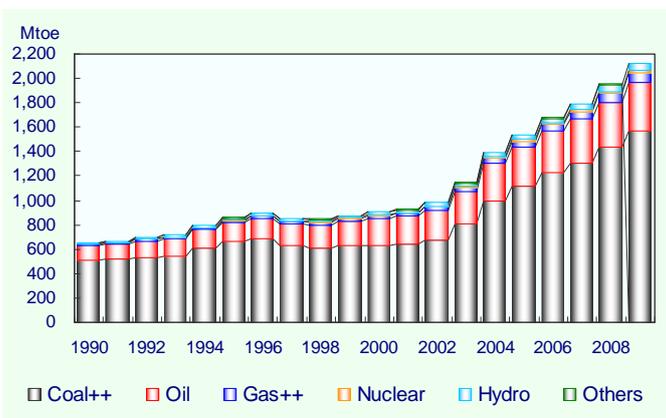


	Mtoe					
	1990	1995	2000	2005	2008	2009
East Asia + Russia	2,116.1	2,208.5	2,322.9	3,045.6	3,497.2	3,580.0
Southeast Asia	147.8	225.0	290.0	359.7	421.8	424.1
Oceania	101.7	109.5	126.7	135.2	146.0	147.9
North America	2,125.1	2,304.3	2,531.8	2,602.3	2,555.1	2,425.9
Latin America	143.6	158.0	181.8	210.1	223.2	214.8
<b>APEC 21</b>	<b>4,634.4</b>	<b>5,005.3</b>	<b>5,453.4</b>	<b>6,352.9</b>	<b>6,843.4</b>	<b>6,792.7</b>

	Share (%)					
	1990	1995	2000	2005	2008	2009
East Asia + Russia	45.7	44.1	42.6	47.9	51.1	52.7
Southeast Asia	3.2	4.5	5.3	5.7	6.2	6.2
Oceania	2.2	2.2	2.3	2.1	2.1	2.2
North America	45.9	46.0	46.4	41.0	37.3	35.7
Latin America	3.1	3.2	3.3	3.3	3.3	3.2

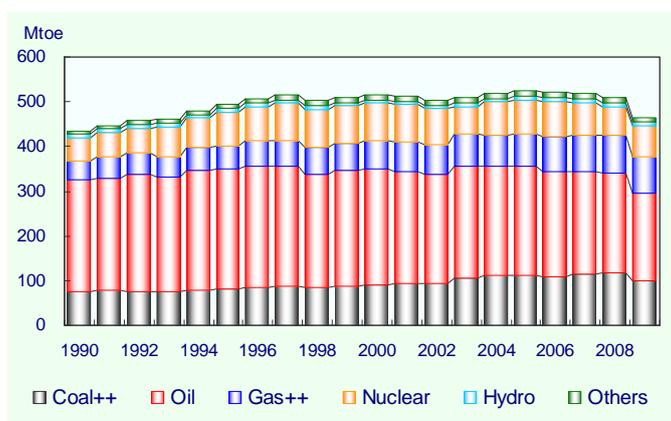
### Total Primary Energy Supply by Energy China



	Mtoe					
	1990	1995	2000	2005	2008	2009
Coal++	512.2	659.2	631.2	1,122.1	1,431.8	1,568.8
Oil	114.4	158.5	224.7	319.1	370.2	395.3
Gas++	14.2	16.7	22.4	44.7	76.0	83.5
Nuclear	-	3.3	4.4	13.8	17.8	18.3
Hydro	10.9	16.4	19.1	34.1	50.3	52.9
Others	2.3	3.8	3.4	5.5	5.8	-1.0
<b>Total</b>	<b>654.0</b>	<b>858.0</b>	<b>905.2</b>	<b>1,539.4</b>	<b>1,952.0</b>	<b>2,117.8</b>

	Share (%)					
	1990	1995	2000	2005	2008	2009
Coal++	78.3	76.8	69.7	72.9	73.3	74.1
Oil	17.5	18.5	24.8	20.7	19.0	18.7
Gas++	2.2	1.9	2.5	2.9	3.9	3.9
Nuclear	-	0.4	0.5	0.9	0.9	0.9
Hydro	1.7	1.9	2.1	2.2	2.6	2.5
Others	0.3	0.4	0.4	0.4	0.3	-0.0

## Total Primary Energy Supply by Energy Japan

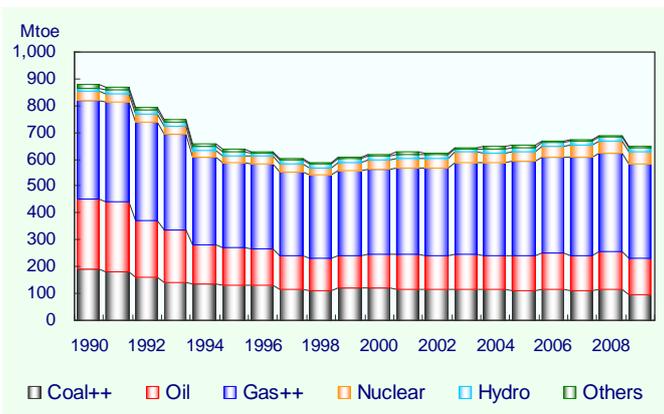


						Mtoe
	1990	1995	2000	2005	2008	2009
Coal++	75.4	82.9	91.8	112.7	117.0	98.7
Oil	249.0	267.4	256.5	244.3	222.4	198.3
Gas++	43.5	52.0	64.9	70.9	84.8	79.1
Nuclear	50.7	74.8	83.2	76.4	65.6	71.6
Hydro	8.2	7.7	8.1	7.5	7.0	7.1
Others	8.2	9.8	11.2	11.6	11.4	10.6
<b>Total</b>	<b>435.1</b>	<b>494.5</b>	<b>515.6</b>	<b>523.5</b>	<b>508.2</b>	<b>465.3</b>

						Share (%)
	1990	1995	2000	2005	2008	2009
Coal++	17.3	16.8	17.8	21.5	23.0	21.2
Oil	57.2	54.1	49.7	46.7	43.8	42.6
Gas++	10.0	10.5	12.6	13.5	16.7	17.0
Nuclear	11.7	15.1	16.1	14.6	12.9	15.4
Hydro	1.9	1.6	1.6	1.4	1.4	1.5
Others	1.9	2.0	2.2	2.2	2.2	2.3

Primary Energy Supply

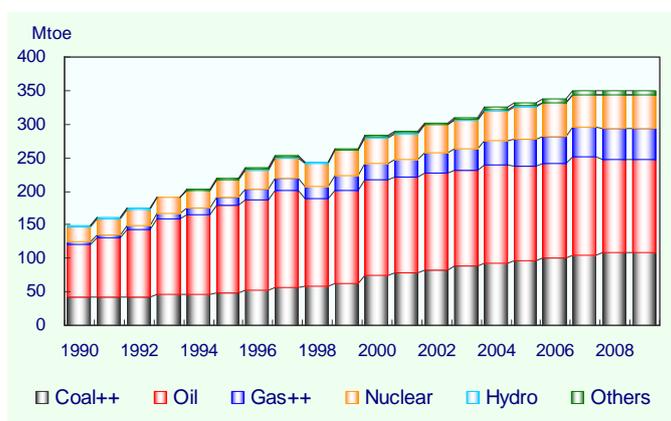
## Total Primary Energy Supply by Energy Russia



	1980	1990	2000	2005	2008	Mtoe 2009
Coal++	-	191.1	120.0	112.6	117.1	95.3
Oil	-	262.7	126.1	129.2	141.4	138.0
Gas++	-	367.4	319.0	349.7	366.3	350.4
Nuclear	-	30.9	34.1	39.0	42.5	42.7
Hydro	-	14.3	14.2	15.0	14.3	15.1
Others	-	11.5	5.7	6.2	5.1	5.5
<b>Total</b>	-	<b>877.8</b>	<b>619.2</b>	<b>651.7</b>	<b>686.8</b>	<b>646.9</b>

	1980	1990	2000	2005	2008	Share (%) 2009
Coal++	-	21.8	19.4	17.3	17.0	14.7
Oil	-	29.9	20.4	19.8	20.6	21.3
Gas++	-	41.9	51.5	53.7	53.3	54.2
Nuclear	-	3.5	5.5	6.0	6.2	6.6
Hydro	-	1.6	2.3	2.3	2.1	2.3
Others	-	1.3	0.9	1.0	0.7	0.8

## Total Primary Energy Supply by Energy Other East Asia

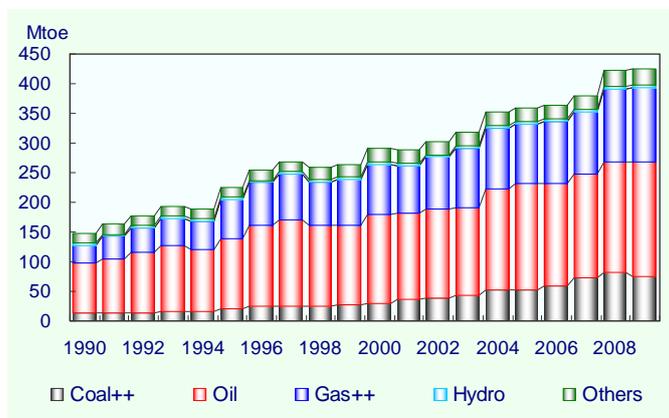


	Mtoe					
	1990	1995	2000	2005	2008	2009
Coal++	42.1	48.4	73.6	95.6	108.3	108.9
Oil	78.4	129.6	142.9	141.3	138.5	139.2
Gas++	4.5	12.0	24.6	39.9	46.4	45.5
Nuclear	22.3	26.7	38.4	48.7	50.0	49.3
Hydro	1.3	1.2	1.2	1.1	1.2	1.2
Others	0.6	1.5	2.2	4.4	5.9	5.9
<b>Total</b>	<b>149.2</b>	<b>219.4</b>	<b>283.0</b>	<b>331.1</b>	<b>350.3</b>	<b>350.0</b>

	Share (%)					
	1990	1995	2000	2005	2008	2009
Coal++	28.2	22.1	26.0	28.9	30.9	31.1
Oil	52.6	59.1	50.5	42.7	39.5	39.8
Gas++	3.0	5.5	8.7	12.1	13.2	13.0
Nuclear	15.0	12.2	13.6	14.7	14.3	14.1
Hydro	0.8	0.6	0.4	0.3	0.3	0.3
Others	0.4	0.7	0.8	1.3	1.7	1.7

Primary Energy Supply

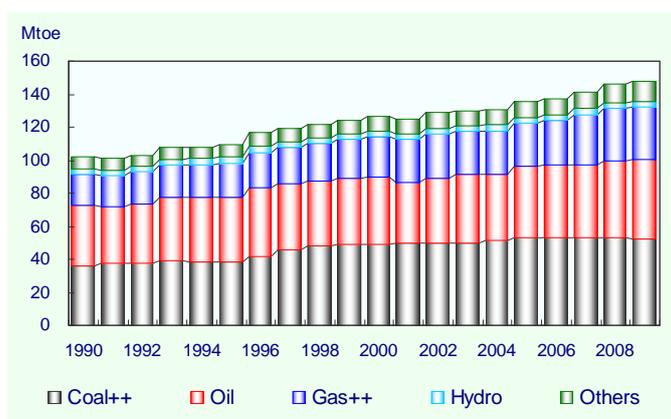
### Total Primary Energy Supply by Energy Southeast Asia



	Mtoe					
	1990	1995	2000	2005	2008	2009
Coal++	12.8	20.2	30.0	53.4	81.9	74.2
Oil	84.1	118.3	148.8	178.1	187.3	194.0
Gas++	31.4	66.1	84.5	101.1	121.8	124.5
Nuclear	-	-	-	-	-	-
Hydro	2.7	3.7	3.9	4.1	5.3	5.6
Others	16.8	16.7	22.8	23.1	25.5	25.8
<b>Total</b>	<b>147.8</b>	<b>225.0</b>	<b>290.0</b>	<b>359.7</b>	<b>421.8</b>	<b>424.1</b>

	Share (%)					
	1990	1995	2000	2005	2008	2009
Coal++	8.7	9.0	10.3	14.8	19.4	17.5
Oil	56.9	52.6	51.3	49.5	44.4	45.8
Gas++	21.3	29.4	29.1	28.1	28.9	29.4
Nuclear	-	-	-	-	-	-
Hydro	1.8	1.6	1.3	1.2	1.3	1.3
Others	11.4	7.4	7.9	6.4	6.0	6.1

## Total Primary Energy Supply by Energy Oceania

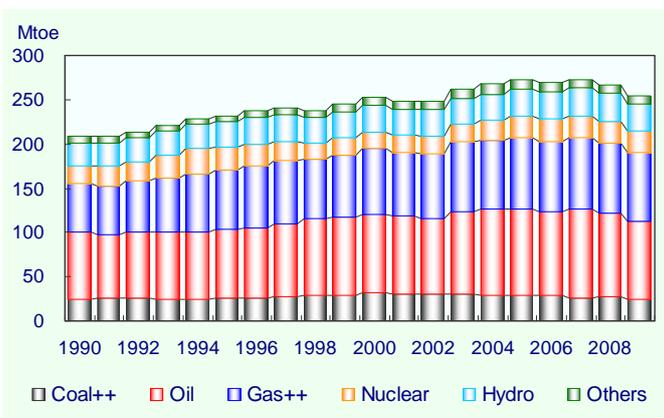


	Mtoe					
	1990	1995	2000	2005	2008	2009
Coal++	36.2	38.7	49.2	53.0	52.7	52.4
Oil	36.2	38.7	40.7	43.0	47.1	48.0
Gas++	19.3	20.9	24.3	26.4	31.5	32.1
Nuclear	-	-	-	-	-	-
Hydro	3.3	3.8	3.6	3.4	3.0	3.2
Others	6.7	7.3	8.9	9.4	11.7	12.2
<b>Total</b>	<b>101.7</b>	<b>109.5</b>	<b>126.7</b>	<b>135.2</b>	<b>146.0</b>	<b>147.9</b>

	Share (%)					
	1990	1995	2000	2005	2008	2009
Coal++	35.6	35.3	38.8	39.2	36.1	35.4
Oil	35.6	35.4	32.2	31.8	32.3	32.4
Gas++	19.0	19.1	19.2	19.5	21.6	21.7
Nuclear	-	-	-	-	-	-
Hydro	3.3	3.5	2.9	2.5	2.1	2.2
Others	6.6	6.7	7.0	7.0	8.0	8.3

Primary Energy Supply

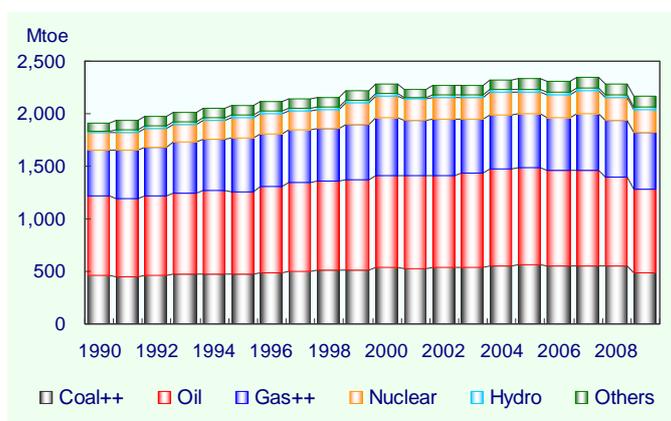
## Total Primary Energy Supply by Energy Canada



	Mtoe					
	1990	1995	2000	2005	2008	2009
Coal++	24.3	25.3	31.7	28.8	27.8	23.8
Oil	76.9	78.2	88.3	97.9	94.8	88.5
Gas++	54.7	67.1	74.3	80.6	78.3	78.7
Nuclear	19.0	25.5	19.0	24.0	24.5	23.6
Hydro	25.5	28.9	30.8	31.3	32.2	31.3
Others	8.1	6.7	8.6	10.2	9.6	8.9
<b>Total</b>	<b>208.6</b>	<b>231.8</b>	<b>252.6</b>	<b>272.8</b>	<b>267.1</b>	<b>254.7</b>

	Share (%)					
	1990	1995	2000	2005	2008	2009
Coal++	11.6	10.9	12.5	10.6	10.4	9.4
Oil	36.8	33.7	34.9	35.9	35.5	34.7
Gas++	26.2	29.0	29.4	29.6	29.3	30.9
Nuclear	9.1	11.0	7.5	8.8	9.2	9.3
Hydro	12.2	12.5	12.2	11.5	12.1	12.3
Others	3.9	2.9	3.4	3.7	3.6	3.5

## Total Primary Energy Supply by Energy United States of America

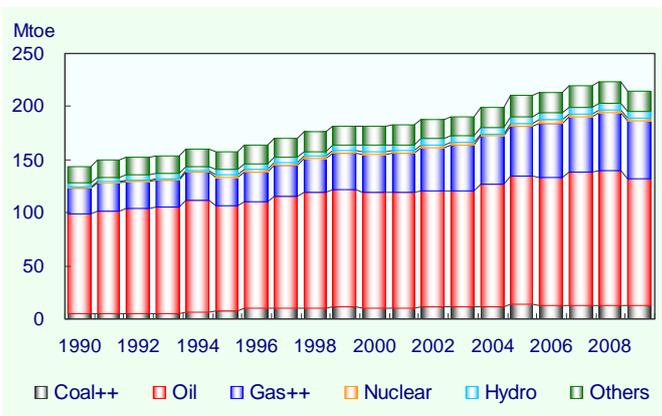


	Mtoe					
	1990	1995	2000	2005	2008	2009
Coal++	460.2	474.0	533.6	558.4	545.8	485.0
Oil	756.8	788.8	874.4	930.9	850.4	800.4
Gas++	438.4	507.4	547.9	507.2	540.9	534.4
Nuclear	159.4	186.0	207.9	211.3	218.3	216.4
Hydro	24.9	29.1	24.1	25.6	24.3	25.7
Others	76.9	87.4	91.4	96.2	108.3	109.5
<b>Total</b>	<b>1,916.5</b>	<b>2,072.6</b>	<b>2,279.2</b>	<b>2,329.5</b>	<b>2,288.0</b>	<b>2,171.2</b>

	Share (%)					
	1990	1995	2000	2005	2008	2009
Coal++	24.0	22.9	23.4	24.0	23.9	22.3
Oil	39.5	38.1	38.4	40.0	37.2	36.9
Gas++	22.9	24.5	24.0	21.8	23.6	24.6
Nuclear	8.3	9.0	9.1	9.1	9.5	10.0
Hydro	1.3	1.4	1.1	1.1	1.1	1.2
Others	4.0	4.2	4.0	4.1	4.7	5.0

Primary Energy Supply

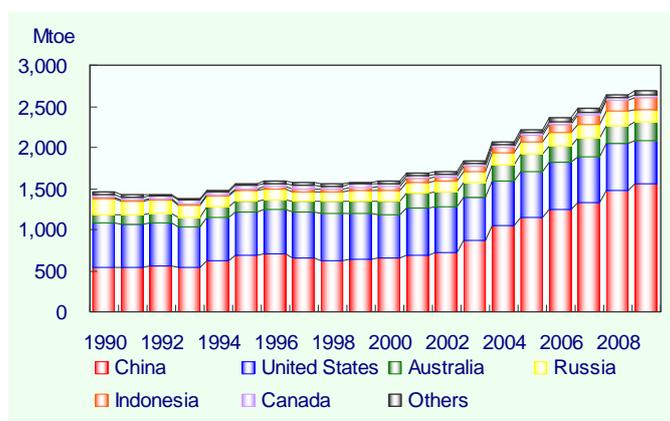
### Total Primary Energy Supply by Energy Latin America



	Mtoe					
	1990	1995	2000	2005	2008	2009
Coal++	5.7	7.9	9.9	13.4	13.0	12.2
Oil	93.0	98.8	109.6	121.5	126.5	119.6
Gas++	25.0	26.9	35.7	46.3	54.1	54.3
Nuclear	0.8	2.2	2.1	2.8	2.6	2.7
Hydro	3.7	5.1	5.9	6.2	7.1	6.2
Others	15.5	17.1	18.5	19.9	20.0	19.8
<b>Total</b>	<b>143.6</b>	<b>158.0</b>	<b>181.8</b>	<b>210.1</b>	<b>223.2</b>	<b>214.8</b>

	Share (%)					
	1990	1995	2000	2005	2008	2009
Coal++	3.9	5.0	5.5	6.4	5.8	5.7
Oil	64.7	62.6	60.3	57.8	56.7	55.7
Gas++	17.4	17.0	19.6	22.0	24.2	25.3
Nuclear	0.5	1.4	1.2	1.3	1.1	1.3
Hydro	2.5	3.2	3.3	3.0	3.2	2.9
Others	10.8	10.8	10.2	9.5	8.9	9.2

## Indigenous Production of Coal APEC 21



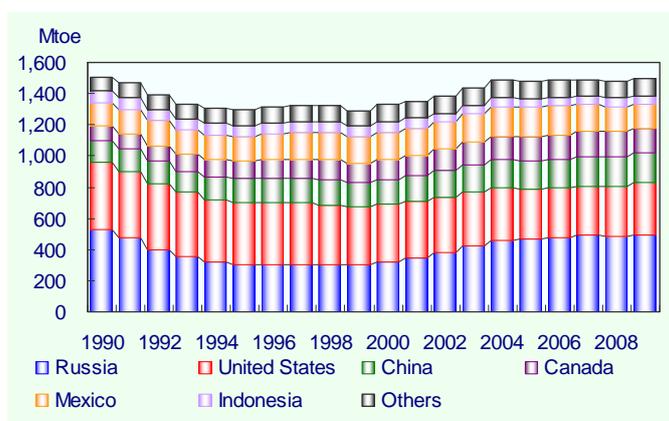
	1990	1995	2000	2005	2008	Mtoe 2009
China	540.0	680.4	649.6	1,143.3	1,471.7	1,557.3
United States	542.3	529.8	536.9	565.3	579.3	530.1
Australia	106.1	127.8	164.6	202.0	217.4	222.2
Russia	192.4	130.7	128.5	157.4	167.2	153.6
Indonesia	5.8	24.0	44.0	82.8	134.7	150.8
Canada	37.9	40.8	34.4	31.9	34.4	31.5
Others	27.0	24.4	25.8	35.7	40.2	43.3
<b>APEC 21</b>	<b>1,451.5</b>	<b>1,557.9</b>	<b>1,583.8</b>	<b>2,218.3</b>	<b>2,644.9</b>	<b>2,688.8</b>

	1990	1995	2000	2005	2008	Share (%) 2009
China	37.2	43.7	41.0	51.5	55.6	57.9
United States	37.4	34.0	33.9	25.5	21.9	19.7
Australia	7.3	8.2	10.4	9.1	8.2	8.3
Russia	13.3	8.4	8.1	7.1	6.3	5.7
Indonesia	0.4	1.5	2.8	3.7	5.1	5.6
Canada	2.6	2.6	2.2	1.4	1.3	1.2
Others	1.9	1.6	1.6	1.6	1.5	1.6

Coal: Hard Coal, Anthracite and Lignite

## Indigenous Production of Crude Oil APEC 21

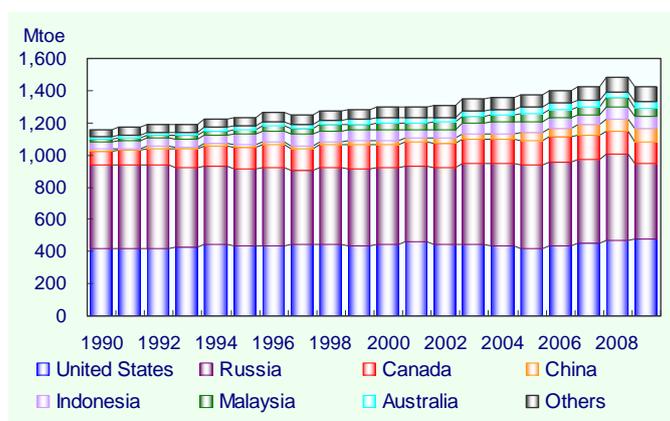


	1990	1995	2000	2005	2008	Mtoe 2009
Russia	526.3	306.6	323.3	468.7	488.5	493.6
United States	432.5	397.9	365.6	322.5	312.9	337.2
China	138.4	150.0	163.0	181.4	195.1	189.5
Canada	94.5	113.9	128.9	148.0	158.3	156.9
Mexico	152.8	155.3	171.1	197.2	163.1	151.8
Indonesia	70.7	72.9	69.0	48.1	55.3	53.3
Others	87.9	96.9	110.7	110.3	109.5	111.7
<b>APEC 21</b>	<b>1,503.1</b>	<b>1,293.5</b>	<b>1,331.6</b>	<b>1,476.3</b>	<b>1,482.7</b>	<b>1,494.1</b>

	1990	1995	2000	2005	2008	Share (%) 2009
Russia	35.0	23.7	24.3	31.7	32.9	33.0
United States	28.8	30.8	27.5	21.8	21.1	22.6
China	9.2	11.6	12.2	12.3	13.2	12.7
Canada	6.3	8.8	9.7	10.0	10.7	10.5
Mexico	10.2	12.0	12.9	13.4	11.0	10.2
Indonesia	4.7	5.6	5.2	3.3	3.7	3.6
Others	5.8	7.5	8.3	7.5	7.4	7.5

Crude Oil includes NGL and condensate

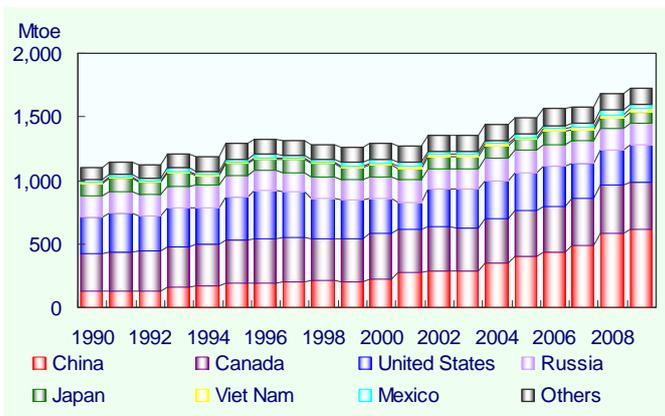
## Indigenous Production of Natural Gas APEC 21



	Mtoe					
	1990	1995	2000	2005	2008	2009
United States	418.2	434.6	446.9	421.6	469.8	478.7
Russia	516.8	480.6	470.7	515.8	534.8	469.7
Canada	88.6	130.3	148.4	154.1	145.0	135.3
China	14.2	16.7	25.3	47.4	74.8	79.4
Indonesia	41.0	68.0	65.8	68.7	72.6	77.0
Malaysia	15.5	26.7	44.8	52.0	57.0	47.6
Australia	17.7	25.3	28.4	35.2	39.4	41.2
Others	45.1	51.5	65.3	76.5	88.8	95.1
<b>APEC 21</b>	<b>1,157.1</b>	<b>1,233.6</b>	<b>1,295.7</b>	<b>1,371.3</b>	<b>1,482.2</b>	<b>1,424.0</b>

	Share (%)					
	1990	1995	2000	2005	2008	2009
United States	36.1	35.2	34.5	30.7	31.7	33.6
Russia	44.7	39.0	36.3	37.6	36.1	33.0
Canada	7.7	10.6	11.5	11.2	9.8	9.5
China	1.2	1.4	2.0	3.5	5.0	5.6
Malaysia	1.3	2.2	3.5	3.8	3.8	3.3
Indonesia	3.5	5.5	5.1	5.0	4.9	5.4
Australia	1.5	2.0	2.2	2.6	2.7	2.9
Others	3.9	4.2	5.0	5.6	6.0	6.7

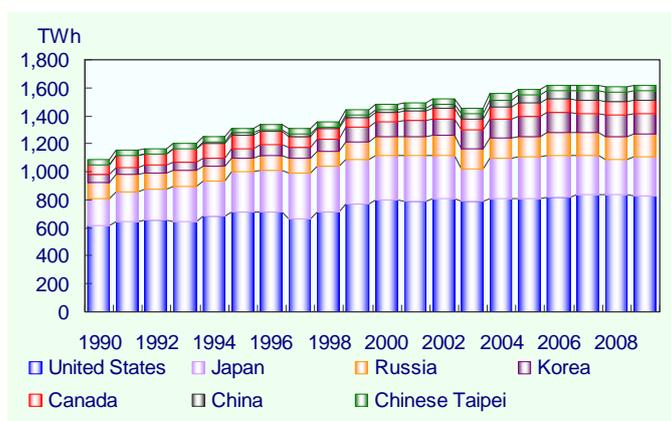
## Indigenous Production of Hydro Power APEC 21



	TWh					
	1990	1995	2000	2005	2008	2009
China	126.7	190.6	222.4	397.0	585.2	615.6
Canada	296.8	336.0	358.6	363.7	374.4	364.0
United States	289.0	337.9	280.0	297.9	282.0	298.4
Russia	165.9	176.4	165.4	174.6	166.7	176.1
Japan	95.6	90.0	94.2	87.1	81.6	82.4
Viet Nam	5.4	10.6	14.6	17.5	26.0	30.0
Mexico	23.5	27.5	33.1	27.7	39.2	26.7
Others	98.1	122.7	123.0	128.1	128.0	129.8
<b>APEC 20</b>	<b>1,101.0</b>	<b>1,291.7</b>	<b>1,291.3</b>	<b>1,493.6</b>	<b>1,683.1</b>	<b>1,723.1</b>

	Share (%)					
	1990	1995	2000	2005	2008	2009
China	11.5	14.8	17.2	26.6	34.8	35.7
Canada	27.0	26.0	27.8	24.4	22.2	21.1
United States	26.2	26.2	21.7	19.9	16.8	17.3
Russia	15.1	13.7	12.8	11.7	9.9	10.2
Japan	8.7	7.0	7.3	5.8	4.8	4.8
Viet Nam	0.5	0.8	1.1	1.2	1.5	1.7
Mexico	2.1	2.1	2.6	1.9	2.3	1.6
Others	8.9	9.5	9.5	8.6	7.6	7.5

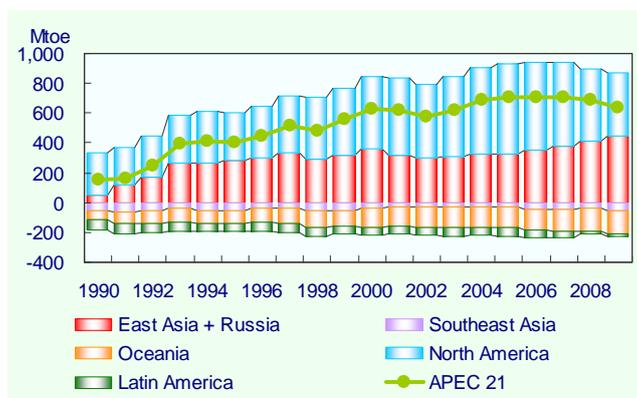
## Indigenous Production of Nuclear Power APEC 21



	TWh					
	1990	1995	2000	2005	2008	2009
United States	611.6	713.8	797.7	810.7	837.8	830.2
Japan	194.6	286.9	319.1	293.0	251.7	274.7
Russia	118.3	99.5	130.7	149.4	163.1	163.6
Korea	52.9	67.0	109.0	146.8	151.0	147.8
Canada	73.0	97.8	72.8	92.0	94.0	90.4
China	-	12.8	16.7	53.1	68.4	70.1
Chinese Taipei	32.9	35.3	38.5	40.0	40.8	41.6
Mexico	2.9	8.4	8.2	10.8	9.8	10.5
<b>APEC 21</b>	<b>1,086.1</b>	<b>1,321.7</b>	<b>1,492.8</b>	<b>1,595.9</b>	<b>1,616.6</b>	<b>1,628.8</b>

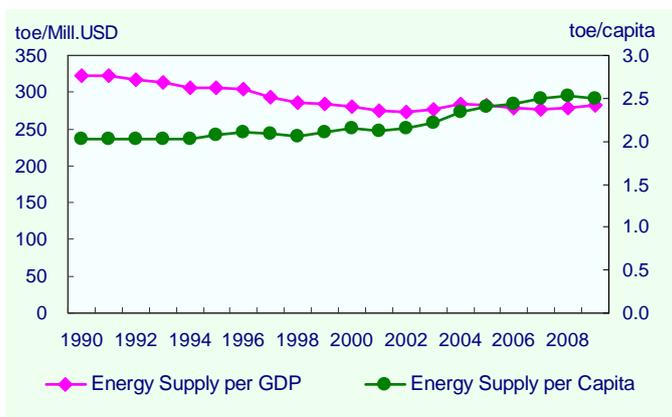
	Share (%)					
	1990	1995	2000	2005	2008	2009
United States	56.3	54.0	53.4	50.8	51.8	51.0
Japan	17.9	21.7	21.4	18.4	15.6	16.9
Russia	10.9	7.5	8.8	9.4	10.1	10.0
Korea	4.9	5.1	7.3	9.2	9.3	9.1
Canada	6.7	7.4	4.9	5.8	5.8	5.6
China	-	1.0	1.1	3.3	4.2	4.3
Chinese Taipei	3.0	2.7	2.6	2.5	2.5	2.6
Mexico	0.3	0.6	0.6	0.7	0.6	0.6

## Net Import by Region APEC 21



	Mtoe					
	1990	1995	2000	2005	2008	2009
Australia	-64.5	-89.2	-127.1	-147.8	-156.4	-162.9
Brunei Darussalam	-12.9	-14.6	-14.8	-19.3	-18.1	-17.0
Canada	-59.3	-119.7	-127.7	-133.9	-144.2	-141.5
Chile	7.0	11.2	18.3	21.0	22.3	20.9
China	-30.5	-8.9	32.4	137.4	193.0	282.0
Hong Kong, China	10.8	14.3	18.2	23.4	24.9	29.3
Indonesia	-65.9	-85.2	-82.4	-73.9	-115.1	-131.8
Japan	371.4	405.7	420.4	433.1	434.0	377.2
Korea	70.1	134.8	165.7	175.6	195.1	198.1
Malaysia	-25.4	-28.3	-27.4	-30.6	-17.6	-18.7
Mexico	-69.9	-68.9	-71.6	-80.3	-44.1	-39.8
New Zealand	2.1	3.1	3.4	4.9	3.0	3.4
Papua New Guinea	-3.7	-4.0	-2.7	-1.1	-0.5	-0.5
Peru	-0.6	1.8	3.3	2.8	3.4	2.4
Philippines	11.9	17.7	20.0	17.0	16.7	16.2
Russia	-412.6	-315.0	-349.6	-539.3	-536.6	-528.6
Singapore	22.9	31.9	40.2	50.9	59.6	63.0
Chinese Taipei	39.4	55.7	76.4	96.4	98.1	93.1
Thailand	18.2	32.6	34.6	48.2	48.2	49.7
United States	341.9	433.4	606.4	736.1	635.1	558.7
Viet Nam	-0.2	-4.7	-9.8	-17.7	-10.6	-13.8
<b>APEC 21</b>	<b>150.4</b>	<b>403.7</b>	<b>626.2</b>	<b>703.0</b>	<b>690.2</b>	<b>639.6</b>

## Total Primary Energy Supply per GDP & Capita APEC 21



	toe/capita					
	1990	1995	2000	2005	2008	2009
Population (mill.)	2,280	2,422	2,543	2,642	2,698	2,717
Primary Energy Supply per Capita	2.03	2.07	2.14	2.40	2.54	2.50

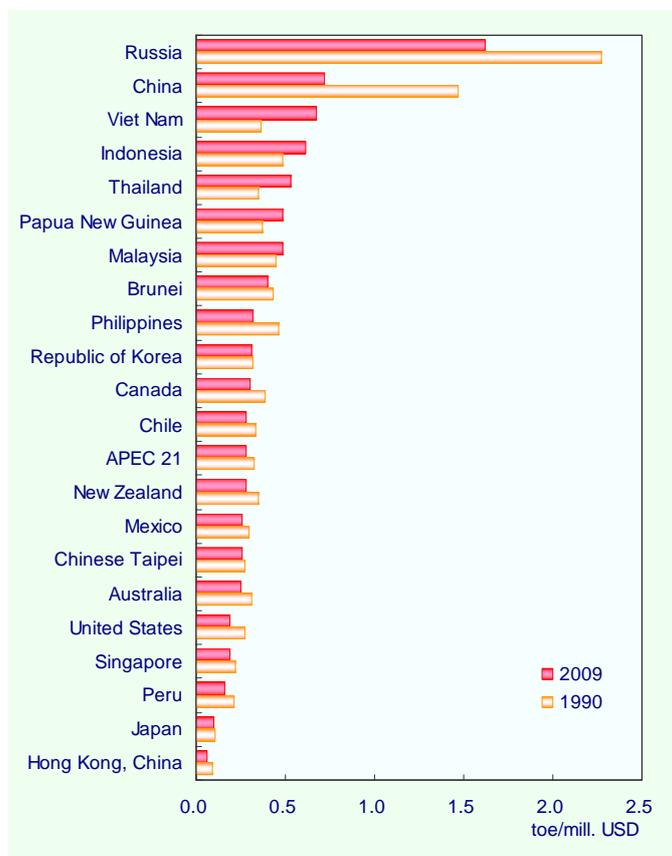
	toe/mill. USD					
	1990	1995	2000	2005	2008	2009
GDP (mill. USD)	14,338	16,329	19,505	22,521	24,563	24,080
Primary Energy Supply per GDP	323.2	306.5	279.6	282.1	278.6	282.1

Primary Energy Supply

### Total Primary Energy Supply per Capita 1990 – 2009 by Economy

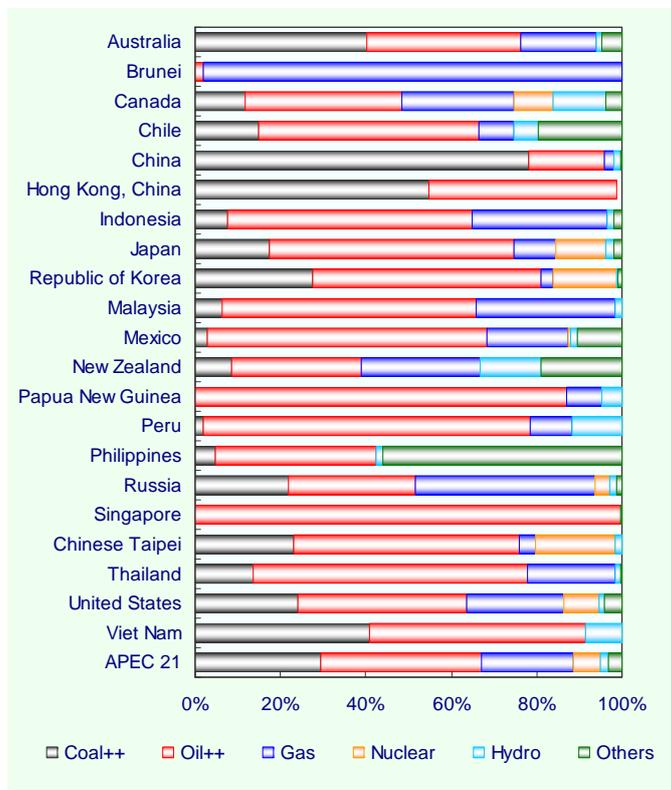


### Total Primary Energy Supply per GDP 1990 – 2009 by Economy

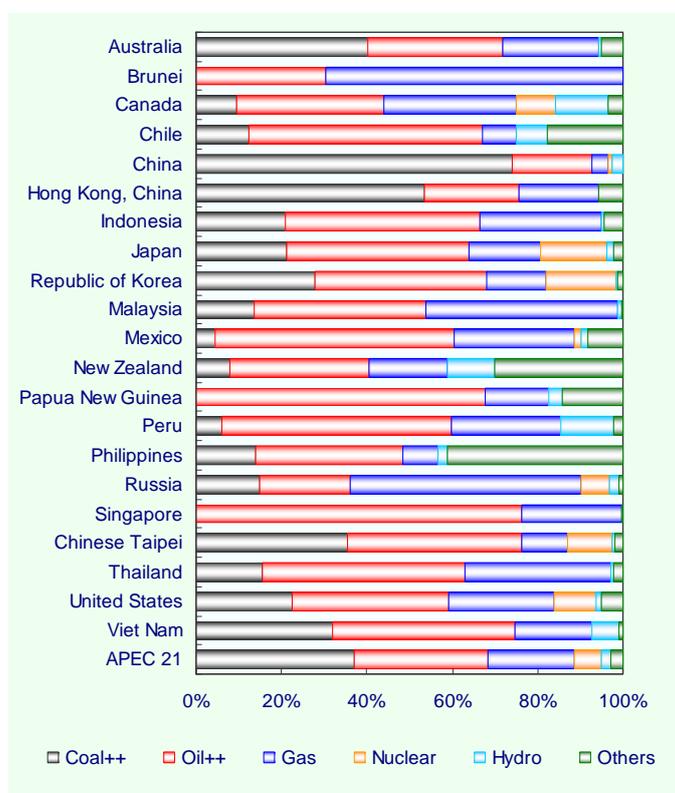


Primary Energy Supply

### Primary Energy Mix by Economy 1990

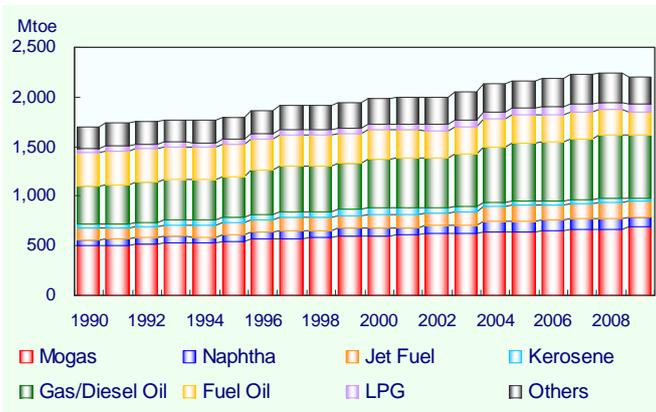


## Primary Energy Mix by Economy 2009



Primary Energy Supply

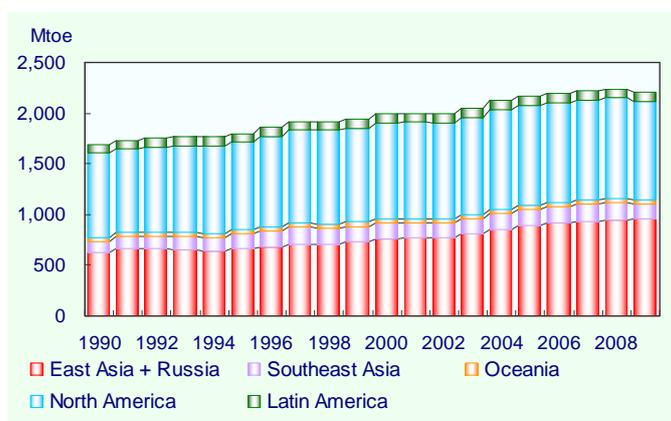
## Refining of Petroleum Products by Fuel APEC 21



	Mtoe					
	1990	1995	2000	2005	2008	2009
Mogas	505.4	548.8	600.7	641.8	670.8	690.8
Naphtha	54.3	66.1	78.9	111.3	104.9	100.3
Jet Fuel	120.5	120.0	137.7	153.3	165.6	159.5
Kerosene	41.8	48.1	59.9	45.6	32.7	30.7
Gas/Diesel Oil	380.2	418.9	495.9	580.1	643.2	635.5
Fuel Oil	340.2	325.0	293.2	284.1	253.9	228.1
LPG	42.1	51.0	61.9	68.9	77.1	81.5
Others	208.0	222.0	261.6	280.1	290.1	276.3
<b>Total</b>	<b>1,692.4</b>	<b>1,799.9</b>	<b>1,989.8</b>	<b>2,165.0</b>	<b>2,238.3</b>	<b>2,202.7</b>

	Share (%)					
	1990	1995	2000	2005	2008	2009
Mogas	29.9	30.5	30.2	29.6	30.0	31.4
Naphtha	3.2	3.7	4.0	5.1	4.7	4.6
Jet Fuel	7.1	6.7	6.9	7.1	7.4	7.2
Kerosene	2.5	2.7	3.0	2.1	1.5	1.4
Gas/Diesel Oil	22.5	23.3	24.9	26.8	28.7	28.9
Fuel Oil	20.1	18.1	14.7	13.1	11.3	10.4
LPG	2.5	2.8	3.1	3.2	3.4	3.7
Others	12.3	12.3	13.1	12.9	13.0	12.5

## Refining of Petroleum Products by Region APEC 21

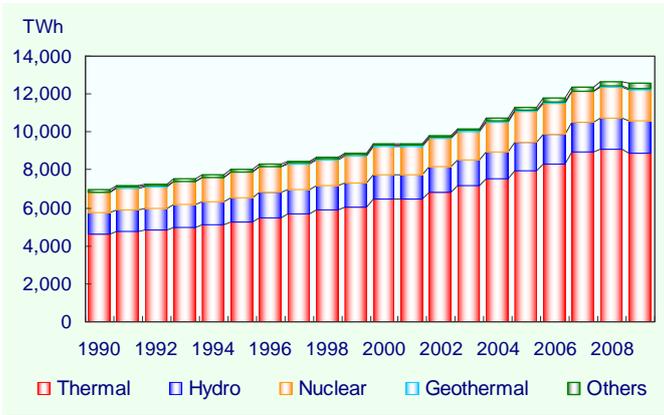


	Mtoe					
	1990	1995	2000	2005	2008	2009
East Asia + Russia	626.1	662.4	763.4	888.9	950.1	957.2
Southeast Asia	109.8	142.6	154.8	165.7	165.9	147.2
Oceania	37.0	41.2	43.5	40.8	39.3	39.2
North America	840.5	869.5	945.7	979.8	995.2	968.0
Latin America	78.9	84.1	82.4	89.8	87.8	91.0
<b>APEC 21</b>	<b>1,692.4</b>	<b>1,799.9</b>	<b>1,989.8</b>	<b>2,165.0</b>	<b>2,238.3</b>	<b>2,202.7</b>

	Share (%)					
	1990	1995	2000	2005	2008	2009
East Asia + Russia	37.0	36.8	38.4	41.1	42.4	43.5
Southeast Asia	6.5	7.9	7.8	7.7	7.4	6.7
Oceania	2.2	2.3	2.2	1.9	1.8	1.8
North America	49.7	48.3	47.5	45.3	44.5	43.9
Latin America	4.7	4.7	4.1	4.1	3.9	4.1

## Electricity Power Generation by Type APEC 21

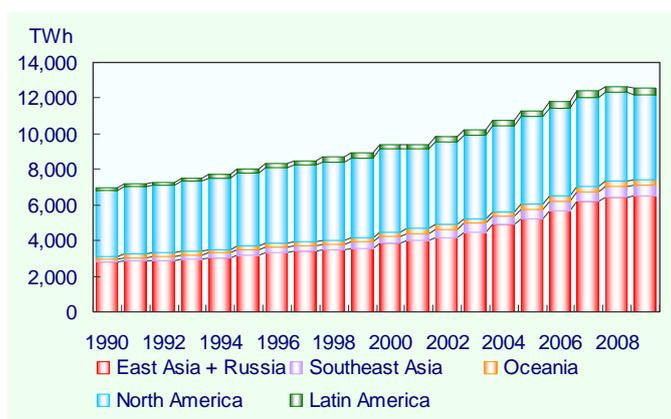


	TWh					
	1990	1995	2000	2005	2008	2009
Thermal	4,628.9	5,271.9	6,449.4	7,986.5	9,078.9	8,885.3
Hydro	1,101.0	1,291.7	1,291.3	1,493.6	1,683.1	1,723.1
Nuclear	1,086.1	1,321.7	1,492.8	1,595.9	1,616.6	1,628.8
Geothermal	31.5	34.1	43.4	47.4	50.4	51.1
Others	113.8	100.7	115.6	168.2	240.1	284.1
<b>Total</b>	<b>6,961.2</b>	<b>8,020.2</b>	<b>9,392.5</b>	<b>11,291.6</b>	<b>12,669.1</b>	<b>12,572.4</b>

	Share (%)					
	1990	1995	2000	2005	2008	2009
Thermal	66.5	65.7	68.7	70.7	71.7	70.7
Hydro	15.8	16.1	13.7	13.2	13.3	13.7
Nuclear	15.6	16.5	15.9	14.1	12.8	13.0
Geothermal	0.5	0.4	0.5	0.4	0.4	0.4
Others	1.6	1.3	1.2	1.5	1.9	2.3

"Others" comprises power generated from renewable energy.

## Electricity Power Generation by Region APEC 21

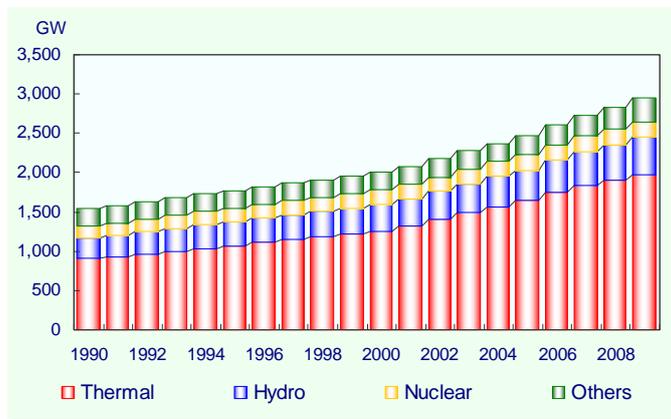


	TWh					
	1990	1995	2000	2005	2008	2009
East Asia + Russia	2,767.3	3,180.2	3,824.9	5,259.4	6,413.9	6,523.5
Southeast Asia	156.7	289.9	393.2	498.4	587.1	594.3
Oceania	189.1	210.7	251.8	291.5	304.2	307.9
North America	3,700.8	4,142.2	4,658.4	4,920.5	5,009.3	4,791.4
Latin America	147.4	197.1	264.2	321.8	354.6	355.4
<b>APEC 21</b>	<b>6,961.2</b>	<b>8,020.2</b>	<b>9,392.5</b>	<b>11,291.6</b>	<b>12,669.1</b>	<b>12,572.4</b>

	Share (%)					
	1990	1995	2000	2005	2008	2009
East Asia + Russia	39.8	39.7	40.7	46.6	50.6	51.9
Southeast Asia	2.3	3.6	4.2	4.4	4.6	4.7
Oceania	2.7	2.6	2.7	2.6	2.4	2.4
North America	53.2	51.6	49.6	43.6	39.5	38.1
Latin America	2.1	2.5	2.8	2.9	2.8	2.8

## Power Generation Capacity by Type APEC 21



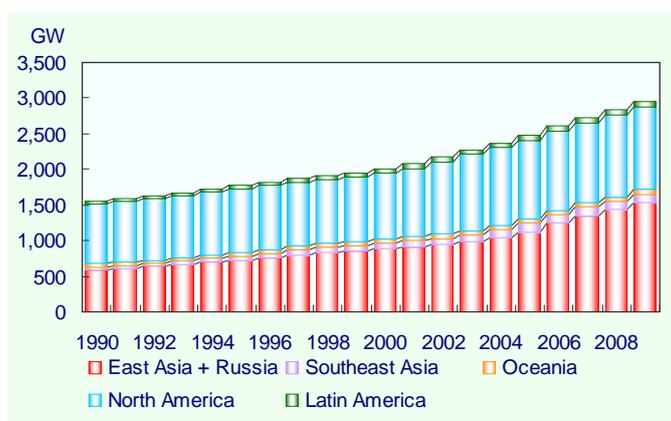
	GW					
	1990	1995	2000	2005	2008	2009
Thermal	904.1	1,065.0	1,257.2	1,639.9	1,901.5	1,969.3
Hydro	264.3	308.5	344.3	392.7	454.4	482.1
Nuclear	158.3	174.4	176.0	192.1	196.6	195.5
Others	222.1	223.7	223.3	246.4	280.2	310.2
<b>Total</b>	<b>1,548.7</b>	<b>1,771.6</b>	<b>2,000.9</b>	<b>2,471.1</b>	<b>2,832.8</b>	<b>2,957.0</b>

	Share (%)					
	1990	1995	2000	2005	2008	2009
Thermal	58.4	60.1	62.8	66.4	67.1	66.6
Hydro	17.1	17.4	17.2	15.9	16.0	16.3
Nuclear	10.2	9.8	8.8	7.8	6.9	6.6
Others	14.3	12.6	11.2	10.0	9.9	10.5

"Others" comprises power generated from renewable energy.

## Power Generation Capacity by Region APEC 21

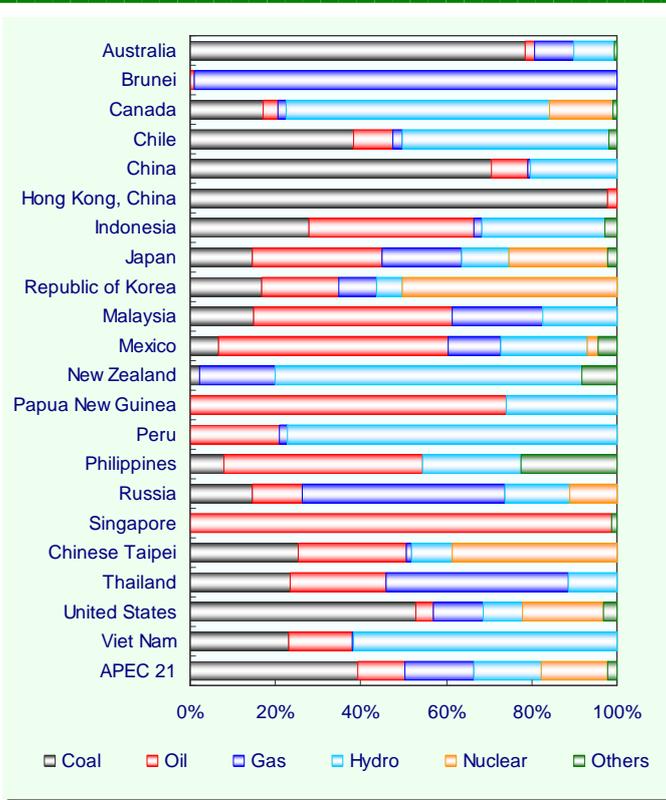


	GW					
	1990	1995	2000	2005	2008	2009
East Asia + Russia	592.3	723.4	883.6	1,124.5	1,432.2	1,530.7
Southeast Asia	37.0	59.8	82.1	115.4	120.1	124.0
Oceania	46.1	50.6	55.1	59.1	63.0	65.1
North America	837.7	891.8	924.0	1,101.4	1,138.9	1,158.3
Latin America	35.6	46.0	56.1	70.7	78.6	78.9
<b>APEC 21</b>	<b>1,548.7</b>	<b>1,771.6</b>	<b>2,000.9</b>	<b>2,471.1</b>	<b>2,832.8</b>	<b>2,957.0</b>

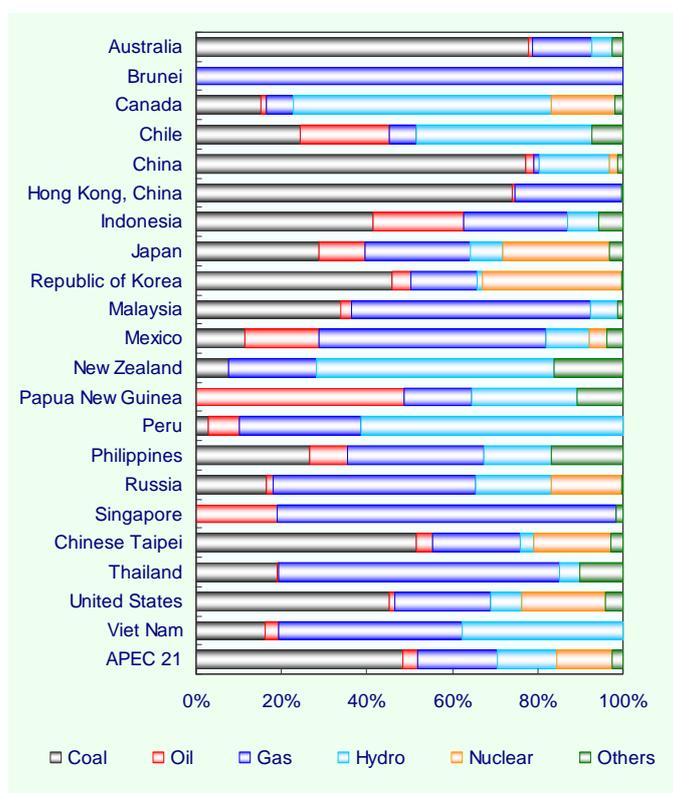
  

	Share (%)					
	1990	1995	2000	2005	2008	2009
East Asia + Russia	38.2	40.8	44.2	45.5	50.6	51.8
Southeast Asia	2.4	3.4	4.1	4.7	4.2	4.2
Oceania	3.0	2.9	2.8	2.4	2.2	2.2
North America	54.1	50.3	46.2	44.6	40.2	39.2
Latin America	2.3	2.6	2.8	2.9	2.8	2.7

### Electricity Power Generation by Economy 1990

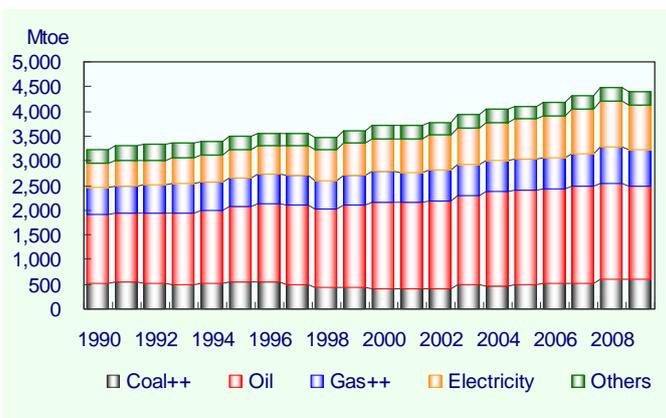


## Electricity Power Generation by Economy 2009



Transformation

## Total Final Energy Consumption by Energy APEC 21

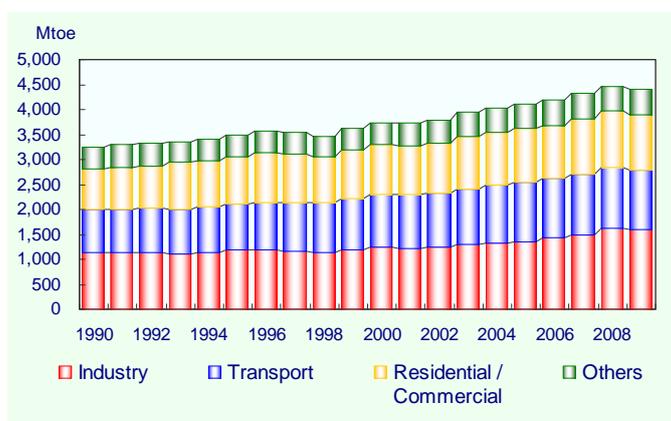


	Mtoe					
	1990	1995	2000	2005	2008	2009
Coal++	519.0	551.5	423.3	492.2	608.4	599.2
Oil	1,388.2	1,521.1	1,724.5	1,911.9	1,931.6	1,892.5
Gas++	551.0	585.3	633.5	627.8	745.6	738.3
Electricity	502.2	563.7	674.3	807.7	912.7	905.6
Others	275.7	272.2	273.4	264.6	270.1	258.5
<b>APEC 21</b>	<b>3,236.1</b>	<b>3,493.7</b>	<b>3,729.1</b>	<b>4,104.2</b>	<b>4,468.4</b>	<b>4,394.0</b>

	Share (%)					
	1990	1995	2000	2005	2008	2009
Coal++	16.0	15.8	11.4	12.0	13.6	13.6
Oil	42.9	43.5	46.2	46.6	43.2	43.1
Gas++	17.0	16.8	17.0	15.3	16.7	16.8
Electricity	15.5	16.1	18.1	19.7	20.4	20.6
Others	8.5	7.8	7.3	6.4	6.0	5.9

## Total Final Energy Consumption by Sector APEC 21



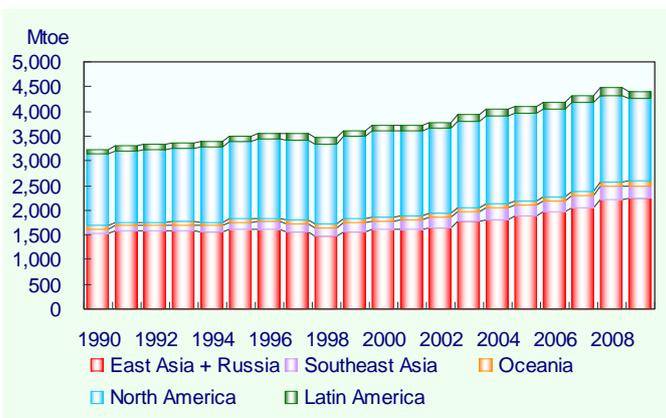
	Mtoe					
	1990	1995	2000	2005	2008	2009
Industry	1,130.8	1,185.4	1,249.7	1,362.2	1,619.5	1,585.6
Transport	862.9	929.4	1,050.4	1,177.4	1,219.4	1,194.5
Residential / Commercial	818.9	951.3	998.1	1,073.8	1,125.2	1,118.3
Others	423.5	427.6	430.9	490.8	504.2	495.8
<b>Total</b>	<b>3,236.1</b>	<b>3,493.7</b>	<b>3,729.1</b>	<b>4,104.2</b>	<b>4,468.4</b>	<b>4,394.0</b>

	Share (%)					
	1990	1995	2000	2005	2008	2009
Industry	34.9	33.9	33.5	33.2	36.2	36.1
Transport	26.7	26.6	28.2	28.7	27.3	27.2
Residential / Commercial	25.3	27.2	26.8	26.2	25.2	25.4
Others	13.1	12.2	11.6	12.0	11.3	11.3

Final Energy Consumption

## Total Final Energy Consumption by Region APEC 21

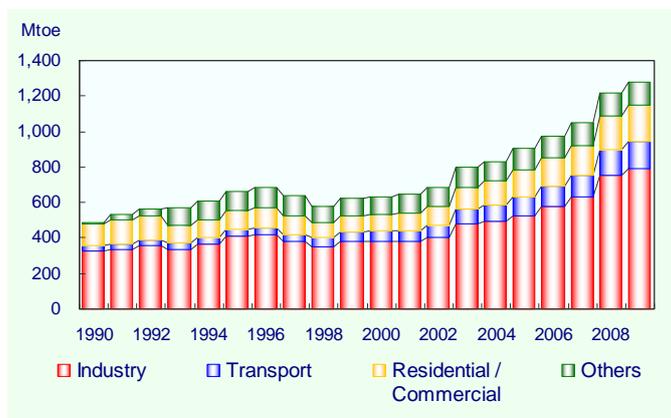


	Mtoe					
	1990	1995	2000	2005	2008	2009
East Asia + Russia	1,520.6	1,611.7	1,605.2	1,880.4	2,206.8	2,230.6
Southeast Asia	96.7	145.2	177.4	223.2	267.9	262.0
Oceania	66.8	74.2	83.3	88.5	91.6	90.7
North America	1,450.4	1,550.2	1,734.8	1,775.1	1,752.3	1,666.6
Latin America	101.6	112.5	128.5	137.1	149.9	144.1
<b>APEC 21</b>	<b>3,236.1</b>	<b>3,493.7</b>	<b>3,729.1</b>	<b>4,104.2</b>	<b>4,468.4</b>	<b>4,394.0</b>

	Share (%)					
	1990	1995	2000	2005	2008	2009
East Asia + Russia	47.0	46.1	43.0	45.8	49.4	50.8
Southeast Asia	3.0	4.2	4.8	5.4	6.0	6.0
Oceania	2.1	2.1	2.2	2.2	2.0	2.1
North America	44.8	44.4	46.5	43.2	39.2	37.9
Latin America	3.1	3.2	3.4	3.3	3.4	3.3

## Total Final Energy Consumption by Sector China



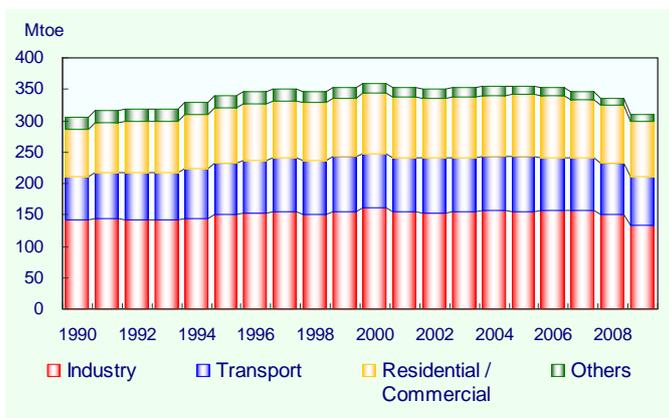
	1990	1995	2000	2005	2008	Mtoe 2009
Industry	329.8	410.0	379.3	527.9	754.2	794.2
Transport	28.8	36.4	60.1	105.0	145.3	149.6
Residential / Commercial	118.4	107.0	96.0	153.4	190.6	201.4
Others	13.0	107.3	99.3	117.4	128.7	134.4
<b>Total</b>	<b>489.9</b>	<b>660.7</b>	<b>634.7</b>	<b>903.6</b>	<b>1,218.8</b>	<b>1,279.6</b>

	1990	1995	2000	2005	2008	Share (%) 2009
Industry	67.3	62.1	59.8	58.4	61.9	62.1
Transport	5.9	5.5	9.5	11.6	11.9	11.7
Residential / Commercial	24.2	16.2	15.1	17.0	15.6	15.7
Others	2.6	16.2	15.6	13.0	10.6	10.5

Final Energy Consumption

## Total Final Energy Consumption by Sector Japan

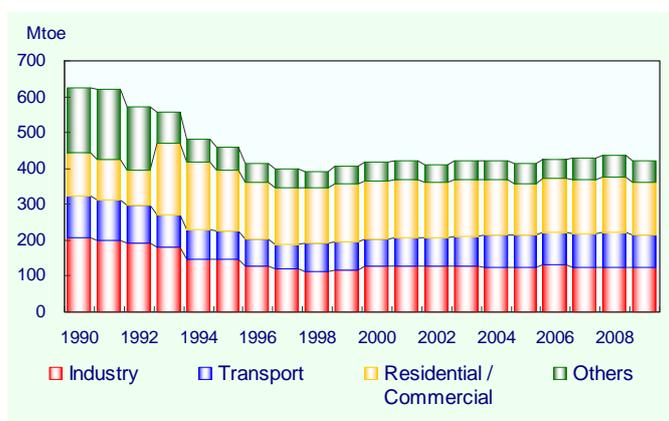


	1990	1995	2000	2005	2008	Mtoe 2009
Industry	140.9	150.4	160.7	155.7	151.5	132.6
Transport	70.1	81.3	87.1	86.5	80.5	78.5
Residential / Commercial	74.3	88.8	95.4	99.0	92.0	88.8
Others	19.5	18.9	16.7	13.9	10.8	9.9
<b>Total</b>	<b>304.8</b>	<b>339.3</b>	<b>359.9</b>	<b>355.0</b>	<b>334.9</b>	<b>309.8</b>

	1990	1995	2000	2005	2008	Share (%) 2009
Industry	46.2	44.3	44.6	43.8	45.2	42.8
Transport	23.0	24.0	24.2	24.4	24.0	25.3
Residential / Commercial	24.4	26.2	26.5	27.9	27.5	28.7
Others	6.4	5.6	4.6	3.9	3.2	3.2

## Total Final Energy Consumption by Sector Russia



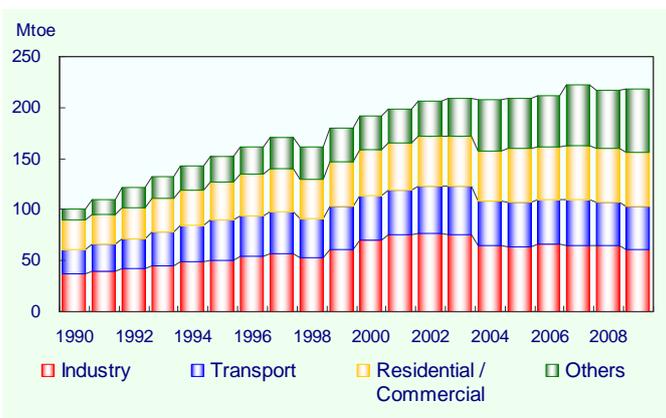
	1990	1995	2000	2005	2008	Mtoe 2009
Industry	208.7	148.3	129.5	124.2	125.4	124.5
Transport	115.9	76.1	74.5	88.6	97.2	89.6
Residential / Commercial	119.8	172.4	162.9	145.3	154.6	147.4
Others	180.7	63.1	51.9	54.4	58.4	61.3
<b>Total</b>	<b>625.0</b>	<b>460.0</b>	<b>418.8</b>	<b>412.4</b>	<b>435.6</b>	<b>422.9</b>

	1990	1995	2000	2005	2008	Share (%) 2009
Industry	33.4	32.2	30.9	30.1	28.8	29.5
Transport	18.5	16.6	17.8	21.5	22.3	21.2
Residential / Commercial	19.2	37.5	38.9	35.2	35.5	34.9
Others	28.9	13.7	12.4	13.2	13.4	14.5

Final Energy Consumption

## Total Final Energy Consumption by Sector Other East Asia

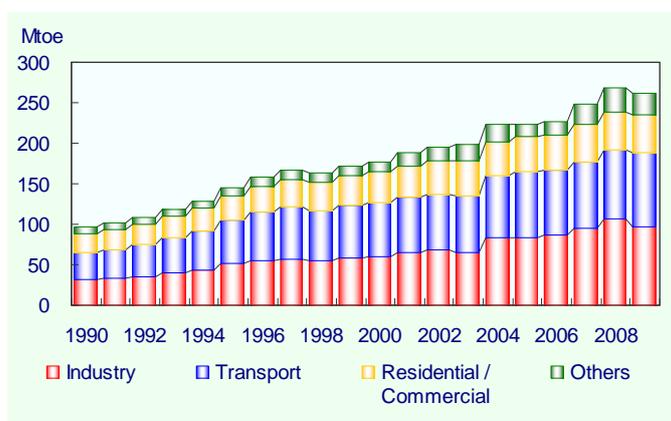


	1990	1995	2000	2005	2008	Mtoe 2009
Industry	36.4	50.5	69.6	63.4	64.4	60.5
Transport	24.4	38.8	44.5	44.2	42.5	42.9
Residential / Commercial	28.7	37.6	44.7	52.3	52.6	53.0
Others	11.4	24.8	33.1	49.4	58.1	61.9
<b>Total</b>	<b>100.9</b>	<b>151.7</b>	<b>191.9</b>	<b>209.4</b>	<b>217.6</b>	<b>218.3</b>

	1990	1995	2000	2005	2008	Share (%) 2009
Industry	36.1	33.3	36.3	30.3	29.6	27.7
Transport	24.2	25.6	23.2	21.1	19.5	19.7
Residential / Commercial	28.4	24.8	23.3	25.0	24.2	24.3
Others	11.3	16.3	17.2	23.6	26.7	28.3

## Total Final Energy Consumption by Sector Southeast Asia



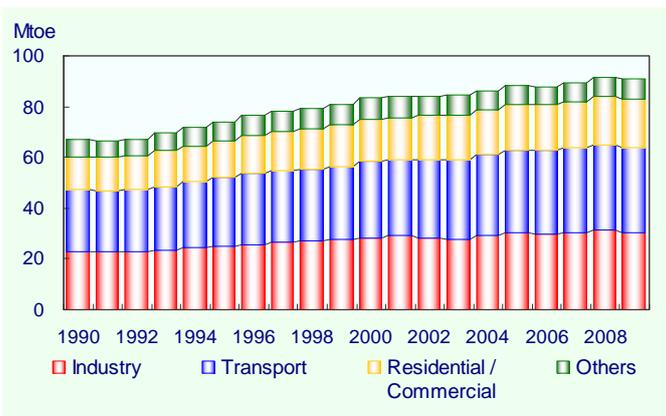
	1990	1995	2000	2005	2008	Mtoe 2009
Industry	31.3	50.9	60.5	83.5	106.9	96.3
Transport	34.4	54.1	65.4	81.1	84.1	91.9
Residential / Commercial	23.1	29.8	38.6	43.0	47.3	47.0
Others	7.9	10.3	12.9	15.5	29.6	26.7
<b>Total</b>	<b>96.7</b>	<b>145.2</b>	<b>177.4</b>	<b>223.2</b>	<b>267.9</b>	<b>262.0</b>

	1990	1995	2000	2005	2008	Share (%) 2009
Industry	32.4	35.1	34.1	37.4	39.9	36.8
Transport	35.5	37.3	36.9	36.4	31.4	35.1
Residential / Commercial	23.9	20.6	21.7	19.3	17.7	18.0
Others	8.2	7.1	7.3	6.9	11.0	10.2

Final Energy Consumption

### Total Final Energy Consumption by Sector Oceania

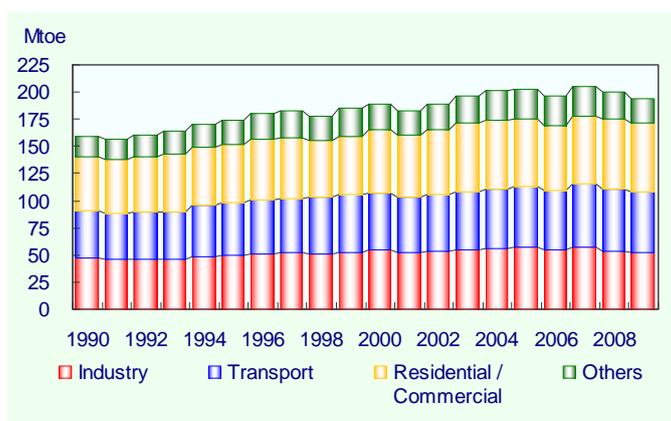


	1990	1995	2000	2005	2008	Mtoe 2009
Industry	22.8	25.0	28.2	30.1	31.2	30.3
Transport	24.3	27.0	30.0	32.7	33.9	33.7
Residential / Commercial	13.1	14.7	16.7	18.0	18.7	19.1
Others	6.6	7.5	8.3	7.8	7.7	7.6
<b>Total</b>	<b>66.8</b>	<b>74.2</b>	<b>83.3</b>	<b>88.5</b>	<b>91.6</b>	<b>90.7</b>

	1990	1995	2000	2005	2008	Share (%) 2009
Industry	34.2	33.7	33.9	34.0	34.1	33.4
Transport	36.4	36.4	36.1	36.9	37.0	37.1
Residential / Commercial	19.6	19.8	20.0	20.4	20.5	21.1
Others	9.8	10.1	10.0	8.8	8.4	8.4

## Total Final Energy Consumption by Sector Canada



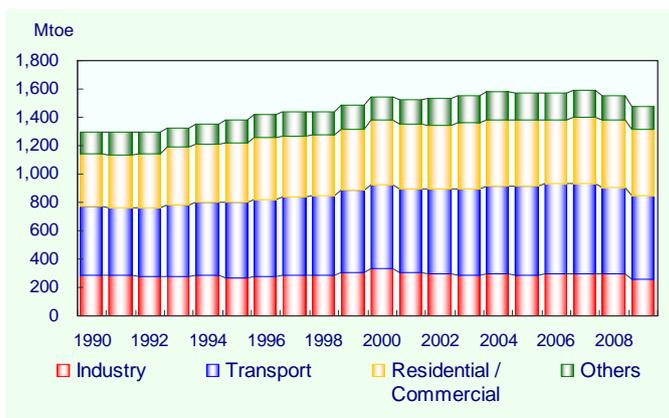
	1990	1995	2000	2005	2008	Mtoe 2009
Industry	47.3	50.1	54.7	57.5	53.0	51.9
Transport	43.1	47.8	52.2	55.8	57.2	55.7
Residential / Commercial	50.4	53.8	58.3	62.3	64.6	63.3
Others	18.0	21.7	23.9	27.1	25.7	23.4
<b>Total</b>	<b>158.8</b>	<b>173.4</b>	<b>189.2</b>	<b>202.7</b>	<b>200.5</b>	<b>194.3</b>

	1990	1995	2000	2005	2008	Share (%) 2009
Industry	29.8	28.9	28.9	28.4	26.4	26.7
Transport	27.2	27.5	27.6	27.5	28.5	28.7
Residential / Commercial	31.8	31.0	30.8	30.7	32.2	32.6
Others	11.3	12.5	12.7	13.4	12.8	12.0

Final Energy Consumption

## Total Final Energy Consumption by Sector United States of America

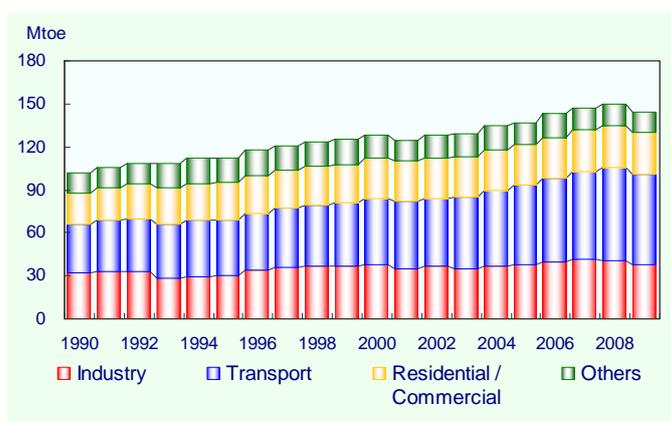


	1990	1995	2000	2005	2008	Mtoe 2009
Industry	281.8	270.0	329.5	282.4	292.5	256.6
Transport	487.6	529.3	590.4	628.3	613.9	589.7
Residential / Commercial	369.2	421.0	457.1	472.1	475.7	468.7
Others	153.1	156.4	168.6	189.6	169.7	157.2
<b>Total</b>	<b>1,291.6</b>	<b>1,376.8</b>	<b>1,545.6</b>	<b>1,572.4</b>	<b>1,551.8</b>	<b>1,472.3</b>

	1990	1995	2000	2005	2008	Share (%) 2009
Industry	21.8	19.6	21.3	18.0	18.8	17.4
Transport	37.7	38.4	38.2	40.0	39.6	40.1
Residential / Commercial	28.6	30.6	29.6	30.0	30.7	31.8
Others	11.9	11.4	10.9	12.1	10.9	10.7

## Total Final Energy Consumption by Sector Latin America



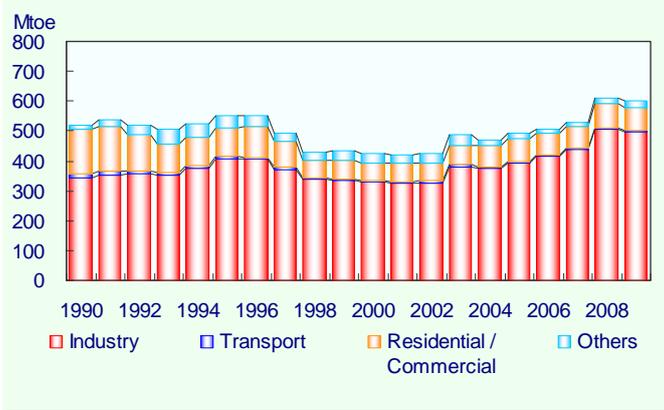
	1990	1995	2000	2005	2008	Mtoe 2009
Industry	31.7	30.2	37.8	37.6	40.5	38.1
Transport	34.4	38.6	46.1	55.4	64.7	62.8
Residential / Commercial	21.9	26.0	28.4	28.4	29.2	29.4
Others	13.5	17.6	16.2	15.7	15.6	13.8
<b>Total</b>	<b>101.6</b>	<b>112.5</b>	<b>128.5</b>	<b>137.1</b>	<b>149.9</b>	<b>144.1</b>

	1990	1995	2000	2005	2008	Share (%) 2009
Industry	31.2	26.9	29.4	27.4	27.0	26.5
Transport	33.9	34.4	35.9	40.4	43.1	43.6
Residential / Commercial	21.6	23.1	22.1	20.7	19.5	20.4
Others	13.3	15.7	12.6	11.4	10.4	9.6

Final Energy Consumption

### Coal++ Demand by Sector APEC 21

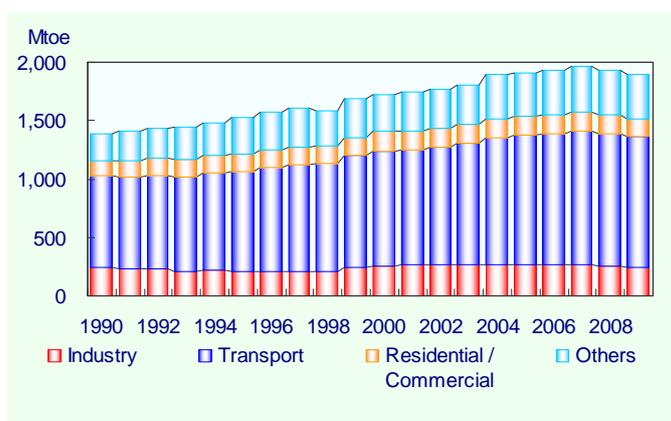


	1990	1995	2000	2005	2008	Mtoe 2009
Industry	345.4	408.1	328.3	392.2	506.4	497.8
Transport	11.2	7.1	5.6	5.6	4.4	4.3
Residential / Commercial	148.7	97.1	60.9	78.0	80.1	78.4
Others	13.6	39.1	28.5	16.4	17.5	18.7
<b>Total</b>	<b>519.0</b>	<b>551.5</b>	<b>423.3</b>	<b>492.2</b>	<b>608.4</b>	<b>599.2</b>

	1990	1995	2000	2005	2008	Share (%) 2009
Industry	66.6	74.0	77.6	79.7	83.2	83.1
Transport	2.2	1.3	1.3	1.1	0.7	0.7
Residential / Commercial	28.7	17.6	14.4	15.9	13.2	13.1
Others	2.6	7.1	6.7	3.3	2.9	3.1

## Oil Demand by Sector APEC 21



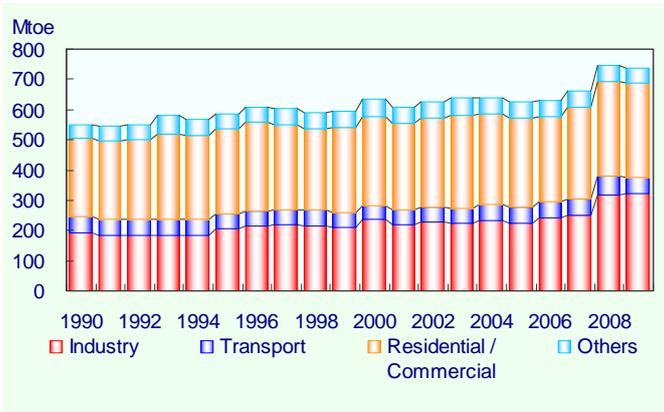
	Mtoe					
	1990	1995	2000	2005	2008	2009
Industry	237.7	203.4	255.7	266.7	255.3	246.3
Transport	786.7	861.0	986.5	1,103.3	1,136.9	1,118.8
Residential / Commercial	135.1	147.5	164.3	167.7	157.5	153.0
Others	228.8	309.2	318.0	374.2	382.0	374.4
<b>Total</b>	<b>1,388.2</b>	<b>1,521.1</b>	<b>1,724.5</b>	<b>1,911.9</b>	<b>1,931.6</b>	<b>1,892.5</b>

	Share (%)					
	1990	1995	2000	2005	2008	2009
Industry	17.1	13.4	14.8	13.9	13.2	13.0
Transport	56.7	56.6	57.2	57.7	58.9	59.1
Residential / Commercial	9.7	9.7	9.5	8.8	8.2	8.1
Others	16.5	20.3	18.4	19.6	19.8	19.8

Final Energy Consumption

### Gas++ Demand by Sector APEC 21

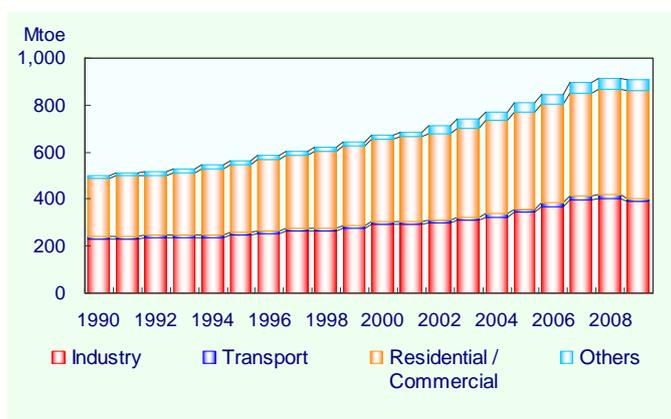


	Mtoe					
	1990	1995	2000	2005	2008	2009
Industry	194.1	205.6	235.4	222.8	316.7	321.8
Transport	52.5	51.1	47.3	54.0	62.4	55.6
Residential / Commercial	256.7	278.0	292.8	293.9	312.5	309.8
Others	47.8	50.5	58.0	57.1	54.0	51.1
<b>Total</b>	<b>551.0</b>	<b>585.3</b>	<b>633.5</b>	<b>627.8</b>	<b>745.6</b>	<b>738.3</b>

	Share (%)					
	1990	1995	2000	2005	2008	2009
Industry	35.2	35.1	37.2	35.5	42.5	43.6
Transport	9.5	8.7	7.5	8.6	8.4	7.5
Residential / Commercial	46.6	47.5	46.2	46.8	41.9	42.0
Others	8.7	8.6	9.2	9.1	7.2	6.9

## Electricity Demand by Sector APEC 21



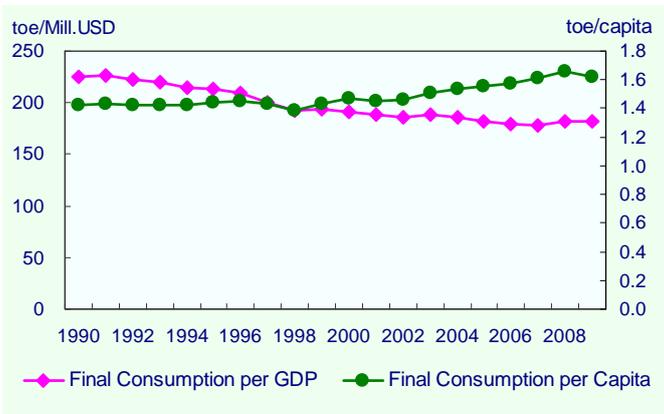
	1990	1995	2000	2005	2008	Mtoe 2009
Industry	229.7	246.0	293.3	343.1	401.0	388.0
Transport	12.6	10.1	11.0	14.5	15.7	15.8
Residential / Commercial	246.8	291.7	352.7	411.8	450.5	455.4
Others	13.1	15.9	17.4	38.2	45.5	46.4
<b>Total</b>	<b>502.2</b>	<b>563.7</b>	<b>674.3</b>	<b>807.7</b>	<b>912.7</b>	<b>905.6</b>

	1990	1995	2000	2005	2008	Share (%) 2009
Industry	45.7	43.6	43.5	42.5	43.9	42.8
Transport	2.5	1.8	1.6	1.8	1.7	1.7
Residential / Commercial	49.1	51.7	52.3	51.0	49.4	50.3
Others	2.6	2.8	2.6	4.7	5.0	5.1

Final Energy Consumption

## Final Consumption per Capita and GDP APEC 21

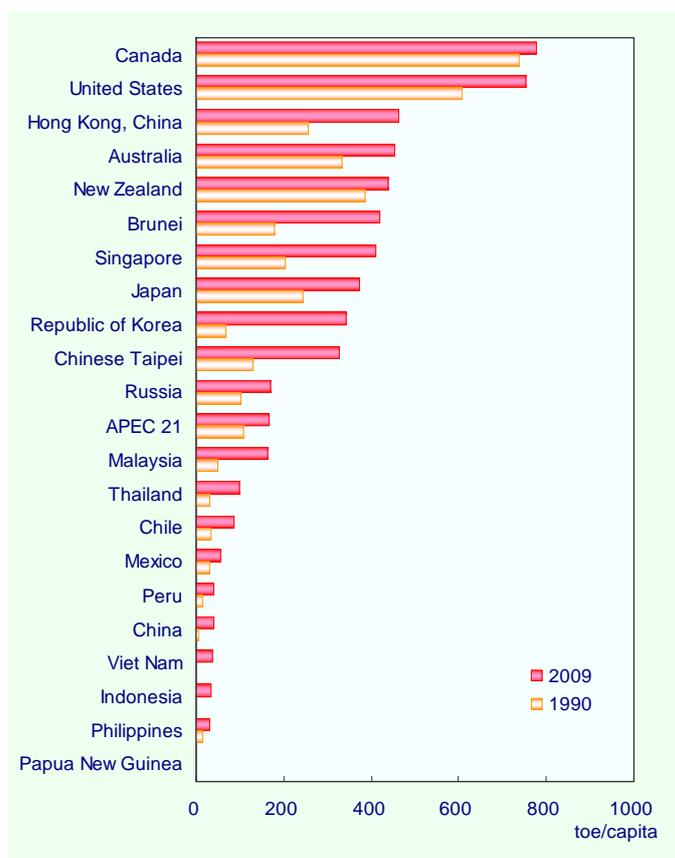


	1990	1995	2000	2005	2008	2009
Population (mill.)	2,280	2,422	2,543	2,642	2,698	2,717
Final Consumption per Capita	1.42	1.44	1.47	1.55	1.66	1.62

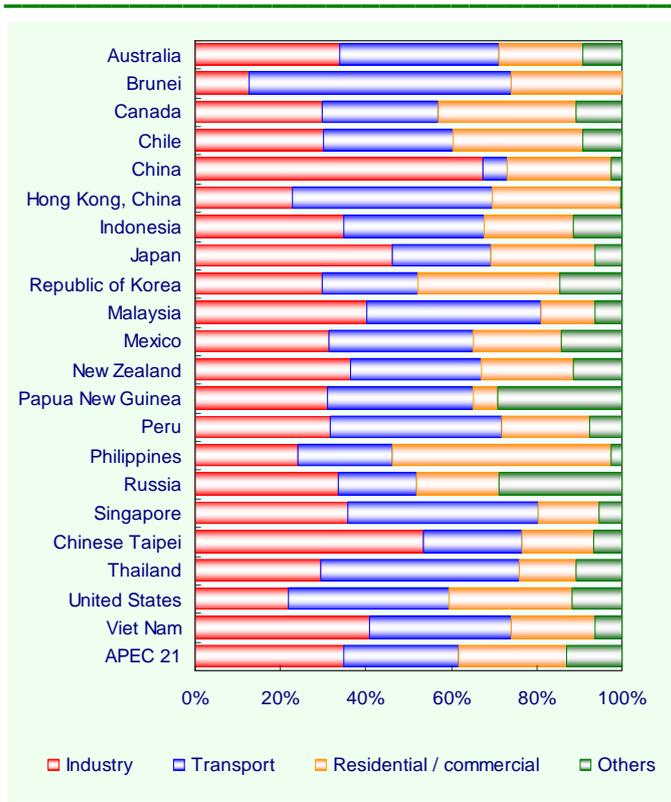
	1990	1995	2000	2005	2008	2009
GDP (mill. US\$)	14,338	16,329	19,505	22,521	24,563	24,080
Final Consumption per GDP	225.71	213.96	191.19	182.24	181.92	182.48

## Electricity Consumption in Residential/Commercial: APEC 21

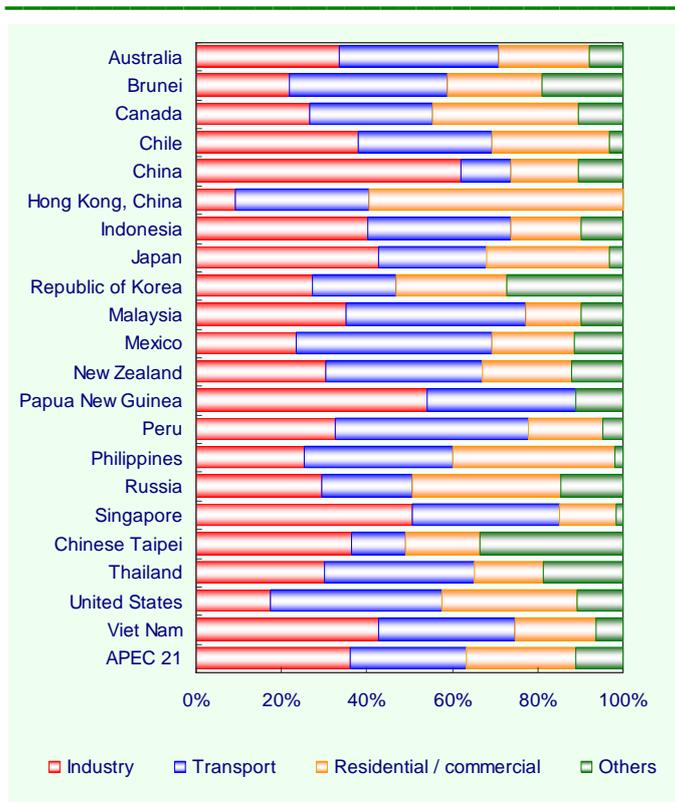


Final Energy Consumption

### Final Energy Consumption by Sector 1990

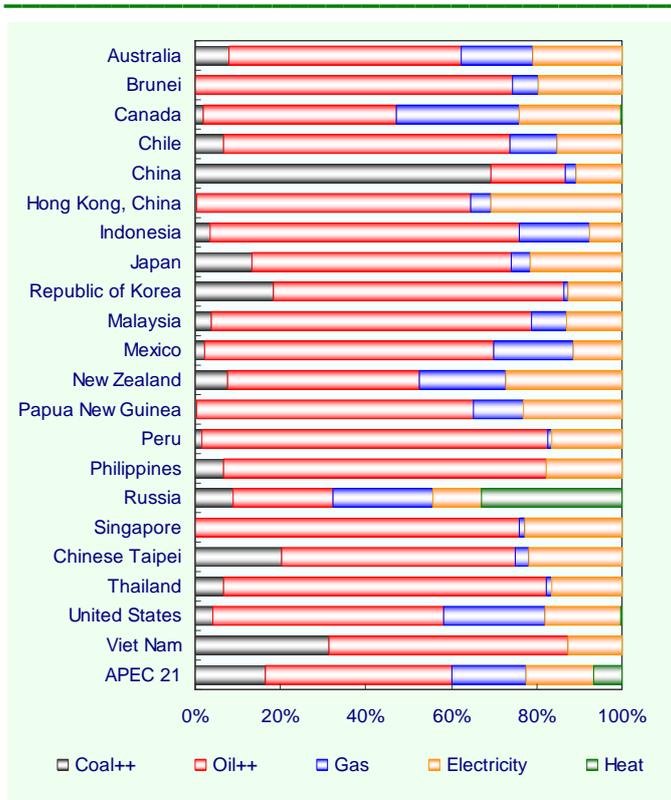


## Final Energy Consumption by Sector 2009

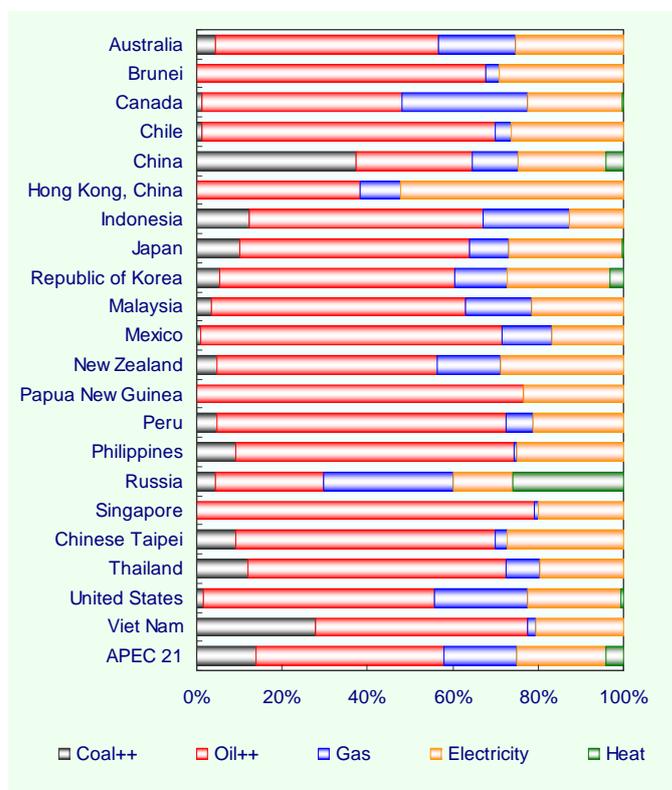


Final Energy Consumption

### Final Energy Consumption by Energy 1990



## Final Energy Consumption by Energy 2009



Final Energy Consumption

## APEC 21, 2009

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	2,688,844	-	1,494,115	9,769
2 Import	336,177	6,916	1,291,253	431,127
3 Export	-432,327	-2,774	-509,883	-433,334
4 International Marine Bunkers	-	-	-	-89,993
5 International Aviation Bunkers	-	-	-	-59,375
6 Stock Change	-61,940	-15,637	-9,557	-2,954
7 Total Primary Energy Supply	2,530,754	-11,495	2,265,929	-144,760
8 Transfers	-	-	-34,447	46,777
9 Main Activity Peoducer	-1,436,740	-4,540	-3,352	-55,491
10 Autoproducers	-104,916	-14,568	-816	-27,526
11 Gas Processing	-8,589	-1,090	-	-1,294
12 Petroleum Refineries	-	-	-2,229,528	2,202,673
13 Coal Transformation	-358,198	156,146	-	-659
14 Other Transformation	-	-	26,604	-5,673
15 Loss & Own Use	-79,117	-11,538	-9,634	-109,047
16 Discrepancy	-52,882	-4,026	-6,168	-21,110
17 Total Final Energy Consumption	490,312	108,889	8,588	1,883,890
18 Industry Sector	395,350	102,463	2,353	243,932
19 Transport Sector	4,287	1	-	1,118,753
20 Other Sector	90,675	6,425	28	231,662
20.1 Residential & Commercial	72,432	5,966	-	153,035
20.2 Agriculture	8,157	303	13	46,558
20.3 Other	10,086	156	15	32,069
21 Non-energy	-	-	6,207	289,543

## Australia, 2009

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	222,226	-	25,503	-
2 Import	-	-	19,876	15,565
3 Export	-169,045	-	-15,421	-997
4 International Marine Bunkers	-	-	-	-825
5 International Aviation Bunkers	-	-	-	-3,119
6 Stock Change	-2,453	202	41	-267
7 Total Primary Energy Supply	50,728	202	29,999	10,357
8 Transfers	-	-	4,440	1,124
9 Main Activity Peoducer	-44,958	-322	-	-624
10 Autoproducers	-	-16	-	-
11 Gas Processing	-	-	-	-
12 Petroleum Refineries	-	-	-33,463	33,122
13 Coal Transformation	-2,833	1,405	-	-17
14 Other Transformation	-	-	219	-
15 Loss & Own Use	-	-496	-110	-2,061
16 Discrepancy	-442	9	-1,048	-3,905
17 Total Final Energy Consumption	2,495	782	38	37,996
18 Industry Sector	2,401	763	38	3,828
19 Transport Sector	79	-	-	27,972
20 Other Sector	15	19	-	2,965
20.1 Residential & Commercial	15	19	-	951
20.2 Agriculture	-	-	-	2,014
20.3 Other	-	-	-	-
21 Non Energy	-	-	-	3,231

Unit: ktoe							
Natural Gas. LNG	Hydro	Nuclear	Geothermal. Solar, etc.	Others	Electricity	Heat	Total
1,423,976	148,269	424,498	54,929	143,799	-	-	6,388,199
273,212	-	-	-	928	8,537	-	2,348,150
-319,384	-	-	-	-1,148	-9,655	-	-1,708,504
-	-	-	-	-	-	-	-89,993
-	-	-	-	-	-	-	-59,375
4,615	-	-	-	-297	-	-	-85,770
1,382,420	148,269	424,498	54,929	143,282	-1,118	-	6,792,708
-	-	-	-	-	-	-	12,330
-454,052	-91,003	-424,498	-51,193	-16,013	1,011,540	98,796	-1,426,546
-124,181	-3,629	-	-888	-25,118	69,816	118,950	-112,875
75,003	-	-	-	-	-	-	64,030
-	-	-	-	-	-	-	-26,855
-67	-	-	-	-	-	-	-202,778
-1,979	-	-	-	-24,598	-	-	-5,646
-141,246	-52,947	-	-0	-141	-166,328	-41,334	-611,333
2,384	-691	0	-43	2,793	-8,308	-944	-88,994
738,281	-	-	2,805	80,206	905,601	175,469	4,394,041
321,829	-	-	265	48,149	387,990	83,223	1,585,554
55,577	-	-	-	-	15,842	-	1,194,460
313,490	-	-	2,540	32,057	501,769	92,245	1,270,891
309,815	-	-	2,522	31,395	455,378	87,720	1,118,261
1,443	-	-	17	662	12,590	2,792	72,536
2,232	-	-	0	0	33,802	1,733	80,094
47,385	-	-	-	-	-	-	343,135

Unit: ktoe							
Natural Gas. LNG	Hydro	Nuclear	Geothermal. Solar, etc.	Others	Electricity	Heat	Total
41,184	1,057	-	548	5,764	-	-	296,282
5,122	-	-	-	-	-	-	40,563
-18,020	-	-	-	-	-	-	-203,483
-	-	-	-	-	-	-	-825
-	-	-	-	-	-	-	-3,119
-	-	-	-	-	-	-	-2,477
28,286	1,057	-	548	5,764	-	-	126,941
-	-	-	-	-	-	-	5,564
-5,193	-1,057	-	-328	-799	21,342	-	-31,939
-2,712	-	-	-24	-772	1,101	-	-2,422
-265	-	-	-	-	-	-	-265
-	-	-	-	-	-	-	-341
-67	-	-	-	-	-	-	-1,512
-	-	-	-	-218	-	-	1
-8,070	-	-	-	-	-4,059	-	-14,796
1,236	-	-	-	0	0	-	-4,150
13,215	-	-	197	3,975	18,384	-	77,082
8,151	-	-	-	2,607	8,076	-	25,864
417	-	-	-	-	246	-	28,714
4,029	-	-	197	1,368	10,062	-	18,655
4,027	-	-	197	1,368	9,914	-	16,491
3	-	-	-	-	148	-	2,165
-	-	-	-	-	-	-	-
617	-	-	-	-	-	-	3,848

## Brunei Darussalam, 2009

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	-	-	9,284	18
2 Import	-	-	17	93
3 Export	-	-	-8,369	-
4 International Marine Bunkers	-	-	-	-
5 International Aviation Bunkers	-	-	-	-86
6 Stock Change	-	-	-143	-2
7 Total Primary Energy Supply	-	-	788	22
8 Transfers	-	-	-	-
9 Main Activity Peoducer	-	-	-	-9
10 Autoproducers	-	-	-	-
11 Gas Processing	-	-	-	-
12 Petroleum Refineries	-	-	-769	637
13 Coal Transformation	-	-	-	-
14 Other Transformation	-	-	-	-
15 Loss & Own Use	-	-	-	-16
16 Discrepancy	-	-	-19	11
17 Total Final Energy Consumption	-	-	-	646
18 Industry Sector	-	-	-	161
19 Transport Sector	-	-	-	352
20 Other Sector	-	-	-	130
20.1 Residential & Commercial	-	-	-	18
20.2 Agriculture	-	-	-	0
20.3 Other	-	-	-	112
21 Non Energy	-	-	-	3

## Canada, 2009

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	31,460	-	156,886	-
2 Import	7,725	508	40,797	12,024
3 Export	-16,925	-49	-100,103	-20,796
4 International Marine Bunkers	-	-	-	-471
5 International Aviation Bunkers	-	-	-	-682
6 Stock Change	821	284	193	626
7 Total Primary Energy Supply	23,081	743	97,772	-9,299
8 Transfers	-	-	-2,325	5,834
9 Main Activity Peoducer	-19,179	-	-	-2,501
10 Autoproducers	-3	-16	-	-
11 Gas Processing	-	-	-	-
12 Petroleum Refineries	-	-	-93,168	100,206
13 Coal Transformation	-2,060	810	-	-
14 Other Transformation	-	-	785	-
15 Loss & Own Use	-54	-	-	-9,790
16 Discrepancy	-465	-565	-3,064	2,181
17 Total Final Energy Consumption	1,320	972	-	86,630
18 Industry Sector	1,291	972	-	4,362
19 Transport Sector	-	-	-	52,713
20 Other Sector	29	-	-	11,924
20.1 Residential & Commercial	29	-	-	9,901
20.2 Agriculture	-	-	-	2,023
20.3 Other	-	-	-	-
21 Non Energy	-	-	-	17,631

Unit: ktoe							
Natural Gas. LNG	Hydro	Nuclear	Geothermal. Solar, etc.	Others	Electricity	Heat	Total
10,604	-	-	-	-	-	-	19,905
-	-	-	-	-	-	-	109
-8,735	-	-	-	-	-	-	-17,104
-	-	-	-	-	-	-	-86
-	-	-	-	-	-	-	-145
1,868	-	-	-	-	-	-	2,679
-	-	-	-	-	-	-	-
-1,099	-	-	-	-	281	-	-826
-886	-	-	-	-	29	-	-856
521	-	-	-	-	-	-	521
-	-	-	-	-	-	-	-132
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-457	-	-	-	-	-32	-	-504
82	-	-	-	-	-0	-	74
30	-	-	-	-	279	-	955
-	-	-	-	-	48	-	209
-	-	-	-	-	-	-	352
26	-	-	-	-	231	-	387
26	-	-	-	-	168	-	212
-	-	-	-	-	-	-	0
-	-	-	-	-	63	-	175
3	-	-	-	-	-	-	7

Unit: ktoe							
Natural Gas. LNG	Hydro	Nuclear	Geothermal. Solar, etc.	Others	Electricity	Heat	Total
135,288	31,301	23,563	402	11,542	-	-	390,442
17,066	-	-	-	264	1,562	-	79,946
-78,677	-	-	-	-434	-4,449	-	-221,433
-	-	-	-	-	-	-	-471
-	-	-	-	-	-	-	-682
5,006	-	-	-	-	-	-	6,930
78,683	31,301	23,563	402	11,372	-2,888	-	254,730
-	-	-	-	-	-	-	3,509
-6,936	-28,601	-23,563	-402	-11	47,828	663	-32,702
-1,337	-2,700	-	-	-1,595	4,050	50	-1,550
-1,962	-	-	-	-	-	-	-1,962
-	-	-	-	-	-	-	7,037
-	-	-	-	-	-	-	-1,250
-589	-	-	-	-783	-	-	-587
-14,583	-	-	-	-1	-7,934	-0	-32,363
1,434	-	-	-	0	0	-50	-530
54,711	-	-	-	8,981	41,056	663	194,334
23,991	-	-	-	6,974	13,715	617	51,922
2,722	-	-	-	-	314	-	55,749
25,645	-	-	-	2,007	27,027	46	66,678
25,132	-	-	-	2,007	26,194	45	63,306
514	-	-	-	0	833	1	3,372
-	-	-	-	-	-	-	-
2,353	-	-	-	-	-	-	19,984

## Chile, 2009

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	352	-	672	-
2 Import	3,335	-	10,696	6,689
3 Export	-	-	-	-1,117
4 International Marine Bunkers	-	-	-	-816
5 International Aviation Bunkers	-	-	-	-439
6 Stock Change	-49	-	68	211
7 Total Primary Energy Supply	3,639	-	11,437	4,528
8 Transfers	-	-	1,079	-919
9 Main Activity Peoducer	-2,604	-	-	-2,362
10 Autoproducers	-	-	-	-49
11 Gas Processing	-	-	-	-
12 Petroleum Refineries	-	-	-14,108	10,272
13 Coal Transformation	-404	198	-	-6
14 Other Transformation	-	-	-	-
15 Loss & Own Use	-5	-115	-	-860
16 Discrepancy	-491	13	1,593	1,476
17 Total Final Energy Consumption	134	96	-	12,080
18 Industry Sector	124	96	-	3,376
19 Transport Sector	-	-	-	6,777
20 Other Sector	10	-	-	1,426
20.1 Residential & Commercial	3	-	-	1,280
20.2 Agriculture	-	-	-	-
20.3 Other	7	-	-	145
21 Non Energy	-	-	-	502

## China, 2009

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	1,557,291	-	189,490	-
2 Import	72,637	-	203,653	47,771
3 Export	-11,866	-	-5,073	-28,229
4 International Marine Bunkers	-	-	-	-1,130
5 International Aviation Bunkers	-	-	-	-4,389
6 Stock Change	-34,029	-15,266	-6,765	-
7 Total Primary Energy Supply	1,584,033	-15,266	381,305	14,023
8 Transfers	-	-	-	-
9 Main Activity Peoducer	-713,784	-547	-	-
10 Autoproducers	-68,894	-3,719	-64	-8,902
11 Gas Processing	-6,645	-1,090	-	-3
12 Petroleum Refineries	-	-	-371,094	358,643
13 Coal Transformation	-253,244	88,664	-	-
14 Other Transformation	-	-	-	-
15 Loss & Own Use	-77,997	-3,125	-6,410	-6,931
16 Discrepancy	-50,891	-994	-352	-9,798
17 Total Final Energy Consumption	412,577	63,923	3,385	347,032
18 Industry Sector	325,395	58,999	2,298	91,860
19 Transport Sector	4,207	1	-	132,489
20 Other Sector	82,975	4,924	-	76,880
20.1 Residential & Commercial	64,874	4,464	-	39,608
20.2 Agriculture	8,026	303	-	13,367
20.3 Other	10,076	156	-	23,905
21 Non Energy	-	-	1,088	45,803

Unit: ktoe							
Natural Gas. LNG	Hydro	Nuclear	Geothermal. Solar, etc.	Others	Electricity	Heat	Total
993	2,165	-	7	5,051	-	-	9,241
1,228	-	-	-	-	116	-	22,064
-	-	-	-	-	-	-	-1,117
-	-	-	-	-	-	-	-816
-	-	-	-	-	-	-	-439
15	-	-	-	-	-	-	246
2,236	2,165	-	7	5,051	116	-	29,178
-	-	-	-	-	-	-	159
-726	-2,133	-	-7	-39	4,814	-	-3,057
-15	-32	-	-	-694	461	-	-329
-695	-	-	-	-	-	-	-695
-	-	-	-	-	-	-	-3,836
-	-	-	-	-	-	-	-212
-	-	-	-	-19	-	-	-19
-18	-	-	-	-	-769	-	-1,767
-104	0	-	-	12	12	-	2,512
679	-	-	-	4,312	4,633	-	21,935
132	-	-	-	1,496	3,133	-	8,356
20	-	-	-	-	36	-	6,834
527	-	-	-	2,816	1,464	-	6,243
522	-	-	-	2,816	1,450	-	6,072
-	-	-	-	-	-	-	-
5	-	-	-	-	14	-	172
-	-	-	-	-	-	-	502

Unit: ktoe							
Natural Gas. LNG	Hydro	Nuclear	Geothermal. Solar, etc.	Others	Electricity	Heat	Total
79,385	52,945	18,277	-	-	-	-	1,897,388
7,107	-	-	-	-	517	-	331,685
-2,988	-	-	-	-	-1,495	-	-49,650
-	-	-	-	-	-	-	-1,130
-	-	-	-	-	-	-	-4,389
-	-	-	-	-	-	-	-56,060
83,505	52,945	18,277	-	-	-979	-	2,117,844
-	-	-	-	-	-	-	-
-368	-	-18,277	-	-	298,656	35,812	-398,507
-20,253	-	-	-	-	20,804	28,357	-52,673
88,590	-	-	-	-	-	-	80,852
-	-	-	-	-	-	-	-12,451
-	-	-	-	-	-	-	-164,579
-	-	-	-	-	-	-	-
-14,689	-52,945	-	-	-	-50,815	-9,064	-221,977
-192	-	-	-	-	-5,866	-782	-68,874
136,593	-	-	-	-	261,801	54,322	1,279,634
102,837	-	-	-	-	177,389	35,783	794,561
7,598	-	-	-	-	5,306	-	149,602
26,157	-	-	-	-	79,106	18,539	288,580
23,956	-	-	-	-	51,677	16,826	201,405
-	-	-	-	-	8,083	20	29,799
2,201	-	-	-	-	19,346	1,693	57,377
-	-	-	-	-	-	-	46,891

## Hong Kong, China, 2009

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	-	-	-	-
2 Import	7,767	-	-	19,318
3 Export	-0	-	-	-778
4 International Marine Bunkers	-	-	-	-9,947
5 International Aviation Bunkers	-	-	-	-4,769
6 Stock Change	-613	-	-	-835
7 Total Primary Energy Supply	7,154	-	-	2,988
8 Transfers	-	-	-	-
9 Main Activity Peoducer	-7,154	-	-	-45
10 Autoproducers	-	-	-	-
11 Gas Processing	-	-	-	-288
12 Petroleum Refineries	-	-	-	-
13 Coal Transformation	-	-	-	-
14 Other Transformation	-	-	-	-
15 Loss & Own Use	-	-	-	-
16 Discrepancy	-0	-	-	-32
17 Total Final Energy Consumption	0	-	-	2,623
18 Industry Sector	0	-	-	308
19 Transport Sector	-	-	-	2,095
20 Other Sector	-	-	-	220
20.1 Residential & Commercial	-	-	-	220
20.2 Agriculture	-	-	-	-
20.3 Other	-	-	-	-
21 Non Energy	-	-	-	-

## Indonesia, 2009

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	150,835	-	53,314	1,118
2 Import	40	-	18,284	18,856
3 Export	-116,424	-	-20,376	-
4 International Marine Bunkers	-	-	-	-
5 International Aviation Bunkers	-	-	-	-
6 Stock Change	-1,647	-	976	-
7 Total Primary Energy Supply	32,805	-	52,198	19,973
8 Transfers	-	-	-	-
9 Main Activity Peoducer	-21,503	-	-	-8,188
10 Autoproducers	-	-	-	-
11 Gas Processing	-	-	-	-
12 Petroleum Refineries	-	-	-50,975	40,971
13 Coal Transformation	-36	29	-	-
14 Other Transformation	-	-	-	-
15 Loss & Own Use	-	-	-	-78
16 Discrepancy	-	-0	-1,223	-2,062
17 Total Final Energy Consumption	11,265	29	-	50,616
18 Industry Sector	11,265	29	-	6,347
19 Transport Sector	-	-	-	30,711
20 Other Sector	-	-	-	10,383
20.1 Residential & Commercial	-	-	-	7,648
20.2 Agriculture	-	-	-	-
20.3 Other	-	-	-	2,735
21 Non Energy	-	-	-	3,175

Unit: ktoe							
Natural Gas. LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
-	-	-	0	65	-	-	65
2,293	-	-	-	7	997	-	30,381
-	-	-	-	-2	-321	-	-1,101
-	-	-	-	-	-	-	-9,947
-	-	-	-	-	-	-	-4,769
219	-	-	-	-	-	-	-1,229
2,512	-	-	0	69	676	-	13,400
-	-	-	-	-	-	-	-
-1,861	-	-	-	-	3,551	-	-5,509
-	-	-	-	-12	12	-	0
-	-	-	-	-	-	-	-288
-	-	-	-	-	-	-	-
-	-	-	-	-16	-	-	-16
-	-	-	-	-	-229	-	-229
-0	-	-	-0	-0	-438	-	-470
651	-	-	0	41	3,572	-	6,887
22	-	-	-	37	270	-	636
630	-	-	0	4	60	-	2,155
630	-	-	0	4	3,242	-	4,096
630	-	-	-	4	3,242	-	4,096
-	-	-	-	-	-	-	-
-	-	-	0	-	-	-	0
-	-	-	-	-	-	-	-

Unit: ktoe							
Natural Gas. LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
77,022	954	-	7,244	-	-	-	290,486
-	-	-	-	-	-	-	37,181
-32,180	-	-	-	-	-	-	-168,980
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-671
44,842	954	-	7,244	-	-	-	158,016
-	-	-	-	-	-	-	-
-8,674	-954	-	-7,244	-	13,074	-	-33,489
-	-	-	-	-	-	-	-
-6,406	-	-	-	-	-	-	-6,406
-	-	-	-	-	-	-	-10,005
-	-	-	-	-	-	-	-7
-	-	-	-	-	-	-	-
-13,420	-	-	-	-	-1,294	-	-14,792
2,344	-	-	-	-	-196	-	-1,136
18,688	-	-	-	-	11,584	-	92,182
15,509	-	-	-	-	3,974	-	37,124
8	-	-	-	-	10	-	30,729
121	-	-	-	-	7,600	-	18,104
121	-	-	-	-	7,600	-	15,369
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	2,735
3,051	-	-	-	-	-	-	6,226

## Japan, 2009

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	654	-	798	-
2 Import	98,216	219	182,823	39,163
3 Export	-	-580	-	-18,374
4 International Marine Bunkers	-	-	-	-4,980
5 International Aviation Bunkers	-	-	-	-5,254
6 Stock Change	150	-	2,189	1,903
7 Total Primary Energy Supply	99,019	-360	185,809	12,458
8 Transfers	-	-	-	-
9 Main Activity Producer	-43,966	-3,368	-3,352	-8,474
10 Auto Producers	-8,939	-2,513	-	-8,537
11 Gas Processing	-	-	-	-875
12 Petroleum Refineries	-	-	-187,486	191,842
13 Coal Transformation	-33,717	30,257	-	-636
14 Other Transformation	-	-	5,129	-5,205
15 Loss & Own Use	-299	-2,711	-	-11,703
16 Discrepancy	448	-2,789	-100	-3,159
17 Total Final Energy Consumption	12,546	18,517	-	165,711
18 Industry Sector	12,546	17,972	-	54,338
19 Transport Sector	-	-	-	76,662
20 Other Sector	-	545	-	30,567
20.1 Residential & Commercial	-	545	-	25,197
20.2 Agriculture	-	-	-	3,668
20.3 Other	-	-	-	1,703
21 Non Energy	-	-	-	4,144

## Republic of Korea, 2009

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	1,159	-	692	2,726
2 Import	62,744	179	117,637	31,641
3 Export	-	-	-325	-44,005
4 International Marine Bunkers	-	-	-	-8,398
5 International Aviation Bunkers	-	-	-	-3,689
6 Stock Change	762	-	-2,998	35
7 Total Primary Energy Supply	64,665	179	115,006	-21,691
8 Transfers	-	-	79	-81
9 Main Activity Producer	-43,601	-	-	-3,572
10 Auto Producers	-2,027	-2,306	-	-373
11 Gas Processing	-	-	-	-
12 Petroleum Refineries	-	-	-125,448	120,283
13 Coal Transformation	-15,545	7,741	-	-
14 Other Transformation	-	-	234	-44
15 Loss & Own Use	-	-1,852	-24	-5,321
16 Discrepancy	518	-1	10,153	-9,260
17 Total Final Energy Consumption	4,010	3,762	-	79,941
18 Industry Sector	4,010	2,869	-	5,831
19 Transport Sector	-	-	-	28,220
20 Other Sector	-	893	-	9,261
20.1 Residential & Commercial	-	893	-	6,328
20.2 Agriculture	-	-	-	1,145
20.3 Other	-	-	-	1,789
21 Non Energy	-	-	-	36,629

Unit: ktoe							
Natural Gas. LNG	Hydro	Nuclear	Geothermal. Solar, etc.	Others	Electricity	Heat	Total
3,326	7,089	71,574	3,260	7,319	-	-	94,020
75,778	-	-	-	-	-	-	396,200
-	-	-	-	-	-	-	-18,954
-	-	-	-	-	-	-	-4,980
-	-	-	-	-	-	-	-5,254
15	-	-	-	-	-	-	4,256
79,120	7,089	71,574	3,260	7,319	-	-	465,288
-	-	-	-	-	-	-	-
-49,089	-6,538	-71,574	-2,436	-1,351	78,168	809	-111,171
-3,119	-551	-	-369	-6,565	15,804	-	-14,779
971	-	-	-	-	-	-	96
-	-	-	-	-	-	-	4,357
-	-	-	-	-	-	-	-4,095
-	-	-	-	-	-	-	-76
-3,396	-	-	-	-	-10,925	-	-29,034
2,902	0	-	0	2,717	-750	-77	-807
27,389	-	-	455	2,131	82,297	732	309,778
13,018	-	-	-	2,109	32,607	-	132,590
-	-	-	-	-	1,802	-	78,464
14,371	-	-	455	22	47,889	732	94,581
14,371	-	-	455	22	47,595	658	88,842
-	-	-	-	-	294	74	4,036
-	-	-	-	-	-	-	1,703
-	-	-	-	-	-	-	4,144

Unit: ktoe							
Natural Gas. LNG	Hydro	Nuclear	Geothermal. Solar, etc.	Others	Electricity	Heat	Total
449	485	38,509	160	2,959	-	-	47,139
30,212	-	-	-	21	-	-	242,433
-	-	-	-	-	-	-	-44,330
-	-	-	-	-	-	-	-8,398
-	-	-	-	-	-	-	-3,689
1,053	-	-	-	-	-	-	-1,147
31,713	485	38,509	160	2,980	-	-	232,007
-	-	-	-	-	-	-	-1
-11,987	-485	-38,509	-103	-117	37,033	1,491	-59,850
-407	-	-	-5	-491	2,054	3,061	-494
224	-	-	-	-	-	-	224
-	-	-	-	-	-	-	-5,165
-	-	-	-	-	-	-	-7,804
-	-	-	-	-150	-	-	40
-574	-	-	-	-	-4,214	-117	-12,103
-846	-	-	-	-0	17	2	583
18,122	-	-	53	2,223	34,890	4,437	147,438
5,632	-	-	1	1,742	17,142	2,703	39,930
895	-	-	-	-	187	-	29,302
11,595	-	-	52	481	17,561	1,734	41,577
11,591	-	-	52	481	16,775	1,734	37,853
4	-	-	-	-	626	-	1,774
-	-	-	-	-	161	-	1,949
-	-	-	-	-	-	-	36,629

## Malaysia, 2009

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	1,171	-	32,869	1,902
2 Import	7,797	-	5,787	6,180
3 Export	-102	-	-12,378	-7,825
4 International Marine Bunkers	-	-	-	-
5 International Aviation Bunkers	-	-	-	-
6 Stock Change	164	-	41	-
7 Total Primary Energy Supply	9,030	-	26,319	258
8 Transfers	-	-	-	-
9 Main Activity Producer	-7,698	-	-	-589
10 Autoproducers	-	-	-	-92
11 Gas Processing	-	-	-	-
12 Petroleum Refineries	-	-	-26,505	18,228
13 Coal Transformation	-	-	-	-
14 Other Transformation	-	-	142	-
15 Loss & Own Use	-	-	-	-2,868
16 Discrepancy	47	-	43	7,820
17 Total Final Energy Consumption	1,378	-	-	22,757
18 Industry Sector	1,378	-	-	4,433
19 Transport Sector	-	-	-	15,853
20 Other Sector	-	-	-	597
20.1 Residential & Commercial	-	-	-	408
20.2 Agriculture	-	-	-	189
20.3 Other	-	-	-	-
21 Non Energy	-	-	-	1,873

## Mexico, 2009

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	5,063	-	151,795	-
2 Import	2,835	132	502	24,439
3 Export	-3	-	-67,633	-10,151
4 International Marine Bunkers	-	-	-	-775
5 International Aviation Bunkers	-	-	-	-2,686
6 Stock Change	-73	-207	436	329
7 Total Primary Energy Supply	7,823	-75	85,100	11,158
8 Transfers	-	-	-10,719	11,870
9 Main Activity Producer	-6,341	-	-	-10,608
10 Autoproducers	-	-103	-	-
11 Gas Processing	-	-	-	-
12 Petroleum Refineries	-	-	-74,512	71,419
13 Coal Transformation	-1,370	1,007	-	-
14 Other Transformation	-	-	-	-
15 Loss & Own Use	-	-67	-	-6,733
16 Discrepancy	-0	214	131	-4,602
17 Total Final Energy Consumption	112	975	-	72,502
18 Industry Sector	112	975	-	6,183
19 Transport Sector	-	-	-	50,365
20 Other Sector	-	-	-	10,700
20.1 Residential & Commercial	-	-	-	7,903
20.2 Agriculture	-	-	-	2,797
20.3 Other	-	-	-	-
21 Non Energy	-	-	-	5,254

Unit: ktoe							
Natural Gas. LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
47,588	574	-	1	365	-	-	84,469
4,329	-	-	-	-	1	-	24,095
22,314	-	-	-	-145	-9	-	-42,772
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	205
29,603	574	-	1	219	-8	-	65,996
-	-	-	-	-	-	-	-
-11,467	-574	-	-1	-26	8,546	-	-11,809
-1,186	-	-	-	-197	665	-	-810
-6,522	-	-	-	-	-	-	-6,522
-	-	-	-	-	-	-	-8,277
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	142
-4,602	-	-	-	-	-798	-	-8,268
-0	-	-	-	3	-123	-	7,791
5,826	-	-	-	-	8,283	-	38,244
3,891	-	-	-	-	3,717	-	13,419
202	-	-	-	-	11	-	16,066
23	-	-	-	-	4,555	-	5,175
23	-	-	-	-	4,534	-	4,966
-	-	-	-	-	21	-	210
-	-	-	-	-	-	-	-
1,709	-	-	-	-	-	-	3,582

Unit: ktoe							
Natural Gas. LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
38,407	2,297	2,737	6,010	8,383	-	-	214,691
10,777	-	-	-	-	30	-	38,714
-588	-	-	-	-	-107	-	-78,481
-	-	-	-	-	-	-	-775
-	-	-	-	-	-	-	-2,686
-65	-	-	-	-	-	-	420
48,530	2,297	2,737	6,010	8,383	-78	-	171,885
-	-	-	-	-	-	-	1,150
-20,891	-2,274	-2,737	-5,818	-	20,219	-	-28,451
-2,842	-23	-	-31	-1,130	2,228	-	-1,902
613	-	-	-	-	-	-	613
-	-	-	-	-	-	-	-3,094
-	-	-	-	-	-	-	-363
-	-	-	-	-	-	-	-
-13,145	-	-	-	-	-5,229	-	-25,174
-460	-	-	0	-0	153	-	-4,563
11,805	-	-	161	7,252	17,294	-	110,102
8,247	-	-	7	1,027	9,288	-	25,840
13	-	-	-	-	96	-	50,474
896	-	-	154	6,225	7,910	-	25,884
896	-	-	154	6,225	6,073	-	21,250
-	-	-	-	-	800	-	3,597
-	-	-	-	-	1,037	-	1,037
2,649	-	-	-	-	-	-	7,904

## New Zealand, 2009

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	2,661	-	2,702	-
2 Import	361	-	4,814	2,224
3 Export	-1,481	-	-2,338	-210
4 International Marine Bunkers	-	-	-	-341
5 International Aviation Bunkers	-	-	-	-737
6 Stock Change	-73	-	-54	32
7 Total Primary Energy Supply	1,468	-	5,124	969
8 Transfers	-	-	-76	79
9 Main Activity Peoducer	-627	-	-	-2
10 Autoproducers	-7	-157	-	-
11 Gas Processing	-	-	-	-
12 Petroleum Refineries	-	-	-5,169	5,255
13 Coal Transformation	-373	242	-	-
14 Other Transformation	-	-	2	-
15 Loss & Own Use	-3	-50	-	-354
16 Discrepancy	47	0	119	-130
17 Total Final Energy Consumption	504	35	-	5,818
18 Industry Sector	418	35	-	392
19 Transport Sector	0	-	-	4,565
20 Other Sector	85	-	-	566
20.1 Residential & Commercial	68	-	-	160
20.2 Agriculture	17	-	-	305
20.3 Other	-	-	-	102
21 Non Energy	-	-	-	294

## Papua New Guinea, 2009

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	-	-	2,018	-
2 Import	-	-	753	690
3 Export	-	-	-1,943	-
4 International Marine Bunkers	-	-	-	-
5 International Aviation Bunkers	-	-	-	-
6 Stock Change	-	-	69	-47
7 Total Primary Energy Supply	-	-	897	643
8 Transfers	-	-	-	-1
9 Main Activity Peoducer	-	-	-	-94
10 Autoproducers	-	-	-	-479
11 Gas Processing	-	-	-	-
12 Petroleum Refineries	-	-	-825	841
13 Coal Transformation	-	-	-	-
14 Other Transformation	-	-	-	-
15 Loss & Own Use	-	-	-	-25
16 Discrepancy	-	-	-68	-0
17 Total Final Energy Consumption	-	-	4	885
18 Industry Sector	-	-	4	426
19 Transport Sector	-	-	-	404
20 Other Sector	-	-	-	54
20.1 Residential & Commercial	-	-	-	-
20.2 Agriculture	-	-	-	-
20.3 Other	-	-	-	54
21 Non Energy	-	-	-	-

Unit: ktoe							
Natural Gas. LNG	Hydro	Nuclear	Geothermal. Solar, etc.	Others	Electricity	Heat	Total
3,548	2,083	-	4,505	1,095	-	-	16,593
-	-	-	-	-	-	-	7,399
-	-	-	-	-	-	-	-4,028
-	-	-	-	-	-	-	-341
-	-	-	-	-	-	-	-737
-88	-	-	-	-	-	-	-183
3,460	2,083	-	4,505	1,095	-	-	18,704
-	-	-	-	-	-	-	3
-1,419	-2,082	-	-4,262	-30	3,597	-	-4,826
-123	-1	-	-	-118	142	36	-228
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	86
-	-	-	-	-	-	-	-131
-	-	-	-	-2	-	-	0
-245	-	-	-	-	-428	-	-1,080
31	0	-	-	-0	-54	-36	-24
1,704	-	-	243	944	3,256	-	12,504
860	-	-	151	795	1,146	-	3,798
1	-	-	-	-	9	-	4,575
316	-	-	92	149	2,101	-	3,310
277	-	-	75	149	1,897	-	2,626
39	-	-	17	-	144	-	523
-	-	-	-	-	60	-	162
526	-	-	-	-	-	-	821

Unit: ktoe							
Natural Gas. LNG	Hydro	Nuclear	Geothermal. Solar, etc.	Others	Electricity	Heat	Total
338	73	-	320	-	-	-	2,749
-	-	-	-	-	-	-	1,443
-	-	-	-	-	-	-	-1,943
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	22
338	73	-	320	-	-	-	2,270
-	-	-	-	-	-	-	-1
-	-43	-	-	-	66	-	-70
-118	-31	-	-320	-	230	-	-718
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	16
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-220	-	-	-	-	-24	-	-270
-	-0	-	-	-	1	-	-67
-	-	-	-	-	273	-	1,162
-	-	-	-	-	199	-	629
-	-	-	-	-	-	-	404
-	-	-	-	-	74	-	128
-	-	-	-	-	-	-	-
-	-	-	-	-	74	-	128
-	-	-	-	-	-	-	-

## Peru, 2009

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	225	-	6,733	-
2 Import	531	22	5,024	1,176
3 Export	-	-	-1,011	-3,362
4 International Marine Bunkers	-	-	-	-
5 International Aviation Bunkers	-	-	-	-
6 Stock Change	42	8	45	-1,251
7 Total Primary Energy Supply	799	30	10,792	-3,437
8 Transfers	-	-	-1,269	3,062
9 Main Activity Producer	-258	-	-	-344
10 Autoproducers	-	-	-	-169
11 Gas Processing	-	-	-	-
12 Petroleum Refineries	-	-	-9,571	9,338
13 Coal Transformation	-	-	-	-
14 Other Transformation	-	-	-	-
15 Loss & Own Use	-	-	-	-354
16 Discrepancy	9	0	48	59
17 Total Final Energy Consumption	550	30	-	8,157
18 Industry Sector	550	30	-	1,470
19 Transport Sector	-	-	-	5,245
20 Other Sector	-	-	-	1,158
20.1 Residential & Commercial	-	-	-	909
20.2 Agriculture	-	-	-	30
20.3 Other	-	-	-	219
21 Non Energy	-	-	-	284

## Philippines, 2009

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	2,474	-	962	-
2 Import	3,888	-	6,772	7,261
3 Export	-1,052	-	-257	-492
4 International Marine Bunkers	-	-	-	-198
5 International Aviation Bunkers	-	-	-	-976
6 Stock Change	-	-	428	-159
7 Total Primary Energy Supply	5,310	-	7,905	5,436
8 Transfers	-	-	-	-
9 Main Activity Producer	-4,442	-	-	-1,178
10 Autoproducers	-	-	-	-
11 Gas Processing	-	-	-	-
12 Petroleum Refineries	-	-	-6,940	6,917
13 Coal Transformation	-	-	-	-
14 Other Transformation	-	-	114	-
15 Loss & Own Use	-	-	-	-
16 Discrepancy	757	-	-1,079	198
17 Total Final Energy Consumption	1,624	-	-	11,373
18 Industry Sector	1,624	-	-	1,340
19 Transport Sector	-	-	-	7,952
20 Other Sector	-	-	-	1,969
20.1 Residential & Commercial	-	-	-	1,764
20.2 Agriculture	-	-	-	22
20.3 Other	-	-	-	183
21 Non Energy	-	-	-	112

Unit: ktoe							
Natural Gas. LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
3,510	1,708	-	7	255	-	-	12,439
-	-	-	-	49	-	-	6,803
-	-	-	-	-	-5	-	-4,378
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-1,155
3,510	1,708	-	7	304	-5	-	13,708
-	-	-	-	-	-	-	1,794
-2,014	-1,668	-	-	-	2,636	-	-1,647
-85	-41	-	-7	-158	204	-	-255
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-232
-	-	-	-	-	-	-	-
-	-	-	-	-145	-	-	-145
-720	-	-	-	-	-274	-	-1,348
78	-	-	-	-1	0	-	193
769	-	-	-	-	2,561	-	12,067
489	-	-	-	-	1,401	-	3,941
220	-	-	-	-	-	-	5,464
60	-	-	-	-	1,160	-	2,378
36	-	-	-	-	1,160	-	2,104
-	-	-	-	-	-	-	30
24	-	-	-	-	-	-	243
-	-	-	-	-	-	-	284

Unit: ktoe							
Natural Gas. LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
3,214	842	-	8,884	6,896	-	-	23,271
-	-	-	-	44	-	-	17,965
-	-	-	-	-	-	-	-1,802
-	-	-	-	-	-	-	-198
-	-	-	-	-	-	-	-976
-	-	-	-	-	-	-	269
3,214	842	-	8,884	6,939	-	-	38,530
-2,966	-842	-	-8,884	-6	5,325	-	-12,994
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-24
-	-	-	-	-	-	-	-
-	-	-	-	-1,455	-	-	-1,341
-177	-	-	-	-	-303	-	-480
-0	-	-	-	3	-645	-	-766
70	-	-	-	5,481	4,377	-	22,926
70	-	-	-	1,322	1,469	-	5,826
0	-	-	-	-	10	-	7,962
-	-	-	-	4,159	2,898	-	9,026
-	-	-	-	4,159	2,777	-	8,700
-	-	-	-	-	107	-	129
-	-	-	-	-	15	-	197
-	-	-	-	-	-	-	112

## Russia, 2009

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	153,640	-	493,645	-
2 Import	14,379	152	1,793	808
3 Export	-67,384	-1,288	-250,143	-101,096
4 International Marine Bunkers	-	-	-	-
5 International Aviation Bunkers	-	-	-	-5,858
6 Stock Change	-4,309	81	-1,635	451
7 Total Primary Energy Supply	96,326	-1,055	243,659	-105,695
8 Transfers	-	-	-	-
9 Main Activity Peoducer	-51,348	-	-	-4,200
10 Autoproducers	-15,582	-4,790	-752	-6,924
11 Gas Processing	-	-	-	-
12 Petroleum Refineries	-	-	-247,177	236,275
13 Coal Transformation	-33,788	19,850	-	-
14 Other Transformation	-	-	-	-
15 Loss & Own Use	-575	-1,436	-3,090	-12,078
16 Discrepancy	10,670	-3	7,401	-1,180
17 Total Final Energy Consumption	5,702	12,566	41	106,199
18 Industry Sector	1,189	12,522	13	15,512
19 Transport Sector	-	-	-	55,017
20 Other Sector	4,513	45	28	9,923
20.1 Residential & Commercial	4,417	45	-	6,082
20.2 Agriculture	93	-	13	3,037
20.3 Other	3	-	15	803
21 Non Energy	-	-	-	25,747

## Singapore, 2009

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	-	-	-	-
2 Import	-	-	44,136	86,266
3 Export	-	-	-45	-73,550
4 International Marine Bunkers	-	-	-	-36,387
5 International Aviation Bunkers	-	-	-	-
6 Stock Change	-	-	-	-
7 Total Primary Energy Supply	-	-	44,091	-23,670
8 Transfers	-	-	-	-
9 Main Activity Peoducer	-	-	-	-1,499
10 Autoproducers	-	-	-	-
11 Gas Processing	-	-	-	-128
12 Petroleum Refineries	-	-	-44,091	38,740
13 Coal Transformation	-	-	-	-
14 Other Transformation	-	-	-	-
15 Loss & Own Use	-	-	-	-672
16 Discrepancy	-	-	-	0
17 Total Final Energy Consumption	-	-	-	12,771
18 Industry Sector	-	-	-	6,943
19 Transport Sector	-	-	-	5,578
20 Other Sector	-	-	-	-
20.1 Residential & Commercial	-	-	-	-
20.2 Agriculture	-	-	-	-
20.3 Other	-	-	-	-
21 Non Energy	-	-	-	250

Unit: ktoe							
Natural Gas. LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
-469,695	15,146	42,652	399	6,410	-	-	1,181,588
6,677	-	-	-	-	264	-	24,072
-131,248	-	-	-	-	-1,541	-	-552,699
-	-	-	-	-	-	-	-
5,270	-	-	-	-43	-	-	-5,858
350,395	15,146	42,652	399	6,367	-1,278	-	646,917
-	-	-	-	-	-	-	-
-128,839	-15,066	-42,652	-399	-	80,807	47,589	-114,108
-75,391	-80	-	-	-3,930	4,503	87,446	-15,499
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-10,902
-	-	-	-	-	-	-	-13,938
-1,390	-	-	-	-	-	-	-1,390
-16,234	-	-	-	-140	-24,997	-26,514	-85,064
2	-	0	-	-1	-20	0	16,869
128,542	-	-	-	2,296	59,016	108,521	422,883
29,407	-	-	-	367	26,782	38,752	124,544
27,617	-	-	-	-	6,984	-	89,617
45,219	-	-	-	1,929	25,251	69,769	156,676
44,334	-	-	-	1,608	23,929	67,031	147,445
884	-	-	-	320	1,299	2,697	8,343
2	-	-	-	0	23	41	888
26,299	-	-	-	-	-	-	52,046

Unit: ktoe							
Natural Gas. LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
-	-	-	-	121	-	-	121
6,233	-	-	-	-	-	-	136,636
-	-	-	-	-	-	-	-73,595
-	-	-	-	-	-	-	-36,387
-	-	-	-	-	-	-	-
6,233	-	-	-	121	-	-	26,775
-	-	-	-	-	-	-	-
-6,233	-	-	-	-121	3,595	-	-4,259
-	-	-	-	-	-	-	-
113	-	-	-	-	-	-	-15
-	-	-	-	-	-	-	-5,351
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-329	-	-1,001
-0	-	-	-	-	-36	-	-36
113	-	-	-	-	3,230	-	16,114
48	-	-	-	-	1,172	-	8,163
-	-	-	-	-	-	-	5,578
65	-	-	-	-	2,058	-	2,123
65	-	-	-	-	2,053	-	2,118
-	-	-	-	-	4	-	4
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	250

## Chinese Taipei, 2009

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	-	-	14	-
2 Import	36,018	73	49,643	15,059
3 Export	-	-25	-	-18,708
4 International Marine Bunkers	-	-	-	-1,648
5 International Aviation Bunkers	-	-	-	-1,754
6 Stock Change	850	-	351	-92
7 Total Primary Energy Supply	36,868	48	50,008	-7,143
8 Transfers	-	-	-	-808
9 Main Activity Peoducer	-22,158	-	-	-1,468
10 Autoproducers	-6,278	-381	-	-995
11 Gas Processing	-	-	-	-
12 Petroleum Refineries	-	-	-50,159	50,121
13 Coal Transformation	-3,984	2,200	-	-
14 Other Transformation	-	-	-	-
15 Loss & Own Use	-	-697	-	-1,877
16 Discrepancy	218	90	151	959
17 Total Final Energy Consumption	4,667	1,259	-	38,789
18 Industry Sector	4,667	1,259	-	3,798
19 Transport Sector	-	-	-	11,385
20 Other Sector	-	-	-	2,652
20.1 Residential & Commercial	-	-	-	2,329
20.2 Agriculture	-	-	-	4
20.3 Other	-	-	-	319
21 Non Energy	-	-	-	20,954

## Thailand, 2009

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	5,021	-	12,907	3,281
2 Import	4,915	5,354	43,148	431
3 Export	-1	-16	-2,261	-10,209
4 International Marine Bunkers	-	-	-	-
5 International Aviation Bunkers	-	-	-	-3,366
6 Stock Change	-2	-827	935	-1,113
7 Total Primary Energy Supply	9,933	4,511	54,729	-10,975
8 Transfers	-	-	-	-
9 Main Activity Peoducer	-6,687	-	-	-162
10 Autoproducers	-562	-	-	-146
11 Gas Processing	-	-	-	-
12 Petroleum Refineries	-	-	-49,252	40,238
13 Coal Transformation	-	-	-	-
14 Other Transformation	-	-	-	-424
15 Loss & Own Use	-	-	-	-
16 Discrepancy	-8	0	-358	2,217
17 Total Final Energy Consumption	2,676	4,511	5,119	30,747
18 Industry Sector	2,676	4,511	-	3,467
19 Transport Sector	-	-	-	19,647
20 Other Sector	-	-	-	6,434
20.1 Residential & Commercial	-	-	-	2,957
20.2 Agriculture	-	-	-	3,476
20.3 Other	-	-	-	-
21 Non Energy	-	-	5,119	1,199

Unit: ktoe							
Natural Gas. LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
281	693	10,833	145	1,835	-	-	13,801
11,062	-	-	-	-	-	-	111,855
-	-	-	-	-	-	-	-18,733
-	-	-	-	-	-	-	-1,648
-	-	-	-	-	-	-	-1,754
-63	-	-	-	-	-	-	1,046
11,280	693	10,833	145	1,835	-	-	104,568
-	-	-	-	-	-	-	-808
-7,985	-	-10,833	-	-	16,550	-	-25,894
-115	-	-	-	-1,835	3,203	-	-6,401
-1,423	-	-	-	-	-	-	-1,423
-	-	-	-	-	-	-	-39
-	-	-	-	-	-	-	-1,784
-	-	-	-	-	-	-	-
-404	-2	-	-0	-	-1,772	-	-4,752
479	-691	-	-43	-	-640	-	523
1,833	-	-	102	-	17,341	-	63,990
820	-	-	-	-	9,434	-	19,978
-	-	-	-	-	95	-	11,480
1,013	-	-	102	-	7,812	-	11,578
1,013	-	-	102	-	7,590	-	11,034
-	-	-	-	-	143	-	147
-	-	-	-	-	79	-	398
-	-	-	-	-	-	-	20,954

Unit: ktoe							
Natural Gas. LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
23,337	615	-	2	1,971	-	-	47,134
8,294	-	-	-	-	210	-	62,352
-	-	-	-	-	-134	-	-12,622
-	-	-	-	-	-	-	-3,366
-	-	-	-	-	-	-	-1,007
31,631	615	-	2	1,971	76	-	92,492
-	-	-	-	-	-	-	-
-20,307	-615	-	-2	-	11,477	-	-16,296
-2,444	-	-	-	-1,971	1,277	-	-3,846
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-9,014
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-424
-4,057	-	-	-	-	-1,250	-	-5,307
-0	-	-	-	-	48	-	1,899
4,822	-	-	-	-	11,628	-	59,503
2,346	-	-	-	-	4,874	-	17,873
1,280	-	-	-	-	5	-	20,932
0	-	-	-	-	6,749	-	13,183
0	-	-	-	-	6,662	-	9,620
-	-	-	-	-	27	-	3,504
-	-	-	-	-	60	-	60
1,196	-	-	-	-	-	-	7,515

## United States of America, 2009

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	530,133	-	337,238	-
2 Import	12,540	217	535,097	80,666
3 Export	-34,049	-817	-8,594	-91,623
4 International Marine Bunkers	-	-	-	-24,076
5 International Aviation Bunkers	-	-	-	-21,572
6 Stock Change	-23,134	87	-2,725	-4,041
7 Total Primary Energy Supply	485,490	-513	861,016	-60,646
8 Transfers	-	-	-25,656	26,617
9 Main Activity Producer	-436,870	-304	-	-9,307
10 Autoproducers	-2,503	-567	-	-478
11 Gas Processing	-1,944	-	-	-
12 Petroleum Refineries	-	-	-836,842	867,811
13 Coal Transformation	-10,843	3,742	-	-
14 Other Transformation	-	-	19,979	-
15 Loss & Own Use	-183	-989	-	-47,325
16 Discrepancy	-13,300	1	-18,497	-1,904
17 Total Final Energy Consumption	19,847	1,370	-	774,768
18 Industry Sector	18,259	1,370	-	27,411
19 Transport Sector	-	-	-	574,475
20 Other Sector	1,588	-	-	51,837
20.1 Residential & Commercial	1,588	-	-	37,872
20.2 Agriculture	-	-	-	13,964
20.3 Other	-	-	-	-
21 Non Energy	-	-	-	121,045

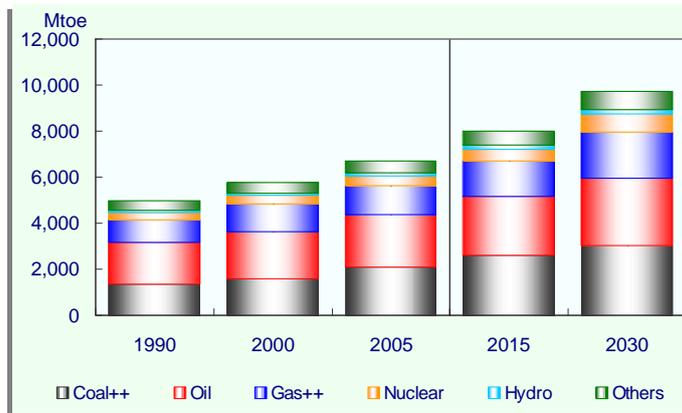
## Viet Nam, 2009

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	24,480	-	16,593	724
2 Import	448	60	-	14,806
3 Export	-13,995	-0	-13,614	-1,813
4 International Marine Bunkers	-	-	-	-
5 International Aviation Bunkers	-	-	-	-
6 Stock Change	1,652	-	-1,008	1,266
7 Total Primary Energy Supply	12,585	60	1,972	14,982
8 Transfers	-	-	-	-
9 Main Activity Producer	-3,560	-	-	-266
10 Autoproducers	-119	-	-	-380
11 Gas Processing	-	-	-	-
12 Petroleum Refineries	-	-	-1,972	1,515
13 Coal Transformation	-	-	-	-
14 Other Transformation	-	-	-	-
15 Loss & Own Use	-	-	-	-
16 Discrepancy	0	-	-0	-0
17 Total Final Energy Consumption	8,906	60	-	15,851
18 Industry Sector	7,446	60	-	2,146
19 Transport Sector	-	-	-	10,274
20 Other Sector	1,460	-	-	2,017
20.1 Residential & Commercial	1,439	-	-	1,499
20.2 Agriculture	21	-	-	518
20.3 Other	-	-	-	-
21 Non Energy	-	-	-	1,414

Unit: ktoe							
Natural Gas. LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
478,708	25,663	216,353	23,034	83,768	-	-	1,694,897
87,033	-	-	-	544	4,488	-	720,587
-24,634	-	-	-	-566	-1,560	-	-161,843
-	-	-	-	-	-	-	-24,076
-	-	-	-	-	-	-	-21,572
-6,748	-	-	-	-254	-	-	-36,815
534,359	25,663	216,353	23,034	83,492	2,929	-	2,171,177
-	-	-	-	-	-	-	960
-159,754	-25,493	-216,353	-21,307	-13,513	347,355	12,433	-523,114
-12,931	-170	-	-133	-5,660	12,831	-	-9,611
1,244	-	-	-	-	-	-	-700
-	-	-	-	-	-	-	30,969
-	-	-	-	-	-	-	-7,102
-	-	-	-	-21,810	-	-	-1,831
-46,234	-	-	-	-	-49,886	-5,639	-150,255
-4,602	-	-	-	60	-	-	-38,242
312,081	-	-	1,594	42,569	313,229	6,793	1,472,251
105,719	-	-	106	29,673	68,720	5,368	256,626
14,585	-	-	-	-	671	-	589,731
182,796	-	-	1,488	12,896	243,838	1,426	495,869
182,796	-	-	1,488	12,555	230,967	1,426	468,693
-	-	-	-	341	-	-	14,306
-	-	-	-	-	12,870	-	12,870
8,981	-	-	-	-	-	-	130,026

Unit: ktoe							
Natural Gas. LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
7,101	2,578	-	-	-	-	-	51,477
-	-	-	-	-	353	-	15,667
-	-	-	-	-	-32	-	-29,454
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	1,910
7,101	2,578	-	-	-	321	-	39,600
-	-	-	-	-	-	-	-
-6,243	-2,578	-	-	-	6,622	-	-6,026
-219	-	-	-	-	215	-	-504
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-458
-	-	-	-	-	-	-	-
-	-	-	-	-	-769	-	-769
0	-	-	-	-	227	-	227
639	-	-	-	-	6,616	-	32,071
639	-	-	-	-	3,434	-	13,724
-	-	-	-	-	-	-	10,274
-	-	-	-	-	3,182	-	6,659
-	-	-	-	-	3,122	-	6,060
-	-	-	-	-	60	-	599
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	1,414

## Primary Energy Supply Outlook by Energy



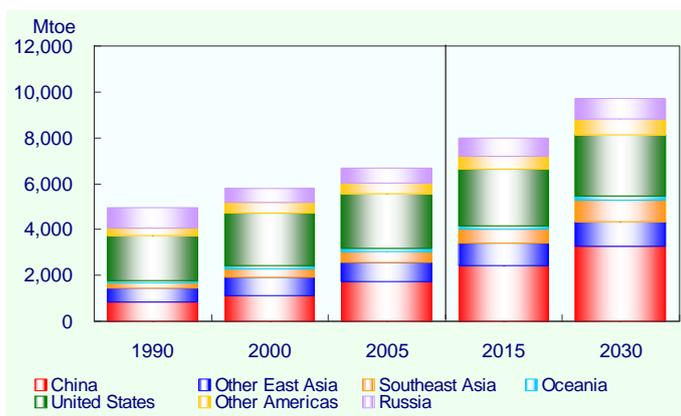
	1990	2000	2005	2015	Mtoe 2030
Coal++	1,367	1,572	2,110	2,596	3,011
Oil	1,793	2,054	2,260	2,544	2,927
Gas++	998	1,193	1,268	1,551	1,993
Nuclear	286	390	419	532	822
Hydro	92	108	125	166	191
Others	423	474	497	596	779
<b>Total</b>	<b>4,959</b>	<b>5,790</b>	<b>6,679</b>	<b>7,985</b>	<b>9,723</b>

	1990	2000	2005	2015	Share (%) 2030
Coal++	27.6	27.1	31.6	32.5	31.0
Oil	36.2	35.5	33.8	31.9	30.1
Gas++	20.1	20.6	19.0	19.4	20.5
Nuclear	5.8	6.7	6.3	6.7	8.5
Hydro	1.9	1.9	1.9	2.1	2.0
Others	8.5	8.2	7.4	7.5	8.0

By Asia Pacific Energy Research Centre, November 2009.

## Primary Energy Supply Outlook by Region



	Mtoe				
	1990	2000	2005	2015	2030
China	863	1,106	1,720	2,440	3,281
Other East Asia	596	814	865	956	1,045
Southeast Asia	236	382	471	598	946
Oceania	102	130	140	170	213
United States	1,926	2,303	2,342	2,472	2,641
Other Americas	357	441	494	569	723
Russia	879	615	648	779	875
<b>APEC 21</b>	<b>4,959</b>	<b>5,790</b>	<b>6,679</b>	<b>7,985</b>	<b>9,723</b>

	Share (%)				
	1990	2000	2005	2015	2030
China	17.4	19.1	25.8	30.6	33.7
Other East Asia	12.0	14.1	12.9	12.0	10.7
Southeast Asia	4.8	6.6	7.1	7.5	9.7
Oceania	2.1	2.2	2.1	2.1	2.2
United States	38.8	39.8	35.1	31.0	27.2
Other Americas	7.2	7.6	7.4	7.1	7.4
Russia	17.7	10.6	9.7	9.8	9.0

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.

## 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	
	1990	2000	2009	1990	2000	2009	1990	2000
APEC 21	2,280	2,543	2,717	14,338	19,505	24,080	16,163	22,689
East Asia and Russia	1,476	1,612	1,680	5,174	6,877	9,153	4,823	7,692
China	1,135.2	1,262.6	1,331.5	444.6	1,198.5	2,940.2	1,107.5	2,985.4
Hong Kong, China	5.7	6.7	7.0	115.2	169.1	234.8	119.8	176.0
Japan	123.5	126.9	127.6	4,150.3	4,667.4	4,817.3	2,890.1	3,250.3
Republic of Korea	42.9	47.0	48.7	295.6	533.4	753.8	448.0	808.4
Russia	148.3	146.3	141.9	385.9	259.7	398.3	1,485.3	999.7
Chinese Taipei	20.4	22.3	23.1	168.7	308.8	406.8	258.0	472.3
Southeast Asia	384.1	450.6	509.8	346.3	561.3	840.4	848	1,346
Brunei Darussalam	0.3	0.3	0.4	4.8	6.0	6.7	11.3	14.1
Indonesia	177.4	205.3	230.0	109.2	165.0	258.6	328.2	496.1
Malaysia	18.1	23.3	27.5	47.2	93.8	137.1	106.6	211.9
Philippines	62.4	77.7	92.0	61.1	81.0	119.9	139.4	184.8
Singapore	3.0	4.0	5.0	44.7	92.7	144.2	63.3	131.4
Thailand	56.7	62.3	67.8	79.4	122.7	173.9	199.0	307.7
Viet Nam	66.2	77.6	87.3	15.0	31.2	58.8	52.9	109.9
Oceania	24.6	28.4	32.9	318.7	441.8	578.2	430.7	596.8
Australia	17.1	19.2	21.9	276.3	384.9	506.0	363.3	506.1
New Zealand	3.4	3.9	4.3	40.1	53.4	67.5	61.1	81.4
Papua New Guinea	4.1	5.4	6.7	2.3	3.5	4.7	6.2	9.3
North America	277.4	312.9	340.7	7,608	10,624	12,204	7,719	10,773
Canada	27.8	30.8	33.7	543.6	724.9	846.8	655.5	874.1
United States of America	249.6	282.2	307.0	7,064	9,899	11,357	7,064	9,899
Latin America	118.2	139.4	153.6	489.9	710.0	847.5	803.6	1,171.2
Chile	13.2	15.4	17.0	40.4	75.2	103.0	76.8	142.7
Mexico	83.2	98.0	107.4	413.3	581.4	659.4	640.8	901.4
Peru	21.8	26.0	29.2	36.1	53.3	85.1	86.1	127.1

	Energy Indigenous Production			Net Import			Total Primary Energy Supply			
	Mtoe			Mtoe			Mtoe			
2009	1990	2000	2009	1990	2000	2009	1990	2000	2009	
31,024	4,637	4,889	6,388	150.4	626.2	639.6	4,634	5,453	6,793	
12,688	815	1,019	2,052	461.3	713.2	979.8	1,238	1,704	2,933	
7,324.0	705.8	865.5	1,897.4	-30.5	32.4	282.0	654.0	905.2	2,117.8	CHN
244.3	0.0	0.0	0.1	10.8	18.2	29.3	10.6	15.1	13.4	HKG
3,354.7	75.4	107.0	94.0	371.4	420.4	377.2	435.1	515.6	465.3	JPN
1,142.4	22.6	35.2	47.1	70.1	165.7	198.1	93.1	188.9	232.0	KOR
1,533.1	1,292.8	977.9	1,181.6	-412.6	-349.6	-528.6	877.8	619.2	646.9	RUS
622.2	10.7	11.5	13.8	39.4	76.4	93.1	45.5	79.0	104.6	TWN
2,017	210.3	329.1	465.4	-51.1	-29.8	-38.5	142.4	275.2	384.5	
15.7	15.3	17.4	19.9	-12.9	-14.8	-17.0	2.1	2.7	2.7	BRN
777.4	119.4	184.0	290.5	-65.9	-82.4	-131.8	53.3	101.2	158.0	IDN
309.8	46.5	79.5	84.5	-25.4	-27.4	-18.7	21.0	51.5	66.0	MYS
273.5	17.2	19.6	23.3	11.9	20.0	16.2	28.3	39.0	38.5	PHL
204.3	0.0	0.1	0.1	22.9	40.2	63.0	9.9	20.4	26.8	SGP
436.0	11.9	28.6	47.1	18.2	34.6	49.7	27.9	60.4	92.5	THA
207.5	5.8	25.8	51.5	-0.2	-9.8	-13.8	5.4	14.8	39.6	VNM
780.7	175.4	252.2	315.6	-66.1	-126.5	-160.0	101.7	126.7	147.9	
665.4	158.1	233.4	296.3	-64.5	-127.1	-162.9	86.8	108.0	126.9	AUS
102.9	12.7	14.9	16.6	2.1	3.4	3.4	14.0	17.6	18.7	NZL
12.5	4.6	3.9	2.7	-3.7	-2.7	-0.5	0.9	1.1	2.3	PNG
12,378	1,928	2,047	2,085	282.6	478.7	417.3	2,125	2,532	2,426	
1,021.1	273.7	373.9	390.4	-59.3	-127.7	-141.5	208.6	252.6	254.7	CAN
11,357	1,654.0	1,673.0	1,694.9	341.9	606.4	558.7	1,916.5	2,279.2	2,171.2	USA
1,420.6	210.3	238.3	236.4	-63.5	-50.0	-16.4	143.6	181.8	214.8	
195.6	7.4	8.2	9.2	7.0	18.3	20.9	13.6	25.7	29.2	CHL
1,022.3	194.7	222.3	214.7	-69.9	-71.6	-39.8	122.5	145.1	171.9	MEX
202.7	8.2	7.8	12.4	-0.6	3.3	2.4	7.5	11.0	13.7	PER

Energy Indicators

	Total Final Energy Consumption			Final Consumption of Electricity			Total Primary Energy Supply	
	Mtoe			TWh			toe / Person	
	1990	2000	2009	1990	2000	2009	1990	2000
APEC 21	3,236	3,729	4,394	5,840	7,841	10,530	2.03	2.14
East Asia	895.6	1,186.4	1,807.7	1,543.4	2,477.4	4,650.0	0.84	1.06
China	489.9	634.7	1,279.6	606.4	1,053.7	3,044.2	0.58	0.72
Hong Kong, China	6.7	11.2	6.9	23.8	36.3	41.5	1.87	2.26
Japan	304.8	359.9	309.8	744.8	964.1	956.9	3.52	4.06
Republic of Korea	64.9	127.1	147.4	94.4	263.1	405.7	2.17	4.02
Russia	625.0	418.8	422.9	826.6	608.5	686.2	5.92	4.23
Chinese Taipei	29.3	53.6	64.0	74.0	160.1	201.6	2.23	3.55
Southeast Asia	92.5	165.4	229.9	125.2	326.2	457.9	0.37	0.61
Brunei Darussalam	0.4	0.6	1.0	1.0	2.5	3.2	8.06	8.10
Indonesia	34.0	63.6	92.2	30.5	108.9	134.7	0.30	0.49
Malaysia	13.1	29.7	38.2	19.9	61.2	96.3	1.16	2.21
Philippines	19.5	23.5	22.9	21.2	36.6	50.9	0.45	0.50
Singapore	5.3	9.4	16.1	14.2	29.1	37.6	3.25	5.07
Thailand	20.2	38.7	59.5	38.3	87.9	135.2	0.49	0.97
Viet Nam	4.2	11.9	32.1	6.2	22.4	76.9	0.08	0.19
Oceania	66.8	83.3	90.7	159.1	209.3	254.8	4.13	4.46
Australia	56.5	69.6	77.1	129.2	172.8	213.8	5.09	5.64
New Zealand	9.7	12.8	12.5	28.2	34.2	37.9	4.06	4.57
Papua New Guinea	0.6	0.9	1.2	1.7	2.3	3.2	0.21	0.21
North America	1,450.4	1,734.8	1,666.6	3,051.7	3,981.1	4,119.6	7.66	8.09
Canada	158.8	189.2	194.3	418.1	481.6	477.4	7.51	8.21
United States of America	1,291.6	1,545.6	1,472.3	2,633.6	3,499.5	3,642.2	7.68	8.08
Latin America	101.6	128.5	144.1	127.5	216.3	284.8	1.22	1.30
Chile	11.2	21.1	21.9	15.5	36.8	53.9	1.03	1.67
Mexico	84.1	98.2	110.1	100.2	162.2	201.1	1.47	1.48
Peru	6.2	9.2	12.1	11.8	17.3	29.8	0.35	0.42

	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			
2009	1990	2000	2009	1990	2000	2009	1990	2000	2009		
2.50	323.2	279.6	282.1	286.7	240.4	215.6	1.42	1.47	1.62		
1.75	239.3	247.7	320.5	247.3	211.2	222.9	0.61	0.74	1.08		
1.59	1,471.0	755.3	720.3	590.5	303.2	289.2	0.43	0.50	0.96	CHN	
1.91	92.4	89.2	57.1	88.8	85.8	54.9	1.17	1.68	0.98	HKG	
3.65	104.8	110.5	96.6	150.5	158.6	138.7	2.47	2.84	2.43	JPN	
4.76	314.9	354.2	307.8	207.8	233.7	203.1	1.51	2.70	3.02	KOR	
4.56	2,274.7	2,384.0	1,624.2	591.0	619.4	422.0	4.21	2.86	2.98	RUS	
4.52	269.6	255.8	257.1	176.2	167.2	168.1	1.44	2.40	2.77	TWN	
0.75	411.3	490.3	457.5	168.0	204.5	190.7	0.24	0.37	0.45		
6.70	430.7	450.0	400.0	183.9	192.2	170.8	1.62	1.91	2.39	BRN	
0.69	487.9	613.5	611.1	162.3	204.0	203.2	0.19	0.31	0.40	IDN	
2.40	444.3	549.0	481.3	196.7	243.0	213.0	0.73	1.28	1.39	MYS	
0.42	463.3	480.9	321.4	203.1	210.8	140.9	0.31	0.30	0.25	PHL	
5.37	221.6	220.3	185.7	156.4	155.5	131.1	1.75	2.33	3.23	SGP	
1.36	351.8	491.9	531.8	140.3	196.2	212.1	0.36	0.62	0.88	THA	
0.45	360.5	476.1	673.0	102.3	135.0	190.9	0.06	0.15	0.37	VNM	
4.49	319.2	286.8	255.8	236.2	212.3	189.5	2.71	2.93	2.76		
5.80	314.3	280.5	250.9	239.0	213.3	190.8	3.31	3.63	3.52	AUS	
4.33	349.5	330.0	277.2	229.2	216.5	181.8	2.81	3.32	2.90	NZL	
0.34	369.7	320.9	483.4	139.1	120.8	181.9	0.15	0.16	0.17	PNG	
7.12	279.3	238.3	198.8	275.3	235.0	196.0	5.23	5.54	4.89		
7.55	383.7	348.5	300.8	318.2	289.0	249.5	5.71	6.15	5.76	CAN	
7.07	271.3	230.2	191.2	271.3	230.2	191.2	5.17	5.48	4.80	USA	
1.40	293.2	256.1	253.4	178.8	155.3	151.2	0.86	0.92	0.94		
1.72	336.5	341.7	283.2	177.3	180.0	149.2	0.85	1.37	1.29	CHL	
1.60	296.4	249.5	260.7	191.2	161.0	168.1	1.01	1.00	1.02	MEX	
0.47	208.7	207.1	161.1	87.6	86.9	67.6	0.29	0.35	0.41	PER	

	Energy Related CO <sub>2</sub> Emission			CO <sub>2</sub> Emission per Capita		
	Mt-C			t-C / Person		
	1990	2000	2009	1990	2000	2009
APEC 21	-	3,919.0	4,831.8	-	1.541	1.778
East Asia	971.8	1,343.4	2,245.6	0.658	0.833	1.337
China	581.5	847.6	1,749.8	0.512	0.671	1.314
Hong Kong, China	8.9	8.5	11.8	1.565	1.278	1.679
Japan	288.5	319.0	294.3	2.336	2.514	2.307
Republic of Korea	62.4	108.1	124.2	1.455	2.299	2.548
Russia	610.7	408.2	414.6	4.118	2.790	2.923
Chinese Taipei	30.4	60.2	65.5	1.489	2.702	2.835
Southeast Asia	-	172.9	254.9	-	0.384	0.500
Brunei Darussalam	1.2	1.4	1.8	4.747	4.216	4.489
Indonesia	37.3	73.0	109.9	0.210	0.356	0.478
Malaysia	15.7	32.0	47.9	0.866	1.375	1.745
Philippines	9.8	17.5	18.8	0.157	0.225	0.205
Singapore	5.3	9.1	16.3	1.752	2.248	3.265
Thailand	-	40.0	60.1	-	0.641	0.887
Viet Nam	4.7	12.0	31.1	0.070	0.155	0.357
Oceania	93.1	121.4	134.6	3.777	4.274	4.089
Australia	70.7	93.2	104.5	4.143	4.867	4.775
New Zealand	21.8	27.3	28.7	6.309	7.087	6.647
Papua New Guinea	0.6	0.8	1.5	0.153	0.155	0.219
North America	1,484.2	1,746.9	1,614.9	5.350	5.582	4.739
Canada	114.6	141.6	140.8	4.122	4.602	4.175
United States of America	1,369.6	1,605.3	1,474.1	5.487	5.689	4.801
Latin America	84.1	114.2	135.9	0.712	0.819	0.885
Chile	8.0	13.3	18.6	0.607	0.862	1.097
Mexico	70.7	93.5	107.2	0.849	0.954	0.998
Peru	5.4	7.5	10.1	0.248	0.287	0.347

CO <sub>2</sub> Emission per Real GDP			CO <sub>2</sub> Emission per Real GDP			CO <sub>2</sub> Emission per Total Primary Energy Supply			
kt-C / Billions of 2000 USD			kt-C / Billions of 2000 PPP			t-C / toe			
1990	2000	2009	1990	2000	2009	1990	2000	2009	
-	200.9	200.7	-	172.7	155.7	-	0.719	0.711	
187.8	195.3	245.3	201.5	174.6	177.0	0.785	0.788	0.766	
1,308.0	707.2	595.1	525.1	283.9	238.9	0.889	0.936	0.826	CHN
77.5	50.4	50.1	74.5	48.4	48.1	0.839	0.564	0.877	HKG
69.5	68.3	61.1	99.8	98.1	87.7	0.663	0.619	0.633	JPN
211.0	202.6	164.8	139.2	133.7	108.7	0.670	0.572	0.535	KOR
1,582.5	1,571.6	1,041.0	411.1	408.3	270.5	0.696	0.659	0.641	RUS
180.1	194.9	161.1	117.7	127.4	105.3	0.668	0.762	0.627	TWN
-	308.1	303.3	-	128.5	126.4	-	0.628	0.663	
253.7	234.3	267.9	108.3	100.1	114.4	0.589	0.521	0.670	BRN
341.7	442.4	425.0	113.7	147.1	141.3	0.700	0.721	0.695	IDN
332.0	341.1	349.6	147.0	151.0	154.8	0.747	0.621	0.726	MYS
160.4	215.7	157.1	70.3	94.5	68.8	0.346	0.448	0.489	PHL
119.5	97.7	112.9	84.3	68.9	79.7	0.539	0.443	0.608	SGP
-	325.7	345.8	-	129.9	137.9	-	0.662	0.650	THA
310.2	385.7	529.2	88.0	109.4	150.1	0.861	0.810	0.786	VNM
292.1	274.8	232.8	216.2	203.4	172.4	0.915	0.958	0.910	
255.9	242.2	206.4	194.6	184.2	157.0	0.814	0.863	0.823	AUS
542.5	512.2	425.1	355.9	336.0	278.9	1.552	1.552	1.534	NZL
269.4	238.0	313.6	101.4	89.6	118.0	0.729	0.742	0.649	PNG
195.1	164.4	132.3	192.3	162.2	130.5	0.698	0.690	0.666	
210.7	195.3	166.3	174.8	162.0	137.9	0.549	0.560	0.553	CAN
193.9	162.2	129.8	193.9	162.2	129.8	0.715	0.704	0.679	USA
171.7	160.9	160.4	104.7	97.5	95.7	0.586	0.628	0.633	
198.0	176.8	180.7	104.3	93.1	95.2	0.588	0.517	0.638	CHL
171.1	160.8	162.6	110.3	103.7	104.9	0.577	0.644	0.624	MEX
149.8	139.8	119.0	62.9	58.7	49.9	0.718	0.675	0.739	PER

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## Glossary

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### 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 (C<sub>3</sub>H<sub>8</sub>) and butane (C<sub>4</sub>H<sub>10</sub>) 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.

**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, biomass, etc. However, for Indonesia, Peru, Chinese Taipei, Thailand and Vietnam, non-commercial biomass was not included to keep historical consistency. 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 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:

- Domestic Air transport
- 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 are included.

# APEC

ENERGY HANDBOOK 2009

ENERGY WORKING GROUP  
OCTOBER 2011

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APEC#211-RE-03.1 ISSN 0219-7634



Asia-Pacific  
Economic Cooperation