



Asia-Pacific  
Economic Cooperation

# APEC

## ENERGY HANDBOOK 2014

ENERGY WORKING GROUP  
NOVEMBER 2016

COORDINATING AGENCY:  
ENERGY STATISTICS AND TRAINING OFFICE  
ASIA PACIFIC ENERGY RESEARCH CENTRE





Asia-Pacific  
Economic Cooperation

# APEC

## ENERGY HANDBOOK 2014

ENERGY WORKING GROUP  
NOVEMBER 2016

COORDINATING AGENCY:  
ENERGY STATISTICS AND TRAINING OFFICE  
ASIA PACIFIC ENERGY RESEARCH CENTRE

Prepared by

Energy Statistics and Training Office  
Asia Pacific Energy Research Centre (APEREC)  
Inui bldg., Kachidoki, 1-13-1, Kachidoki,  
Chuo-ku, Tokyo, 104-0054, Japan  
Phone: (81) 3 5144 8551 Facsimile: (81) 3 5144 8555  
E-mail: [esto@aperc.iecej.or.jp](mailto:esto@aperc.iecej.or.jp)  
Website: [www.iecej.or.jp/egeda](http://www.iecej.or.jp/egeda)

For

Asia Pacific Economic Cooperation Secretariat  
35 Heng Mui Keng Terrace  
Singapore 119616  
Phone: (65) 6891 9600 Facsimile: (65) 6891 9690  
E-mail: [info@apec.org](mailto:info@apec.org)  
Website: [www.apec.org](http://www.apec.org)

Copyright (c) 2016 APEC Secretariat  
APEC#216-RE-03.3 ISSN 0219-7634



---

## Preface

---

The APEC Energy Handbook 2014 is a handy, pocket-sized summary of key energy data and a supplement to APEC Energy Statistics 2014 which was released in November 2016 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 contains total primary energy supply by energy while the 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 until year 2035 which was published by the Asia Pacific Energy Research Centre in May 2016. The energy indicators part contains several indicators based on population, GDP and energy consumption.

This handbook was 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:

Asia Pacific Energy Research Centre

Address: 13-1, Kachidoki 1, Chuo-ku, Tokyo 104-0054, Japan

Telephone: +81 3 5144 8551; Facsimile: +81 3 5144 8555

Web: <http://www.iecej.or.jp/egeda/>



---

## Table of Contents

---

**Primary Energy Supply ..... 2**

**Transformation ..... 24**

**Final Energy Consumption ..... 30**

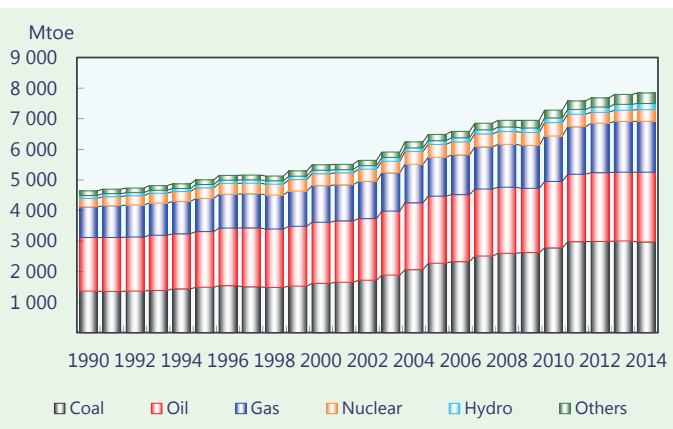
**Energy Balances..... 54**

**Energy Outlook..... 76**

**Energy Indicators ..... 78**

**Glossary ..... 84**

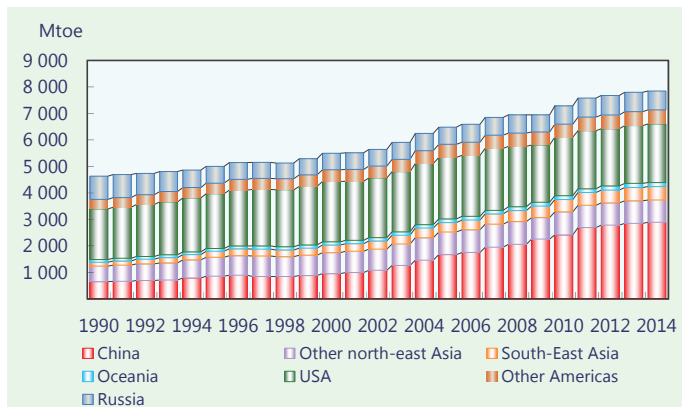
## Total primary energy supply by energy APEC



	1990	1995	2000	2005	2010	Mtoe 2014
Coal	1 361.4	1 486.3	1 613.2	2 270.9	2 772.8	2 968.6
Oil	1 753.1	1 822.7	1 996.9	2 192.6	2 171.2	2 280.9
Gas	997.3	1 083.3	1 200.6	1 277.3	1 493.4	1 668.8
Nuclear	284.2	345.1	389.5	416.2	433.6	380.8
Hydro	94.3	110.5	110.3	127.9	156.2	202.1
Others	145.1	152.6	183.4	198.6	259.8	342.3
<b>Total</b>	<b>4 635.4</b>	<b>5 000.5</b>	<b>5 494.0</b>	<b>6 483.6</b>	<b>7 287.0</b>	<b>7 843.5</b>

	1990	1995	2000	2005	2010	Share (%) 2014
Coal	29.4	29.7	29.4	35.0	38.1	37.8
Oil	37.8	36.5	36.3	33.8	29.8	29.1
Gas	21.5	21.7	21.9	19.7	20.5	21.3
Nuclear	6.1	6.9	7.1	6.4	5.9	4.9
Hydro	2.0	2.2	2.0	2.0	2.1	2.6
Others	3.1	3.1	3.3	3.1	3.6	4.4

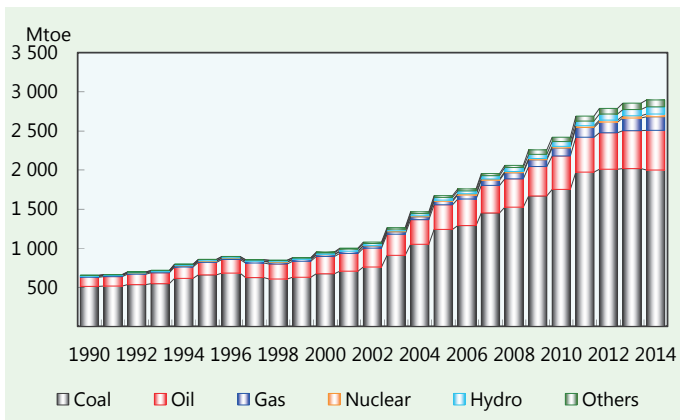
## Total primary energy supply by region APEC



	Mtoe					
	1990	1995	2000	2005	2010	2014
China	654.0	858.0	951.2	1 670.9	2 420.1	2 895.8
Other north-east Asia	583.8	712.6	796.0	850.2	868.2	842.1
South-East Asia	149.2	228.8	284.5	365.6	459.0	503.1
Oceania	100.1	108.4	126.2	132.1	148.0	148.2
USA	1 910.1	2 060.5	2 275.5	2 320.4	2 214.4	2 215.2
Other Americas	359.0	395.4	441.2	492.4	488.7	527.9
Russia	879.2	636.7	619.4	651.9	688.7	711.3
<b>Total</b>	<b>4 635.4</b>	<b>5 000.5</b>	<b>5 494.0</b>	<b>6 483.6</b>	<b>7 287.0</b>	<b>7 843.5</b>

	Share (%)					
	1990	1995	2000	2005	2010	2014
China	14.1	17.2	17.3	25.8	33.2	36.9
Other north-east Asia	12.6	14.3	14.5	13.1	11.9	10.7
South East Asia	3.2	4.6	5.2	5.6	6.3	6.4
Oceania	2.2	2.2	2.3	2.0	2.0	1.9
USA	41.2	41.2	41.4	35.8	30.4	28.2
Other Americas	7.7	7.9	8.0	7.6	6.7	6.7
Russia	19.0	12.7	11.3	10.1	9.5	9.1

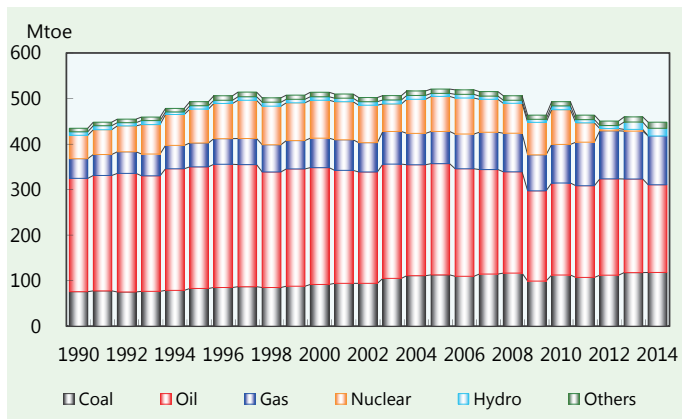
## Total primary energy supply by energy China



	1990	1995	2000	2005	2010	2014
Coal	512.2	659.2	672.7	1 239.7	1 753.1	2 001.1
Oil	114.4	158.5	221.0	317.8	428.4	506.3
Gas	14.2	16.7	22.4	43.2	100.9	174.2
Nuclear	.0	3.3	4.4	13.8	19.3	34.5
Hydro	10.9	16.4	19.1	34.1	62.1	91.5
Others	2.3	3.8	11.6	22.3	56.3	88.2
<b>Total</b>	<b>654.0</b>	<b>858.0</b>	<b>951.2</b>	<b>1 670.9</b>	<b>2 420.1</b>	<b>2 895.8</b>

	1990	1995	2000	2005	2010	2014
Coal	78.3	76.8	70.7	74.2	72.4	69.1
Oil	17.5	18.5	23.2	19.0	17.7	17.5
Gas	2.2	1.9	2.4	2.6	4.2	6.0
Nuclear	-	0.4	0.5	0.8	0.8	1.2
Hydro	1.7	1.9	2.0	2.0	2.6	3.2
Others	0.3	0.4	1.2	1.3	2.3	3.0

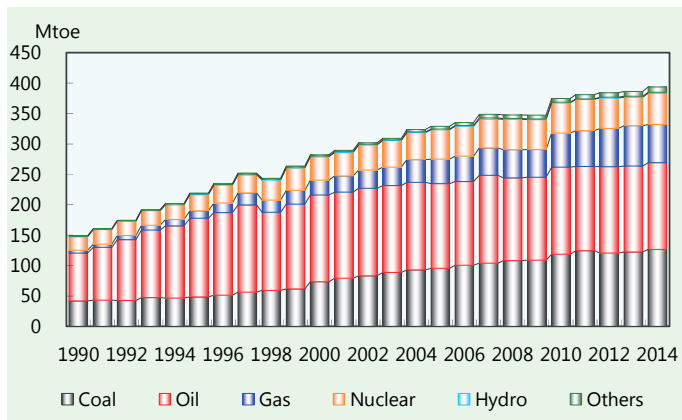
## Total primary energy supply by energy Japan



	Mtoe					
	1990	1995	2000	2005	2010	2014
Coal	75.7	82.8	91.8	112.9	112.5	118.2
Oil	249.1	267.4	256.5	244.3	201.8	192.3
Gas	43.5	52.0	64.9	70.9	85.3	107.3
Nuclear	51.0	75.0	83.3	76.4	76.2	-
Hydro	7.8	7.1	7.5	7.0	7.8	17.1
Others	7.5	8.8	9.6	9.8	9.6	13.5
Total	434.6	493.2	513.6	521.2	493.2	448.3

	Share (%)					
	1990	1995	2000	2005	2010	2014
Coal	17.4	16.8	17.9	21.7	22.8	26.4
Oil	57.3	54.2	49.9	46.9	40.9	42.9
Gas	10.0	10.5	12.6	13.6	17.3	23.9
Nuclear	11.7	15.2	16.2	14.7	15.4	-
Hydro	1.8	1.4	1.5	1.4	1.6	3.8
Others	1.7	1.8	1.9	1.9	1.9	3.0

## Total primary energy supply by energy Other north-east Asia

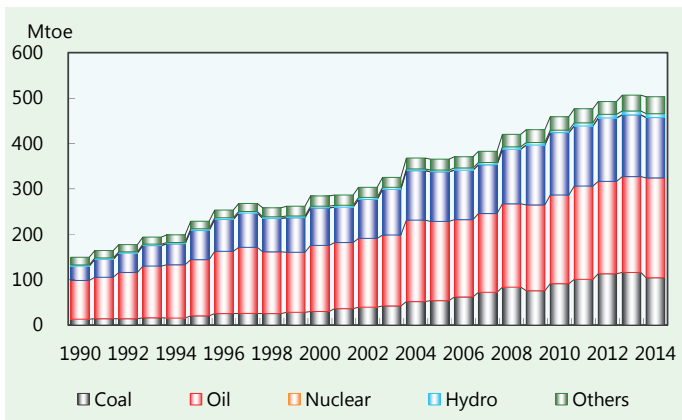


	Mtoe					
	1990	1995	2000	2005	2010	2014
Coal	42.1	48.4	73.6	95.6	118.8	126.7
Oil	78.4	129.6	142.3	139.3	143.2	142.6
Gas	4.5	12.0	24.6	39.9	55.9	62.5
Nuclear	22.3	26.7	38.4	48.7	49.6	51.8
Hydro	1.3	1.2	1.2	1.1	1.2	1.3
Others	0.6	1.5	2.2	4.4	6.4	8.8
<b>Total</b>	<b>149.2</b>	<b>219.4</b>	<b>282.4</b>	<b>329.0</b>	<b>375.0</b>	<b>393.8</b>

	Share (%)					
	1990	1995	2000	2005	2010	2014
Coal	28.2	22.1	26.1	29.1	31.7	32.2
Oil	52.6	59.1	50.4	42.4	38.2	36.2
Gas	3.0	5.5	8.7	12.1	14.9	15.9
Nuclear	15.0	12.2	13.6	14.8	13.2	13.2
Hydro	0.8	0.6	0.4	0.3	0.3	0.3
Others	0.4	0.7	0.8	1.3	1.7	2.2



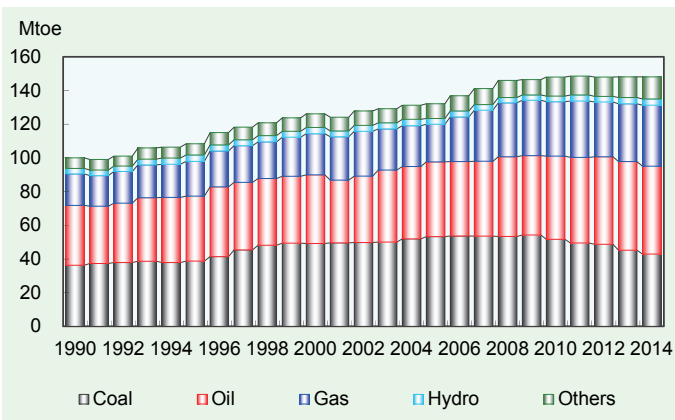
## Total primary energy supply by energy South-East Asia



	Mtoe					
	1990	1995	2000	2005	2010	2014
Coal	12.8	20.2	30.0	53.6	91.0	104.3
Oil	85.4	123.7	145.3	174.7	195.5	219.9
Gas	31.4	64.6	82.4	109.4	137.4	132.9
Nuclear	-	-	-	-	-	-
Hydro	2.7	3.7	3.9	4.2	5.6	8.8
Others	16.8	16.6	22.9	23.7	29.4	37.2
<b>Total</b>	<b>149.2</b>	<b>228.8</b>	<b>284.5</b>	<b>365.6</b>	<b>459.0</b>	<b>503.1</b>

	Share (%)					
	1990	1995	2000	2005	2010	2014
Coal	8.6	8.8	10.6	14.6	19.8	20.7
Oil	57.3	54.1	51.1	47.8	42.6	43.7
Gas	21.0	28.2	29.0	29.9	29.9	26.4
Nuclear	-	-	-	-	-	-
Hydro	1.8	1.6	1.4	1.1	1.2	1.8
Others	11.3	7.3	8.0	6.5	6.4	7.4

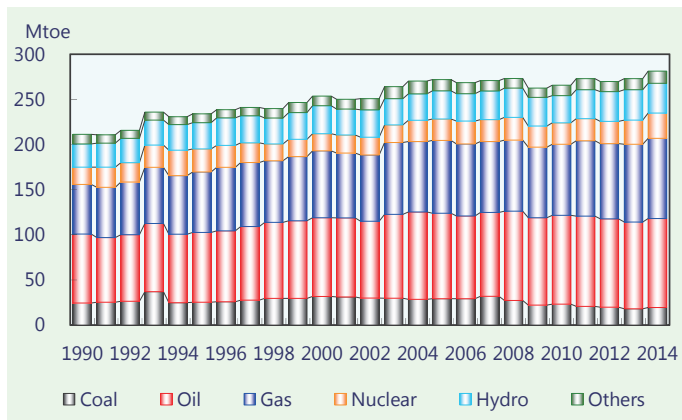
## Total primary energy supply by energy Oceania



	Mtoe					
	1990	1995	2000	2005	2010	2014
Coal	36.3	38.8	49.3	53.2	51.8	42.9
Oil	35.5	38.4	40.8	44.5	49.3	52.1
Gas	18.7	20.6	24.4	22.3	32.3	36.2
Nuclear	-	-	-	-	-	-
Hydro	3.3	3.8	3.6	3.4	3.4	3.8
Others	6.3	6.7	8.1	8.6	11.3	13.2
<b>Total</b>	<b>100.1</b>	<b>108.4</b>	<b>126.2</b>	<b>132.1</b>	<b>148.0</b>	<b>148.2</b>

	Share (%)					
	1990	1995	2000	2005	2010	2014
Coal	36.3	35.8	39.0	40.3	35.0	29.0
Oil	35.4	35.5	32.3	33.7	33.3	35.2
Gas	18.7	19.0	19.4	16.9	21.8	24.5
Nuclear	-	-	-	-	-	-
Hydro	3.3	3.5	2.9	2.6	2.3	2.5
Others	6.3	6.2	6.4	6.5	7.6	8.9

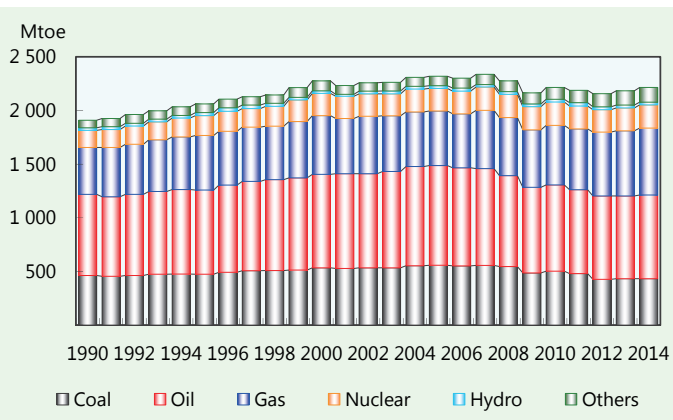
## Total primary energy supply by energy Canada



	Mtoe					
	1990	1995	2000	2005	2010	2014
Coal	24.3	25.3	31.6	29.2	23.2	19.5
Oil	76.5	77.2	87.2	94.6	98.4	98.5
Gas	54.7	67.1	74.2	80.6	78.6	88.7
Nuclear	19.4	25.6	19.0	24.0	23.6	28.1
Hydro	25.5	28.9	30.8	31.1	30.2	32.9
Others	10.9	9.8	10.8	12.3	11.4	13.3
<b>Total</b>	<b>211.3</b>	<b>233.8</b>	<b>253.7</b>	<b>271.8</b>	<b>265.4</b>	<b>281.0</b>

	Share (%)					
	1990	1995	2000	2005	2010	2014
Coal	11.5	10.8	12.5	10.7	8.7	6.9
Oil	36.2	33.0	34.4	34.8	37.1	35.1
Gas	25.9	28.7	29.3	29.7	29.6	31.6
Nuclear	9.2	10.9	7.5	8.8	8.9	10.0
Hydro	12.1	12.4	12.2	11.5	11.4	11.7
Others	5.1	4.2	4.3	4.5	4.3	4.7

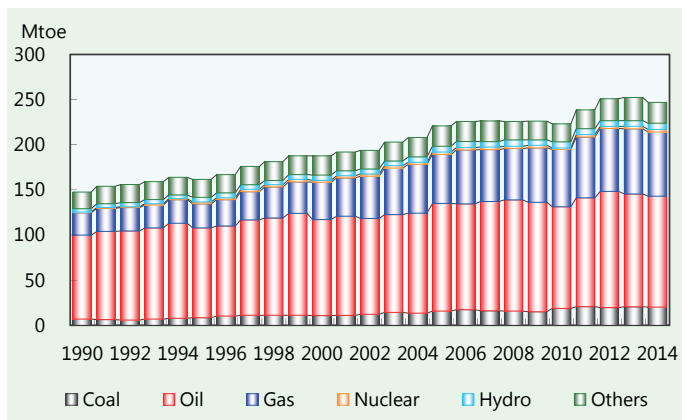
## Total primary energy supply by energy United States



	Mtoe					
	1990	1995	2000	2005	2010	2014
Coal	460.2	474.0	533.6	558.4	502.6	431.7
Oil	756.8	785.6	871.2	929.1	802.9	780.3
Gas	438.2	507.3	547.6	507.1	555.9	624.0
Nuclear	159.4	186.0	207.9	211.3	218.6	216.5
Hydro	24.9	29.1	24.1	25.6	24.6	24.2
Others	70.6	78.6	91.2	88.9	109.6	138.5
<b>Total</b>	<b>1 910.1</b>	<b>2 060.5</b>	<b>2 275.5</b>	<b>2 320.4</b>	<b>2 214.4</b>	<b>2 215.2</b>

	Share (%)					
	1990	1995	2000	2005	2010	2014
Coal	24.1	23.0	23.5	24.1	22.7	19.5
Oil	39.6	38.1	38.3	40.0	36.3	35.2
Gas	22.9	24.6	24.1	21.9	25.1	28.2
Nuclear	8.3	9.0	9.1	9.1	9.9	9.8
Hydro	1.3	1.4	1.1	1.1	1.1	1.1
Others	3.7	3.8	4.0	3.8	5.0	6.3

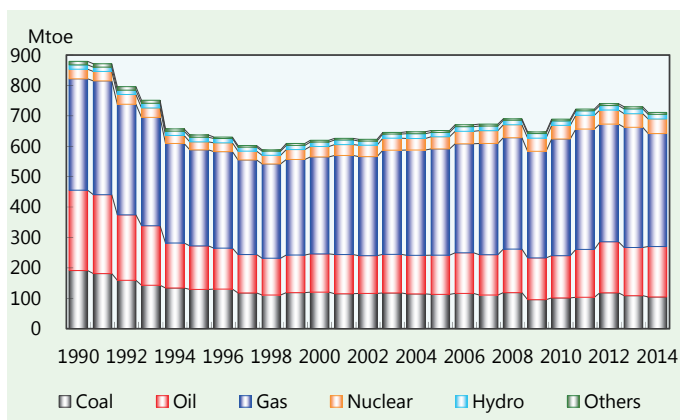
## Total primary energy supply by energy Other Americas



	Mtoe					
	1990	1995	2000	2005	2010	2014
Coal	6.8	8.5	10.6	15.8	18.6	20.2
Oil	93.1	99.5	106.6	119.1	112.6	122.6
Gas	24.7	26.5	41.2	54.4	63.6	71.3
Nuclear	0.8	2.2	2.1	2.8	1.5	2.5
Hydro	3.7	5.1	5.8	6.2	6.8	7.2
Others	18.7	19.9	21.2	22.4	20.0	22.9
<b>Total</b>	<b>147.7</b>	<b>161.5</b>	<b>187.6</b>	<b>220.6</b>	<b>223.2</b>	<b>246.8</b>

	Share (%)					
	1990	1995	2000	2005	2010	2014
Coal	4.6	5.2	5.6	7.2	8.3	8.2
Oil	63.0	61.6	56.8	54.0	50.4	49.7
Gas	16.7	16.4	21.9	24.6	28.5	28.9
Nuclear	0.5	1.4	1.1	1.3	0.7	1.0
Hydro	2.5	3.1	3.1	2.8	3.0	2.9
Others	12.6	12.3	11.3	10.2	9.0	9.3

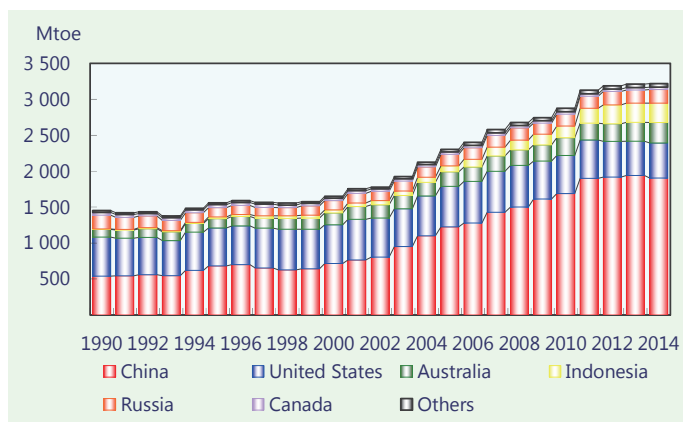
## Total primary energy supply by energy Russia



	Mtoe					
	1990	1995	2000	2005	2010	2014
Coal	191.1	129.2	120.0	112.6	101.1	104.0
Oil	263.8	142.7	126.1	129.2	139.1	166.2
Gas	367.3	316.5	318.9	349.6	383.4	371.7
Nuclear	31.3	26.2	34.4	39.3	44.8	47.5
Hydro	14.3	15.2	14.2	15.0	14.5	15.2
Others	11.5	6.9	5.7	6.2	5.9	6.8
<b>Total</b>	<b>879.2</b>	<b>636.7</b>	<b>619.4</b>	<b>651.9</b>	<b>688.7</b>	<b>711.3</b>

	Share (%)					
	1990	1995	2000	2005	2010	2014
Coal	21.7	20.3	19.4	17.3	14.7	14.6
Oil	30.0	22.4	20.4	19.8	20.2	23.4
Gas	41.8	49.7	51.5	53.6	55.7	52.3
Nuclear	3.6	4.1	5.6	6.0	6.5	6.7
Hydro	1.6	2.4	2.3	2.3	2.1	2.1
Others	1.3	1.1	0.9	1.0	0.9	1.0

## Indigenous production of coal APEC

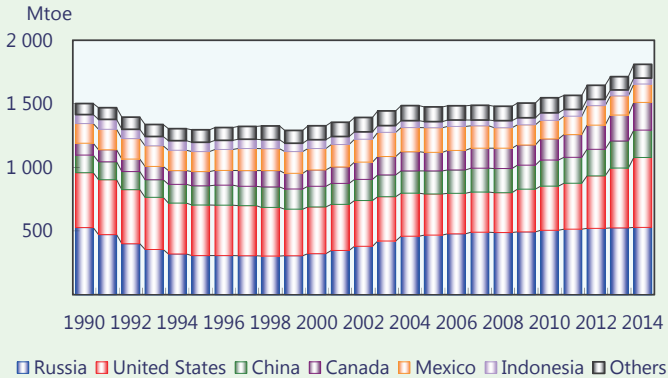


	1990	1995	2000	2005	2010	2014
China	540.0	680.4	715.8	1 224.3	1 686.5	1 905.1
United States	542.3	529.8	536.9	565.3	531.8	485.0
Australia	106.1	127.8	164.6	201.6	246.6	285.4
Indonesia	5.8	24.0	44.0	82.8	161.8	269.2
Russia	192.4	130.7	128.5	157.4	166.4	189.7
Canada	37.9	40.8	34.4	34.6	33.9	34.9
Others	27.3	24.6	26.1	37.7	47.6	47.4
<b>Total</b>	<b>1 451.8</b>	<b>1 558.0</b>	<b>1 650.2</b>	<b>2 303.6</b>	<b>2 874.6</b>	<b>3 216.8</b>

	1990	1995	2000	2005	2010	2014
China	37.2	43.7	43.4	53.1	58.7	59.2
United States	37.4	34.0	32.5	24.5	18.5	15.1
Australia	7.3	8.2	10.0	8.8	8.6	8.9
Russia	13.3	8.4	7.8	6.8	5.8	5.9
Indonesia	0.4	1.5	2.7	3.6	5.6	8.4
Canada	2.6	2.6	2.1	1.5	1.2	1.1
Others	1.9	1.6	1.6	1.6	1.7	1.5

Coal: hard coal, anthracite and lignite

## Indigenous production of crude oil APEC



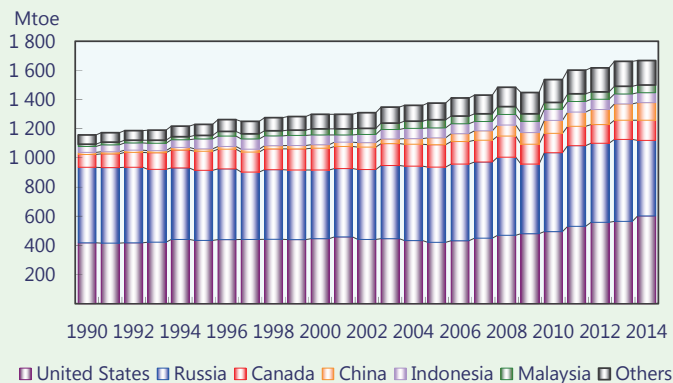
	1990	1995	2000	2005	2010	Mtoe 2014
Russia	526.3	306.6	323.3	468.7	506.5	528.7
United States	432.5	397.9	365.6	322.5	346.7	549.9
China	138.4	150.0	163.0	181.4	203.8	214.0
Canada	94.1	113.5	128.4	146.2	167.2	219.2
Mexico	153.3	157.6	169.2	193.0	147.2	144.8
Indonesia	70.7	72.9	69.0	48.1	58.0	47.1
Others	87.4	98.8	109.6	116.9	117.5	105.7
<b>Total</b>	<b>1 502.8</b>	<b>1 297.2</b>	<b>1 328.1</b>	<b>1 476.9</b>	<b>1 546.8</b>	<b>1 809.5</b>

	1990	1995	2000	2005	2010	Share (%) 2014
Russia	35.0	23.6	24.3	31.7	32.7	29.2
United States	28.8	30.7	27.5	21.8	22.4	30.4
China	9.2	11.6	12.3	12.3	13.2	11.8
Canada	6.3	8.7	9.7	9.9	10.8	12.1
Mexico	10.2	12.1	12.7	13.1	9.5	8.0
Indonesia	4.7	5.6	5.2	3.3	3.8	2.6
Others	5.8	7.6	8.3	7.9	7.6	5.8

Crude oil includes NGL and condensates



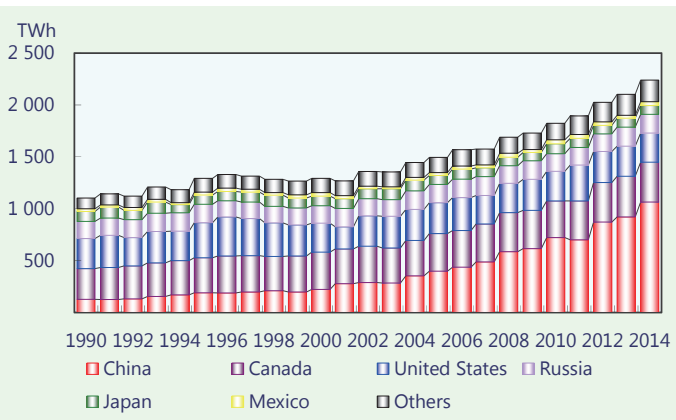
## Indigenous production of natural gas APEC



	1990	1995	2000	2005	2010	Mtoe 2014
United States	418.1	434.5	446.8	421.4	494.6	602.3
Russia	516.7	480.4	470.6	515.7	540.0	517.5
Canada	88.6	130.2	148.3	154.1	132.4	137.5
China	14.2	16.7	25.3	45.9	89.2	121.2
Indonesia	41.0	68.0	65.8	68.7	76.6	67.6
Malaysia	15.4	24.5	42.3	55.0	46.6	53.2
Others	62.4	75.7	99.2	114.9	157.1	166.8
<b>Total</b>	<b>1 156.4</b>	<b>1 230.0</b>	<b>1 298.4</b>	<b>1 375.7</b>	<b>1 536.6</b>	<b>1 666.1</b>

	1990	1995	2000	2005	2010	Share (%) 2014
United States	36.2	35.3	34.4	30.6	32.2	36.1
Russia	44.7	39.1	36.2	37.5	35.1	31.1
Canada	7.7	10.6	11.4	11.2	8.6	8.3
China	1.2	1.4	2.0	3.3	5.8	7.3
Indonesia	3.5	5.5	5.1	5.0	5.0	4.1
Malaysia	1.3	2.0	3.3	4.0	3.0	3.2
Others	5.4	6.2	7.6	8.4	10.2	10.0

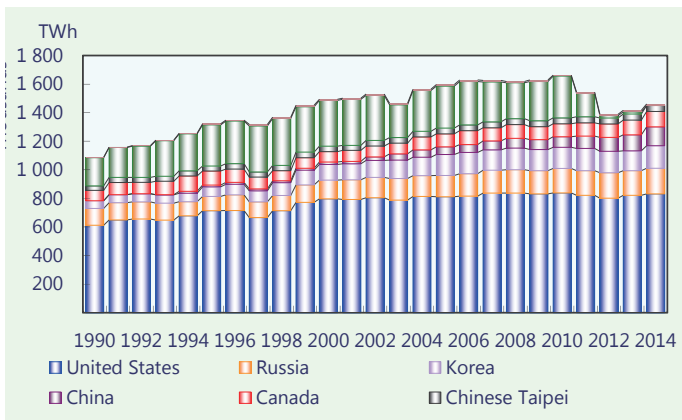
## Indigenous production of hydro power APEC



	TWh					
	1990	1995	2000	2005	2010	2014
China	126.7	190.6	222.4	397.0	722.2	1 064.3
Canada	296.8	336.0	358.6	362.0	351.5	382.6
United States	289.0	337.9	280.0	297.9	286.3	281.5
Russia	165.9	177.4	166.7	176.5	170.3	179.0
Japan	95.6	90.0	94.2	87.1	95.3	85.5
Mexico	23.5	27.5	33.1	27.7	37.1	38.9
Others	103.7	133.1	136.6	145.9	159.6	206.2
<b>Total</b>	<b>1 101.3</b>	<b>1 292.6</b>	<b>1 291.7</b>	<b>1 494.1</b>	<b>1 822.4</b>	<b>2 238.1</b>

	Share (%)					
	1990	1995	2000	2005	2010	2014
China	11.5	14.7	17.2	26.6	39.6	47.6
Canada	27.0	26.0	27.8	24.2	19.3	17.1
United States	26.2	26.1	21.7	19.9	15.7	12.6
Russia	15.1	13.7	12.9	11.8	9.3	8.0
Japan	8.7	7.0	7.3	5.8	5.2	3.8
Mexico	2.1	2.1	2.6	1.9	2.0	1.7
Others	9.4	10.3	10.6	9.8	8.8	9.2

## Indigenous production of nuclear power APEC

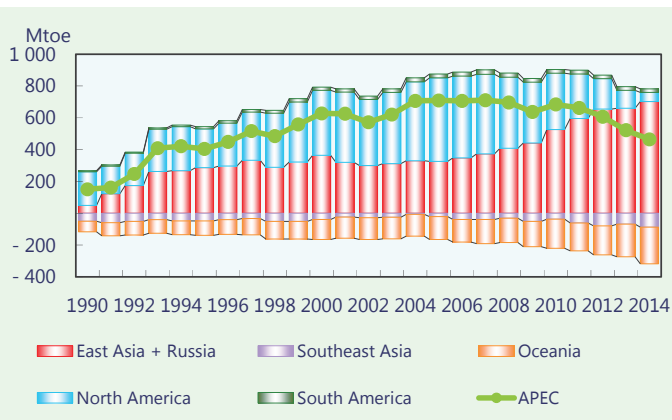


	TWh					
	1990	1995	2000	2005	2010	2014
United States	611.6	713.8	797.7	810.7	838.9	830.6
Russia	118.3	99.5	130.7	149.4	170.4	180.8
Korea	52.9	67.0	109.0	146.8	148.6	156.4
China	.0	12.8	16.7	53.1	73.9	132.5
Canada	73.0	97.8	72.8	92.0	90.7	107.7
Chinese Taipei	32.9	35.3	38.5	40.0	41.6	42.4
Japan	195.8	287.9	319.8	293.0	292.4	-
Mexico	2.9	8.4	8.2	10.8	5.9	9.7
<b>Total</b>	<b>1 087.3</b>	<b>1 322.7</b>	<b>1 493.4</b>	<b>1 595.9</b>	<b>1 662.3</b>	<b>1 460.0</b>

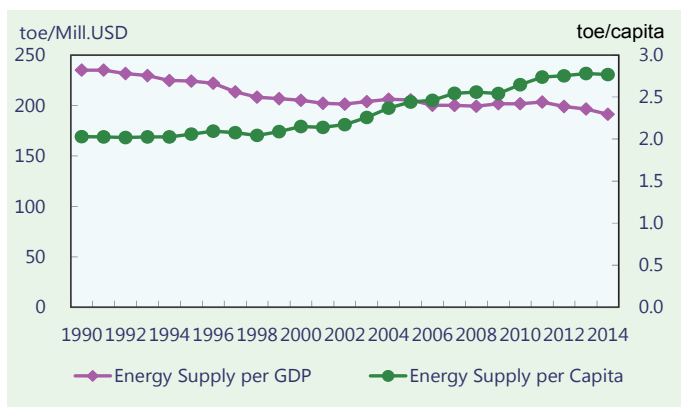
	Share (%)					
	1990	1995	2000	2005	2010	2014
United States	56.2	54.0	53.4	50.8	50.5	56.9
Russia	10.9	7.5	8.8	9.4	10.3	12.4
Korea	4.9	5.1	7.3	9.2	8.9	10.7
China	-	1.0	1.1	3.3	4.4	9.1
Canada	6.7	7.4	4.9	5.8	5.5	7.4
Chinese Taipei	3.0	2.7	2.6	2.5	2.5	2.9
Japan	18.0	21.8	21.4	18.4	17.6	-
Mexico	0.3	0.6	0.6	0.7	0.4	0.7

## Net import by region APEC



	1990	1995	2000	2005	2010	Mtoe 2014
Australia	-64.5	-89.2	-127.1	-148.7	-186.0	-235.1
Brunei Darussalam	-13.7	-14.3	-15.2	-17.8	-17.0	-13.5
Canada	-59.3	-119.7	-127.6	-134.0	-140.8	-183.8
Chile	7.0	10.8	17.7	20.5	22.3	24.3
China	-30.5	-8.9	33.3	137.3	345.2	487.1
Hong Kong, China	10.8	14.3	18.2	23.4	31.4	27.7
Indonesia	-65.9	-85.2	-82.4	-73.9	-140.7	-220.9
Japan	371.4	405.7	420.4	433.1	406.6	424.0
Korea	70.1	134.7	165.7	175.6	221.0	232.8
Malaysia	-25.6	-27.9	-26.8	-27.4	-13.2	-7.1
Mexico	-69.9	-69.3	-71.2	-77.0	-36.0	-15.1
New Zealand	2.1	3.1	3.4	4.9	2.9	4.6
Papua New Guinea	-3.7	-4.0	-2.7	-1.0	0.7	-0.2
Peru	-0.6	1.8	3.3	3.0	0.4	-1.2
The Philippines	11.9	17.7	20.0	17.0	17.7	21.1
Russia	-412.5	-314.9	-349.5	-539.3	-579.1	-570.8
Singapore	24.5	32.5	41.0	50.8	70.2	76.8
Chinese Taipei	39.4	55.7	76.4	96.4	101.8	101.4
Thailand	18.2	32.6	34.6	48.2	53.5	58.7
United States	341.9	433.4	606.3	736.0	530.8	256.2
<b>Total</b>	<b>151.0</b>	<b>404.4</b>	<b>628.0</b>	<b>709.4</b>	<b>683.7</b>	<b>460.4</b>

## Total primary energy supply per GDP & capita APEC

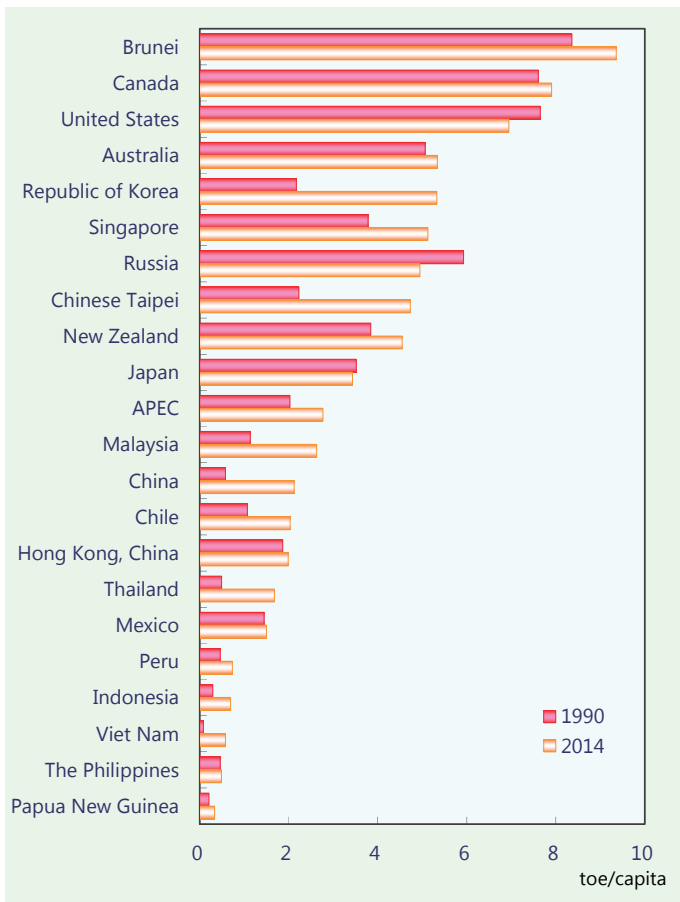


	toe/capita					
	1990	1995	2000	2005	2010	2014
Population (mill.)	2 286	2 429	2 555	2 656	2 752	2 828
Primary Energy Supply per Capita	2.03	2.06	2.15	2.44	2.65	2.77

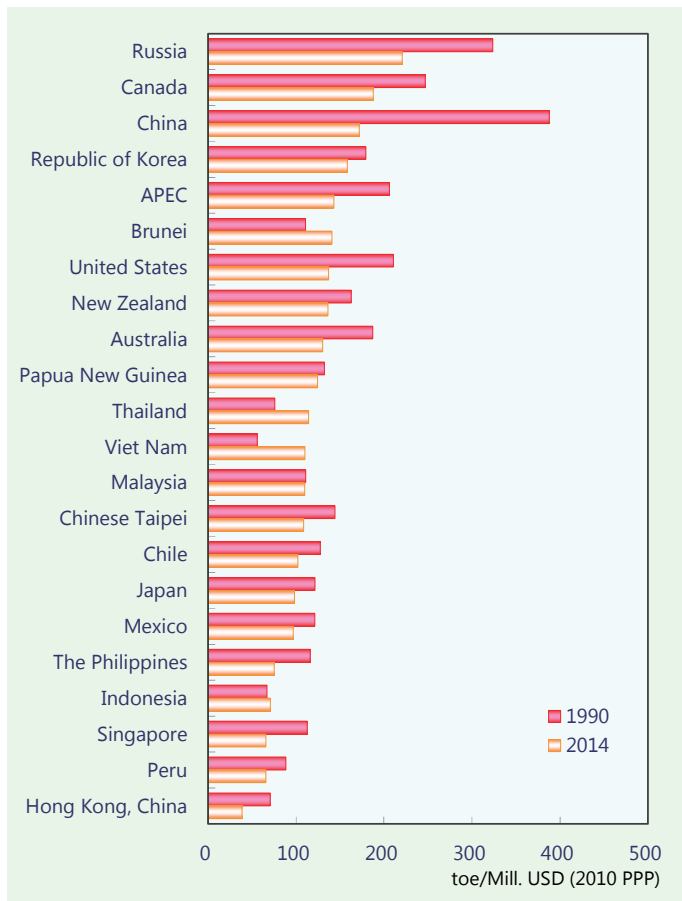
  

	toe/mill. USD					
	1990	1995	2000	2005	2010	2014
GDP (bill. USD)	19 720	22 299	26 781	31 532	36 108	38 574
Primary Energy Supply per GDP	235.1	224.2	205.1	205.6	201.8	199.1

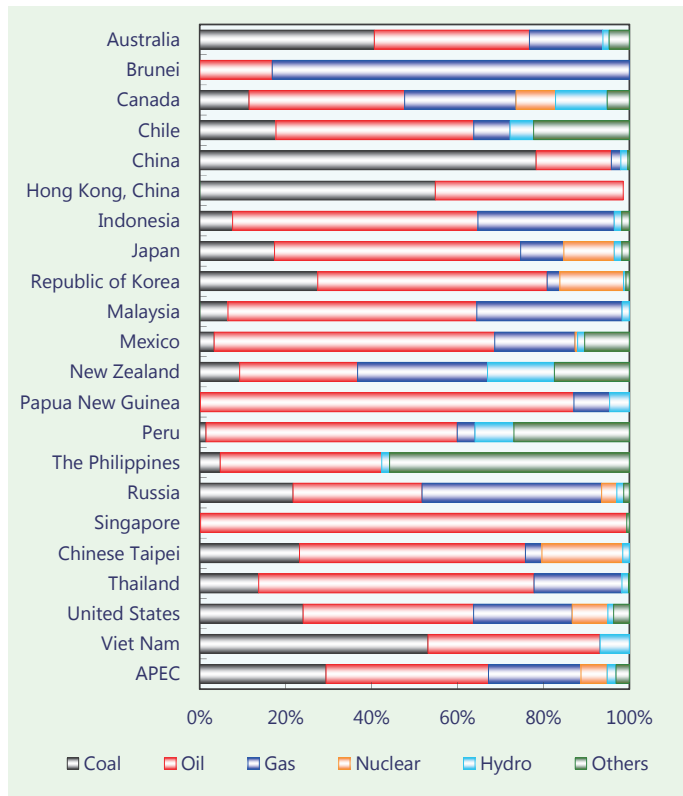
## Total primary energy supply per capita 1990 vs 2014 by economy



## Total primary energy supply per GDP 1990 vs 2014 by economy

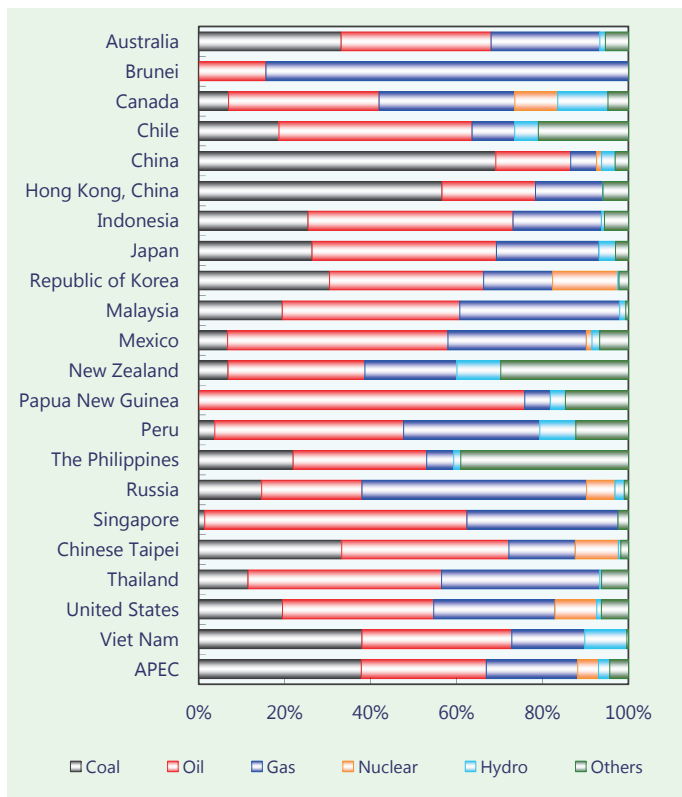


## Primary energy mix by economy 1990

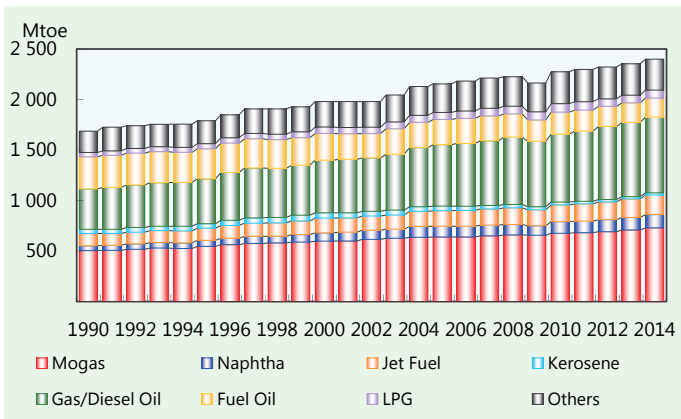




## Primary energy mix by economy 2014

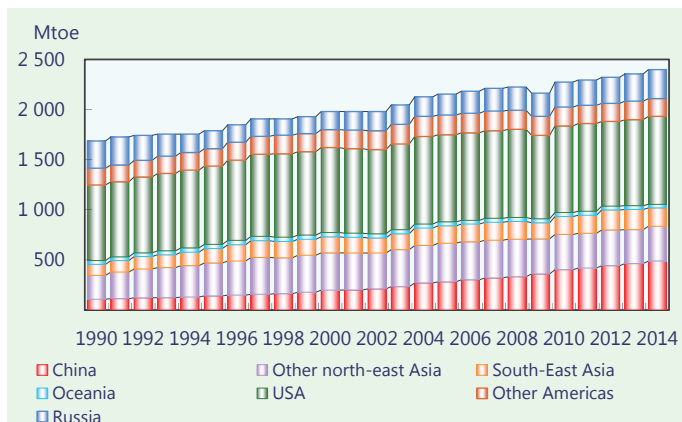


## Petroleum refining by product APEC



	Mtoe					
	1990	1995	2000	2005	2010	2014
Mogas	503.9	545.9	596.4	637.6	676.6	730.1
Naphtha	48.1	59.8	83.7	106.6	113.6	130.0
Jet Fuel	121.6	120.4	145.3	155.9	165.8	193.1
Kerosene	40.3	46.1	53.2	44.1	28.8	21.4
Gas/Diesel Oil	401.9	441.5	520.4	609.6	674.6	751.9
Fuel Oil	317.1	298.6	265.9	248.9	215.9	188.7
LPG	42.6	50.5	61.8	68.7	82.6	78.7
Others	210.3	224.8	253.1	282.2	315.3	305.3
<b>Total</b>	<b>1 685.7</b>	<b>1 787.7</b>	<b>1 979.9</b>	<b>2 153.6</b>	<b>2 273.1</b>	<b>2 399.3</b>
	Share (%)					
	1990	1995	2000	2005	2010	2014
Mogas	29.9	30.5	30.1	29.6	29.8	30.4
Naphtha	2.9	3.3	4.2	5.0	5.0	5.4
Jet Fuel	7.2	6.7	7.3	7.2	7.3	8.0
Kerosene	2.4	2.6	2.7	2.0	1.3	0.9
Gas/Diesel Oil	23.8	24.7	26.3	28.3	29.7	31.3
Fuel Oil	18.8	16.7	13.4	11.6	9.5	7.9
LPG	2.5	2.8	3.1	3.2	3.6	3.3
Others	12.5	12.6	12.8	13.1	13.9	12.7

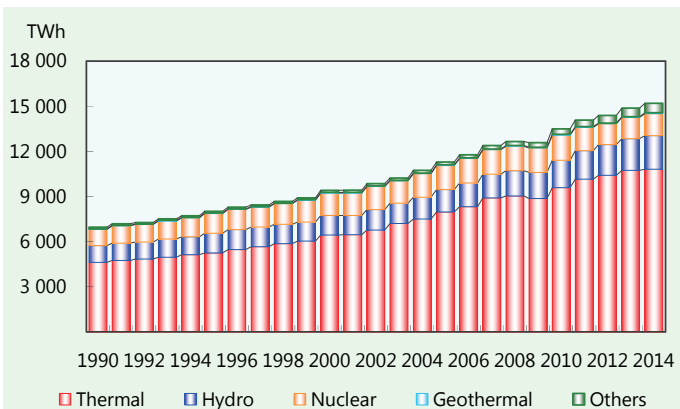
## Petroleum refining by region APEC



	Mtoe					
	1990	1995	2000	2005	2010	2014
China	107.4	140.6	197.9	281.1	402.0	489.6
Other north-east Asia	237.3	327.8	373.6	384.3	352.0	345.6
South-East Asia	111.7	144.2	158.2	173.6	179.1	181.9
Oceania	37.0	41.2	43.5	40.8	38.7	35.3
USA	753.8	781.5	846.7	869.2	864.6	878.2
Other Americas	168.7	173.4	180.1	195.7	186.6	180.5
Russia	269.7	178.9	179.9	208.9	250.0	288.1
<b>Total</b>	<b>1 685.7</b>	<b>1 787.7</b>	<b>1 979.9</b>	<b>2 153.6</b>	<b>2 273.1</b>	<b>2 399.3</b>

	Share (%)					
	1990	1995	2000	2005	2010	2014
China	6.4	7.9	10.0	13.1	17.7	20.4
Other north-east Asia	14.1	18.3	18.9	17.8	15.5	14.4
South-East Asia	6.6	8.1	8.0	8.1	7.9	7.6
Oceania	2.2	2.3	2.2	1.9	1.7	1.5
USA	44.7	43.7	42.8	40.4	38.0	36.6
Other Americas	10.0	9.7	9.1	9.1	8.2	7.5
Russia	16.0	10.0	9.1	9.7	11.0	12.0

## Electricity generation by type APEC

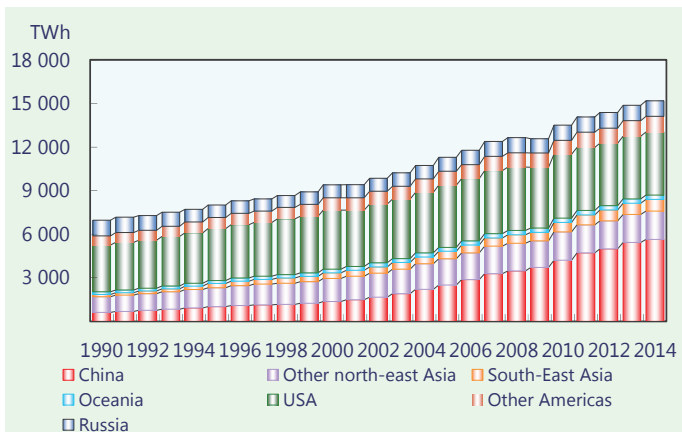


	1990	1995	2000	2005	2010	TWh 2014
Thermal	4 623.2	5 255.5	6 435.6	7 966.1	9 587.9	10 803.6
Hydro	1 101.3	1 292.6	1 291.7	1 494.1	1 822.4	2 238.1
Nuclear	1 087.3	1 322.7	1 493.4	1 595.9	1 662.3	1 460.0
Geothermal	31.5	34.1	43.4	47.5	53.0	55.8
Others	118.4	107.4	130.3	186.3	374.1	625.0
Total	6 961.7	8 012.2	9 394.4	11 290.0	13 499.8	15 182.5

	1990	1995	2000	2005	2010	Share (%) 2014
Thermal	66.4	65.6	68.5	70.6	71.0	71.2
Hydro	15.8	16.1	13.7	13.2	13.5	14.7
Nuclear	15.6	16.5	15.9	14.1	12.3	9.6
Geothermal	0.5	0.4	0.5	0.4	0.4	0.4
Others	1.7	1.3	1.4	1.7	2.8	4.1

Note: Others comprise power generated from other renewable energy sources.

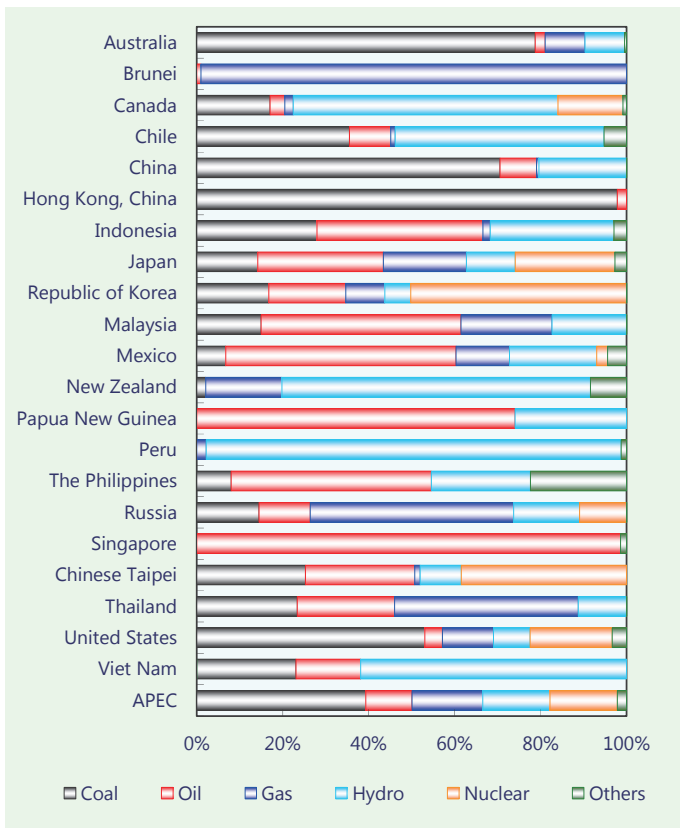
## Electricity generation by region APEC



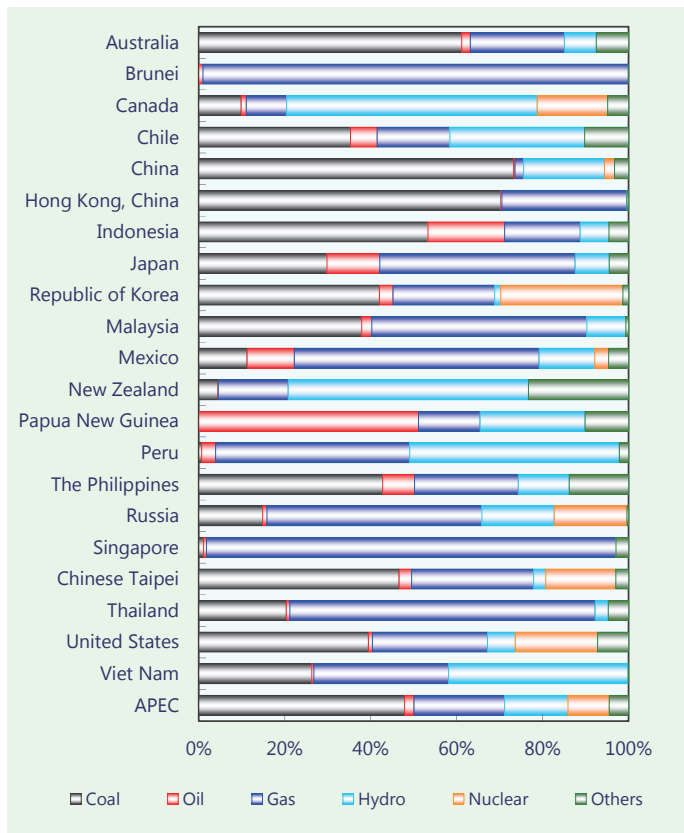
	TWh					
	1990	1995	2000	2005	2010	2014
China	621.2	1 007.7	1 355.6	2 500.3	4 207.2	5 649.6
Other north-east Asia	1 063.7	1 310.8	1 594.4	1 809.8	1 944.4	1 932.8
South-East Asia	156.8	283.2	389.4	505.1	660.8	821.9
Oceania	189.1	210.8	251.8	275.1	301.2	296.0
USA	3 218.6	3 582.1	4 052.7	4 294.4	4 378.4	4 339.2
Other Americas	630.2	756.5	871.4	950.4	967.8	1 077.0
Russia	1 082.2	861.0	879.1	955.0	1 039.9	1 066.1
Total	6 961.7	8 012.2	9 394.4	11 290.0	13 499.8	15 182.5

	Share (%)					
	1990	1995	2000	2005	2010	2014
China	8.9	12.6	14.4	22.1	31.2	37.2
Other north-east Asia	15.3	16.4	17.0	16.0	14.4	12.7
South-East Asia	2.3	3.5	4.1	4.5	4.9	5.4
Oceania	2.7	2.6	2.7	2.4	2.2	1.9
USA	46.2	44.7	43.1	38.0	32.4	28.6
Other Americas	9.1	9.4	9.3	8.4	7.2	7.1
Russia	15.5	10.7	9.4	8.5	7.7	7.0

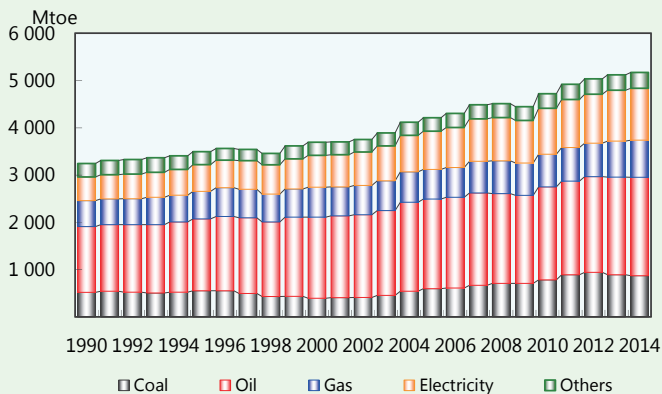
## Electricity generation by economy 1990



## Electricity generation by economy 2014



## Total final energy consumption by energy APEC



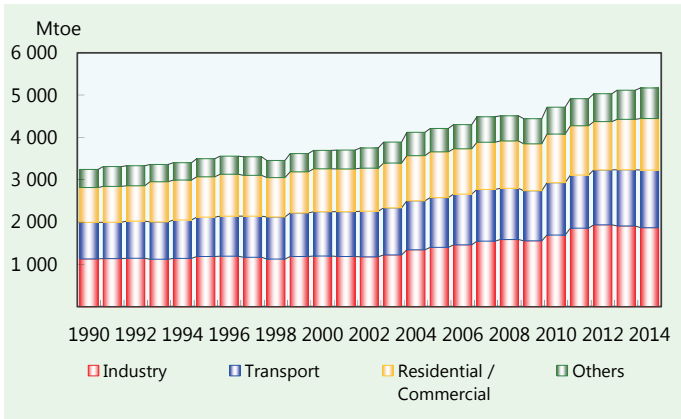
	Mtoe					
	1990	1995	2000	2005	2010	2014
Coal	520.9	552.7	395.8	598.2	783.5	871.3
Oil	1 387.7	1 518.1	1 713.5	1 895.1	1 969.3	2 080.4
Gas	551.5	584.9	634.4	627.5	687.1	784.5
Electricity	502.1	563.5	671.2	809.5	973.6	1 098.7
Others	281.2	277.4	278.7	282.6	303.3	332.4
<b>Total</b>	<b>3 243.4</b>	<b>3 496.5</b>	<b>3 693.5</b>	<b>4 212.8</b>	<b>4 716.9</b>	<b>5 167.3</b>

	Share (%)					
	1990	1995	2000	2005	2010	2014
Coal	16.1	15.8	10.7	14.2	16.6	16.9
Oil	42.8	43.4	46.4	45.0	41.8	40.3
Gas	17.0	16.7	17.2	14.9	14.6	15.2
Electricity	15.5	16.1	18.2	19.2	20.6	21.3
Others	8.7	7.9	7.5	6.7	6.4	6.4



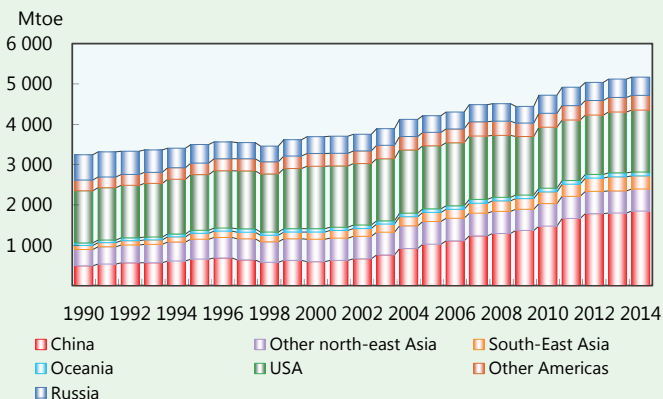
## Total final energy consumption by sector APEC



	Mtoe					
	1990	1995	2000	2005	2010	2014
Industry	1 131.5	1 190.5	1 196.4	1 399.1	1 693.5	1 869.2
Transport	861.0	924.9	1 052.1	1 178.0	1 240.2	1 356.1
Residential / Commercial	825.2	956.6	1 009.6	1 079.7	1 147.4	1 222.7
Others	425.7	424.6	435.4	555.9	635.7	719.2
<b>Total</b>	<b>3 243.4</b>	<b>3 496.5</b>	<b>3 693.5</b>	<b>4 212.8</b>	<b>4 716.9</b>	<b>5 167.3</b>

	Share (%)					
	1990	1995	2000	2005	2010	2014
Industry	34.9	34.0	32.4	33.2	35.9	36.2
Transport	26.5	26.5	28.5	28.0	26.3	26.2
Residential / Commercial	25.4	27.4	27.3	25.6	24.3	23.7
Others	13.1	12.1	11.8	13.2	13.5	13.9

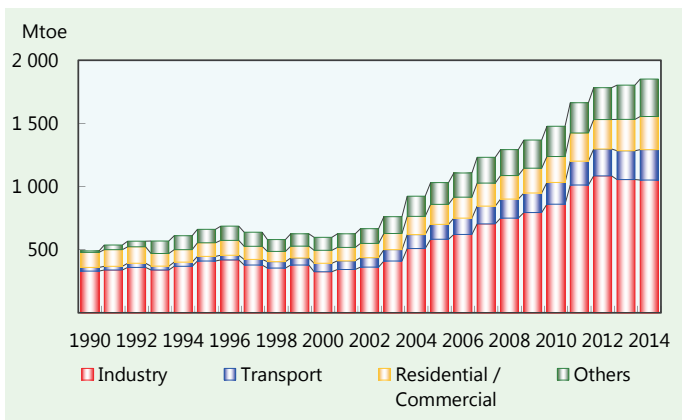
## Total final energy consumption by region APEC



	1990	1995	2000	2005	2010	Mtoe 2014
China	489.9	660.7	597.5	1 029.7	1 477.3	1 850.8
Other north-east Asia	406.7	492.6	553.9	561.6	556.1	545.8
South-East Asia	96.4	143.6	176.4	223.3	290.8	320.7
Oceania	67.0	74.3	83.4	85.9	91.2	96.9
USA	1 293.5	1 377.7	1 546.3	1 562.6	1 510.7	1 537.2
Other Americas	264.9	289.3	318.1	337.7	344.3	361.4
Russia	625.1	458.4	417.9	412.0	446.6	454.4
<b>Total</b>	<b>3 243.4</b>	<b>3 496.5</b>	<b>3 693.5</b>	<b>4 212.8</b>	<b>4 716.9</b>	<b>5 167.3</b>

	1990	1995	2000	2005	2010	Share (%) 2014
China	15.1	18.9	16.2	24.4	31.3	35.8
Other north-east Asia	12.5	14.1	15.0	13.3	11.8	10.6
South-East Asia	3.0	4.1	4.8	5.3	6.2	6.2
Oceania	2.1	2.1	2.3	2.0	1.9	1.9
USA	39.9	39.4	41.9	37.1	32.0	29.7
Other Americas	8.2	8.3	8.6	8.0	7.3	7.0
Russia	19.3	13.1	11.3	9.8	9.5	8.8

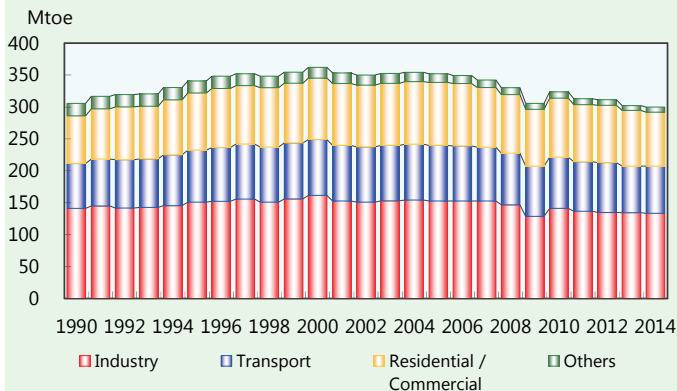
## Total final energy consumption by sector China



	Mtoe					
	1990	1995	2000	2005	2010	2014
Industry	329.8	410.0	324.4	581.6	860.0	1 051.7
Transport	28.8	36.4	67.6	119.1	172.1	240.4
Residential / Commercial	118.4	107.0	102.7	157.1	206.0	261.3
Others	13.0	107.3	102.8	171.9	239.2	297.4
<b>Total</b>	<b>489.9</b>	<b>660.7</b>	<b>597.5</b>	<b>1 029.7</b>	<b>1 477.3</b>	<b>1 850.8</b>

	Share (%)					
	1990	1995	2000	2005	2010	2014
Industry	67.3	62.1	54.3	56.5	58.2	56.8
Transport	5.9	5.5	11.3	11.6	11.7	13.0
Residential / Commercial	24.2	16.2	17.2	15.3	13.9	14.1
Others	2.6	16.2	17.2	16.7	16.2	16.1

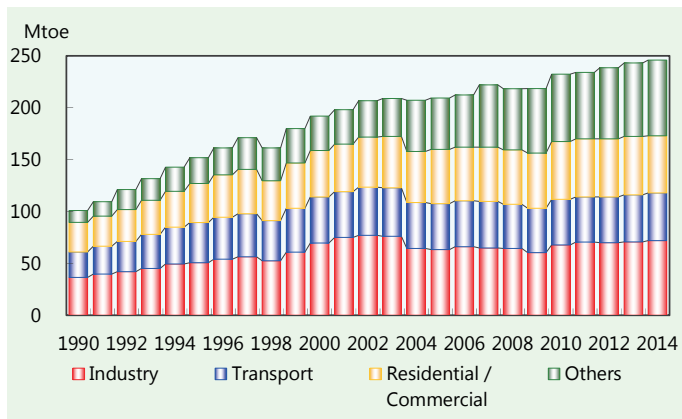
## Total final energy consumption by sector Japan



	Mtoe					
	1990	1995	2000	2005	2010	2014
Industry	141.3	150.9	161.5	152.7	141.2	133.2
Transport	70.0	81.4	87.4	86.9	80.3	74.0
Residential / Commercial	75.0	89.6	96.5	98.8	92.6	84.9
Others	19.5	19.0	16.7	13.9	9.5	7.7
<b>Total</b>	<b>305.8</b>	<b>340.9</b>	<b>362.1</b>	<b>352.3</b>	<b>323.7</b>	<b>299.8</b>

	Share (%)					
	1990	1995	2000	2005	2010	2014
Industry	46.2	44.3	44.6	43.4	43.6	44.4
Transport	22.9	23.9	24.1	24.7	24.8	24.7
Residential / Commercial	24.5	26.3	26.7	28.0	28.6	28.3
Others	6.4	5.6	4.6	3.9	2.9	2.6

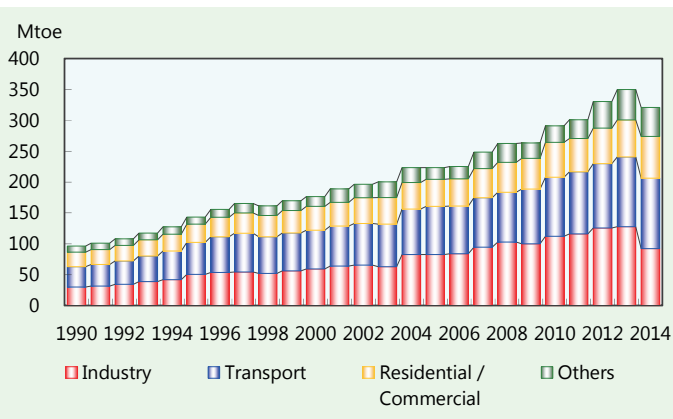
## Total final energy consumption by sector Other north-east Asia



	1990	1995	2000	2005	2010	2014
						Mtoe
Industry	36.4	50.5	69.6	63.4	67.7	71.9
Transport	24.4	38.8	44.5	44.2	43.9	45.9
Residential / Commercial	28.6	37.6	44.7	52.3	55.7	55.1
Others	11.4	24.8	33.1	49.5	65.1	73.1
<b>Total</b>	<b>100.9</b>	<b>151.7</b>	<b>191.9</b>	<b>209.4</b>	<b>232.5</b>	<b>246.0</b>

	1990	1995	2000	2005	2010	2014
						Share (%)
Industry	36.1	33.3	36.3	30.3	29.1	29.2
Transport	24.2	25.6	23.2	21.1	18.9	18.7
Residential / Commercial	28.4	24.8	23.3	25.0	24.0	22.4
Others	11.3	16.3	17.2	23.6	28.0	29.7

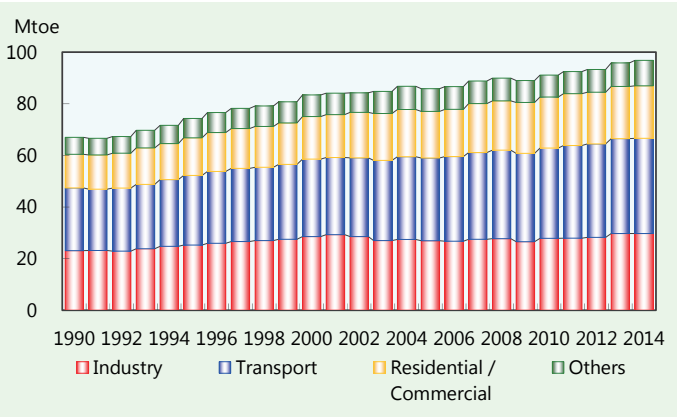
## Total final energy consumption by sector South-East Asia



	Mtoe					
	1990	1995	2000	2005	2010	2014
Industry	30.1	50.7	59.5	82.5	112.0	92.2
Transport	33.1	52.0	62.7	78.4	95.9	114.2
Residential / Commercial	23.4	29.4	38.5	43.6	56.4	67.3
Others	9.8	11.5	15.7	18.9	26.5	47.0
<b>Total</b>	<b>96.4</b>	<b>143.6</b>	<b>176.4</b>	<b>223.3</b>	<b>290.8</b>	<b>320.7</b>

	Share (%)					
	1990	1995	2000	2005	2010	2014
Industry	31.2	35.3	33.7	36.9	38.5	28.7
Transport	34.3	36.2	35.5	35.1	33.0	35.6
Residential / Commercial	24.2	20.5	21.8	19.5	19.4	21.0
Others	10.2	8.0	8.9	8.5	9.1	14.6

## Total final energy consumption by sector Oceania

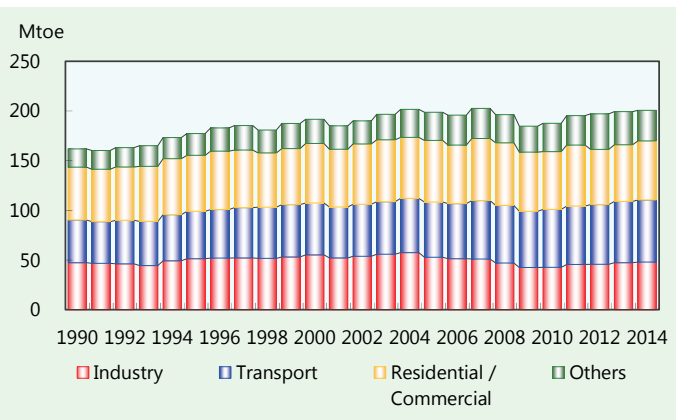


	Mtoe					
	1990	1995	2000	2005	2010	2014
Industry	23.1	25.2	28.5	26.9	27.8	29.7
Transport	24.3	27.0	30.0	32.0	35.0	37.0
Residential / Commercial	13.0	14.6	16.5	18.1	19.8	20.3
Others	6.6	7.5	8.4	8.9	8.5	9.9
<b>Total</b>	<b>67.0</b>	<b>74.3</b>	<b>83.4</b>	<b>85.9</b>	<b>91.2</b>	<b>96.9</b>

	Share (%)					
	1990	1995	2000	2005	2010	2014
Industry	34.5	34.0	34.2	31.3	30.5	30.6
Transport	36.3	36.3	36.0	37.3	38.4	38.2
Residential / Commercial	19.4	19.7	19.7	21.0	21.8	21.0
Others	9.8	10.1	10.0	10.3	9.4	10.2

## Total final energy consumption by sector Canada

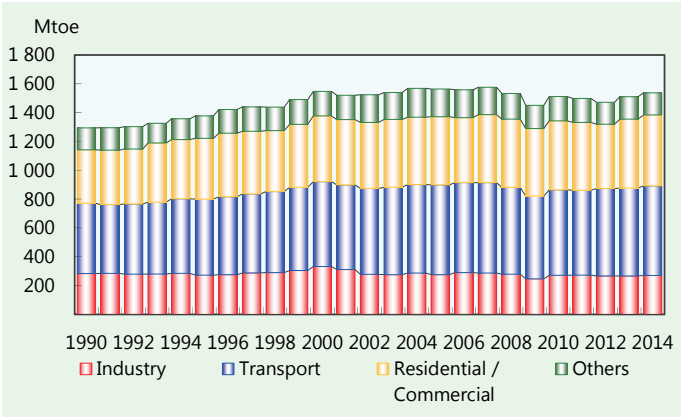


	Mtoe					
	1990	1995	2000	2005	2010	2014
Industry	47.2	51.3	55.2	52.7	42.6	48.0
Transport	43.1	47.8	52.2	55.5	58.3	62.6
Residential / Commercial	53.2	56.3	60.0	62.1	58.1	59.3
Others	18.2	21.9	24.1	28.4	28.5	30.9
<b>Total</b>	<b>161.7</b>	<b>177.2</b>	<b>191.5</b>	<b>198.7</b>	<b>187.6</b>	<b>200.7</b>

	Share (%)					
	1990	1995	2000	2005	2010	2014
Industry	29.2	28.9	28.8	26.5	22.7	23.9
Transport	26.7	27.0	27.2	27.9	31.1	31.2
Residential / Commercial	32.9	31.8	31.3	31.3	31.0	29.5
Others	11.2	12.3	12.6	14.3	15.2	15.4



## Total final energy consumption by sector United States

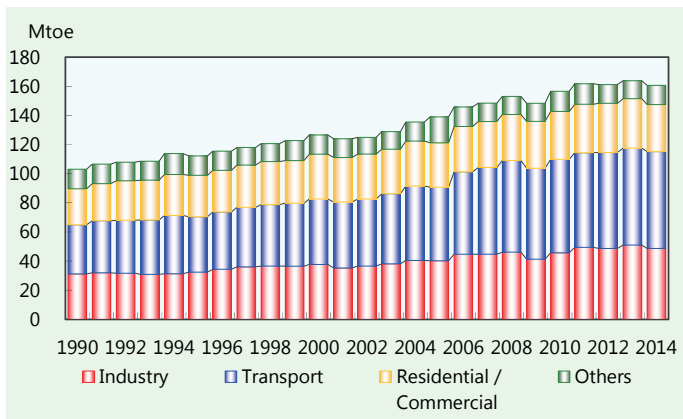


	Mtoe					
	1990	1995	2000	2005	2010	2014
Industry	283.7	272.8	332.3	276.1	270.2	268.7
Transport	487.6	527.6	588.4	622.8	593.9	622.1
Residential / Commercial	369.1	421.0	457.1	472.0	477.4	492.2
Others	153.1	156.3	168.6	191.7	169.3	154.3
<b>Total</b>	<b>1 293.5</b>	<b>1 377.7</b>	<b>1 546.3</b>	<b>1 562.6</b>	<b>1 510.7</b>	<b>1 537.2</b>

	Share (%)					
	1990	1995	2000	2005	2010	2014
Industry	21.9	19.8	21.5	17.7	17.9	17.5
Transport	37.7	38.3	38.0	39.9	39.3	40.5
Residential / Commercial	28.5	30.6	29.6	30.2	31.6	32.0
Others	11.8	11.3	10.9	12.3	11.2	10.0

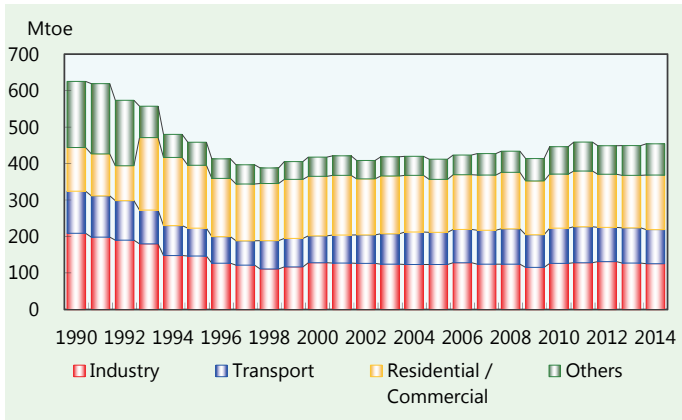
## Total final energy consumption by sector Other Americas



	Mtoe					
	1990	1995	2000	2005	2010	2014
Industry	31.1	32.4	37.6	40.2	45.7	48.6
Transport	33.8	38.0	44.9	50.6	64.3	66.5
Residential / Commercial	24.8	28.6	30.7	30.4	32.9	32.3
Others	13.5	13.2	13.3	17.8	13.9	13.3
<b>Total</b>	<b>103.2</b>	<b>112.1</b>	<b>126.6</b>	<b>139.0</b>	<b>156.7</b>	<b>160.7</b>

	Share (%)					
	1990	1995	2000	2005	2010	2014
Industry	30.2	28.9	29.7	28.9	29.2	30.2
Transport	32.8	33.9	35.5	36.4	41.0	41.4
Residential / Commercial	24.0	25.5	24.3	21.9	21.0	20.1
Others	13.0	11.8	10.5	12.8	8.8	8.3

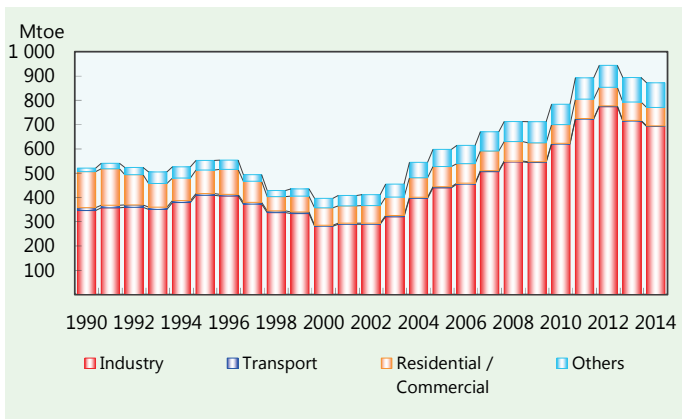
## Total final energy consumption by sector Russia



	Mtoe					
	1990	1995	2000	2005	2010	2014
Industry	208.7	146.7	127.8	123.0	126.3	125.3
Transport	115.9	76.1	74.5	88.6	96.5	93.5
Residential / Commercial	119.8	172.4	162.9	145.3	148.4	150.1
Others	180.7	63.1	52.7	55.1	75.3	85.6
<b>Total</b>	<b>625.1</b>	<b>458.4</b>	<b>417.9</b>	<b>412.0</b>	<b>446.6</b>	<b>454.4</b>

	Share (%)					
	1990	1995	2000	2005	2010	2014
Industry	33.4	32.0	30.6	29.9	28.3	27.6
Transport	18.5	16.6	17.8	21.5	21.6	20.6
Residential / Commercial	19.2	37.6	39.0	35.3	33.2	33.0
Others	28.9	13.8	12.6	13.4	16.9	18.8

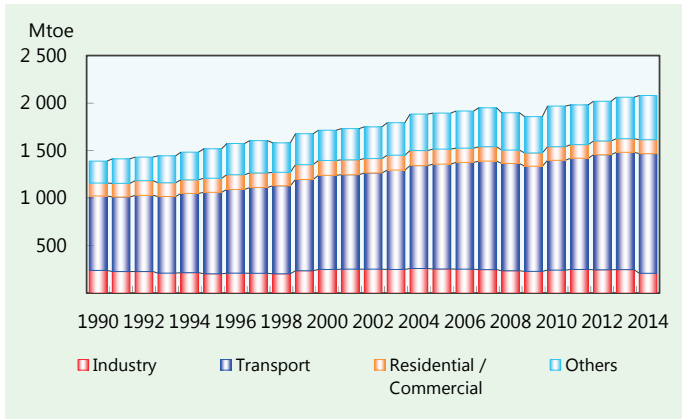
## Coal\* demand by sector APEC



	Mtoe					
	1990	1995	2000	2005	2010	2014
Industry	346.8	408.9	281.4	439.7	619.9	691.8
Transport	11.2	7.1	4.7	4.4	3.2	2.7
Residential / Commercial	148.7	97.0	70.9	82.8	76.9	75.9
Others	14.2	39.6	38.7	71.3	83.5	100.9
<b>Total</b>	<b>520.9</b>	<b>552.7</b>	<b>395.8</b>	<b>598.2</b>	<b>783.5</b>	<b>871.3</b>
	Share (%)					
	1990	1995	2000	2005	2010	2014
Industry	66.6	74.0	71.1	73.5	79.1	79.4
Transport	2.1	1.3	1.2	0.7	0.4	0.3
Residential / Commercial	28.5	17.6	17.9	13.8	9.8	8.7
Others	2.7	7.2	9.8	11.9	10.7	11.6

\*Coal and Coal Products

## Oil demand by sector APEC

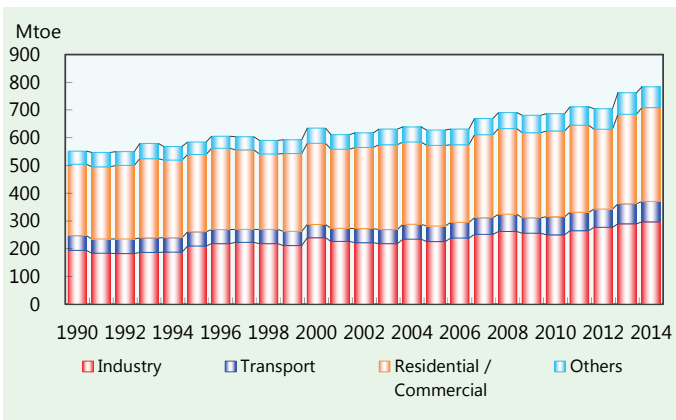


	Mtoe					
	1990	1995	2000	2005	2010	2014
Industry	236.7	203.0	248.5	253.2	241.3	207.9
Transport	784.7	856.5	988.9	1 102.9	1 155.3	1 259.2
Residential / Commercial	135.7	148.0	158.8	158.6	145.1	148.6
Others	230.6	310.6	317.3	380.4	427.7	464.8
<b>Total</b>	<b>1 387.7</b>	<b>1 518.1</b>	<b>1 713.5</b>	<b>1 895.1</b>	<b>1 969.3</b>	<b>2 080.4</b>

	Share (%)					
	1990	1995	2000	2005	2010	2014
Industry	17.1	13.4	14.5	13.4	12.3	10.0
Transport	56.5	56.4	57.7	58.2	58.7	60.5
Residential / Commercial	9.8	9.7	9.3	8.4	7.4	7.1
Others	16.6	20.5	18.5	20.1	21.7	22.3

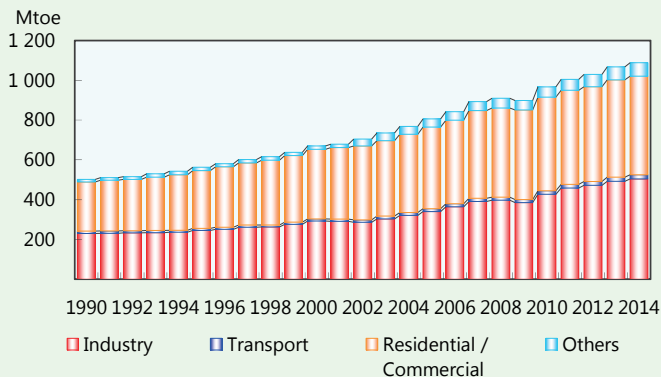
## Gas demand by sector APEC



	Mtoe					
	1990	1995	2000	2005	2010	2014
Industry	194.2	209.7	239.6	225.3	250.3	296.8
Transport	52.5	51.1	47.6	56.1	64.3	73.2
Residential / Commercial	257.3	278.5	292.6	290.6	309.4	337.8
Others	47.6	45.6	54.5	55.4	62.6	75.2
<b>Total</b>	<b>551.5</b>	<b>584.9</b>	<b>634.4</b>	<b>627.4</b>	<b>686.6</b>	<b>783.1</b>

	Share (%)					
	1990	1995	2000	2005	2010	2014
Industry	35.2	35.8	37.8	35.9	36.5	37.9
Transport	9.5	8.7	7.5	8.9	9.4	9.4
Residential / Commercial	46.7	47.6	46.1	46.3	45.1	43.1
Others	8.6	7.8	8.6	8.8	9.1	9.6

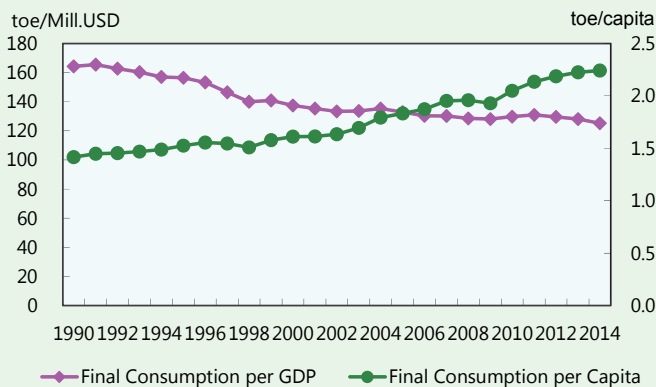
## Electricity demand by sector APEC



	Mtoe					
	1990	1995	2000	2005	2010	2014
Industry	229.4	245.5	292.5	339.6	427.0	504.0
Transport	12.6	10.1	10.9	14.6	17.4	21.0
Residential / Commercial	246.5	291.1	349.8	410.6	470.5	496.2
Others	13.1	15.9	16.0	40.8	51.2	66.4
<b>Total</b>	<b>501.6</b>	<b>562.6</b>	<b>669.3</b>	<b>805.5</b>	<b>966.2</b>	<b>1 087.6</b>

	Share (%)					
	1990	1995	2000	2005	2010	2014
Industry	45.7	43.6	43.7	42.2	44.2	46.3
Transport	2.5	1.8	1.6	1.8	1.8	1.9
Residential / Commercial	49.1	51.7	52.3	51.0	48.7	45.6
Others	2.6	2.8	2.4	5.1	5.3	6.1

## Final consumption per capita and GDP APEC

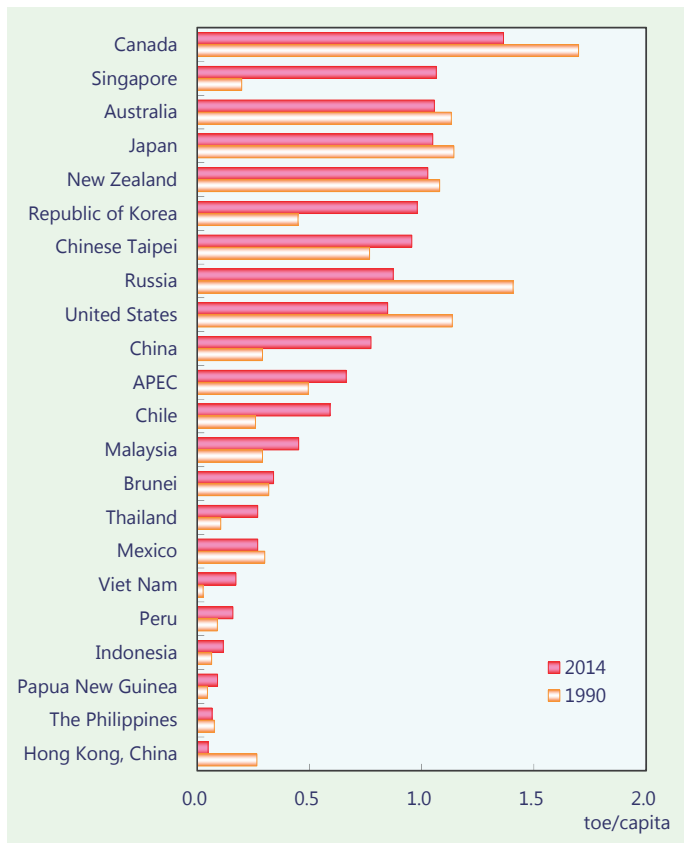


	1990	1995	2000	2005	2010	2014
Population (mill.)	2 286	2 286	2 286	2 286	2 286	2 286
Final Consumption per Capita	1.42	1.53	1.61	1.83	2.05	2.24

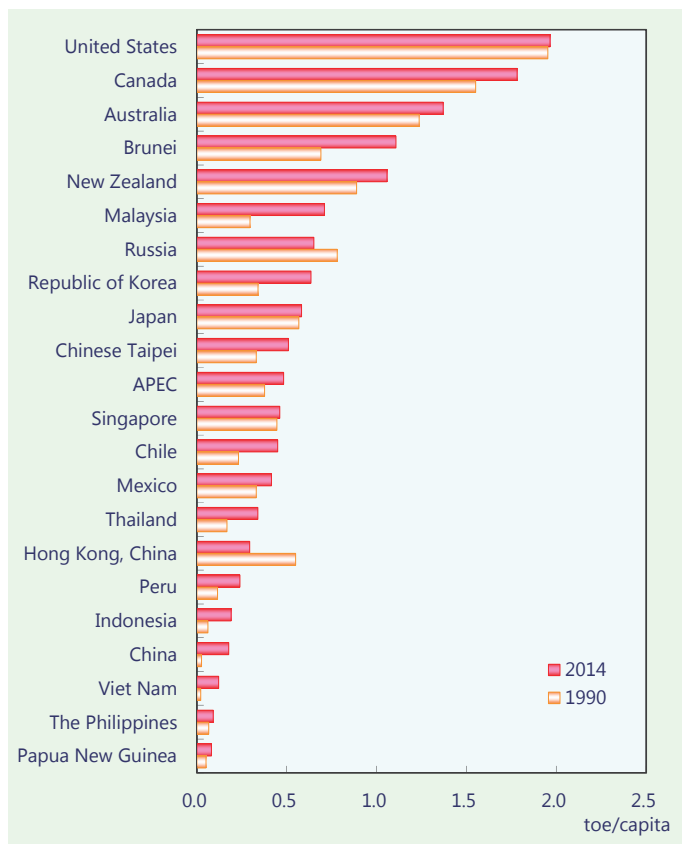
	1990	1995	2000	2005	2010	2014
GDP (bill. US\$)	19 720	22 299	26 781	31 532	36 108	38 574
Final Consumption per GDP	164.26	156.45	137.47	132.94	129.70	129.62



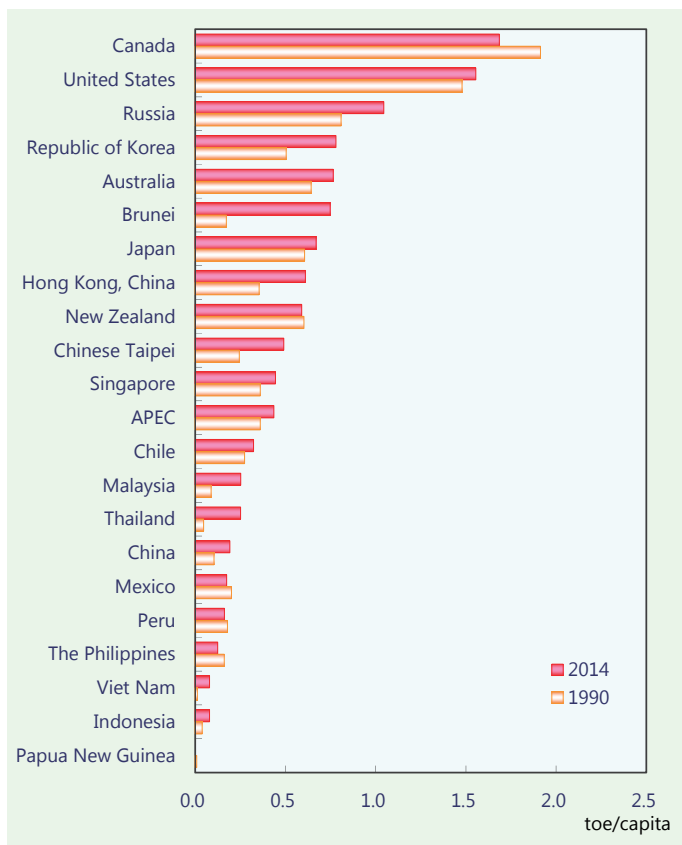
## Energy consumption in industry: APEC



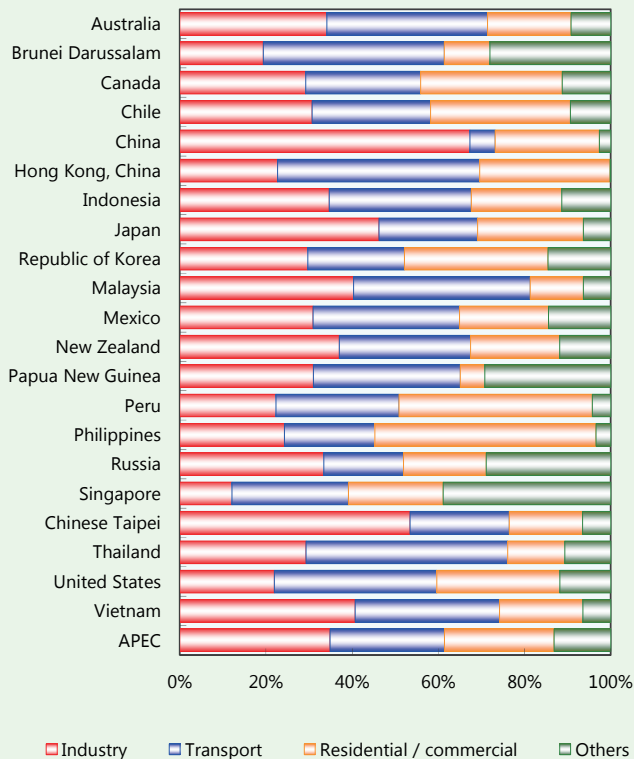
## Energy consumption in transportation: APEC



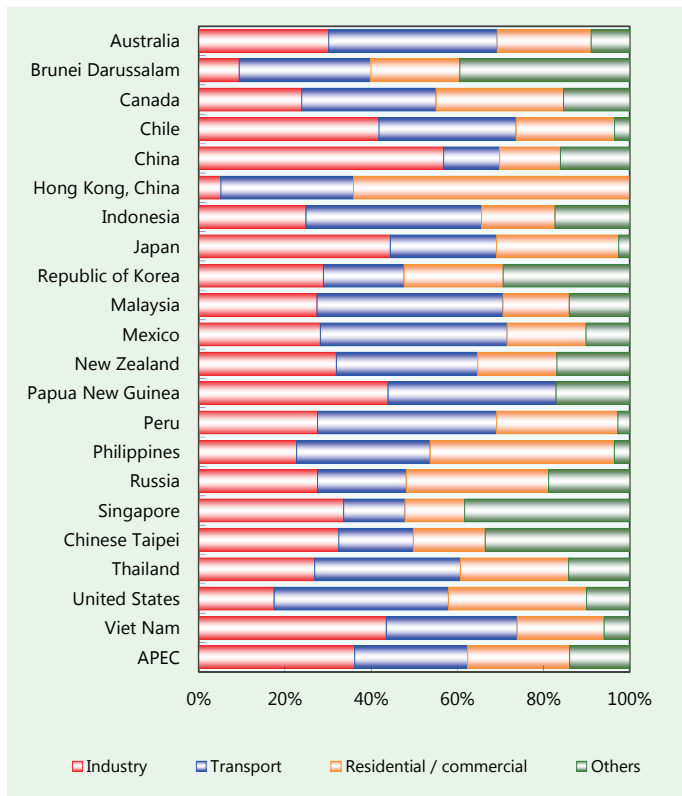
## Energy consumption in residential/ commercial: APEC



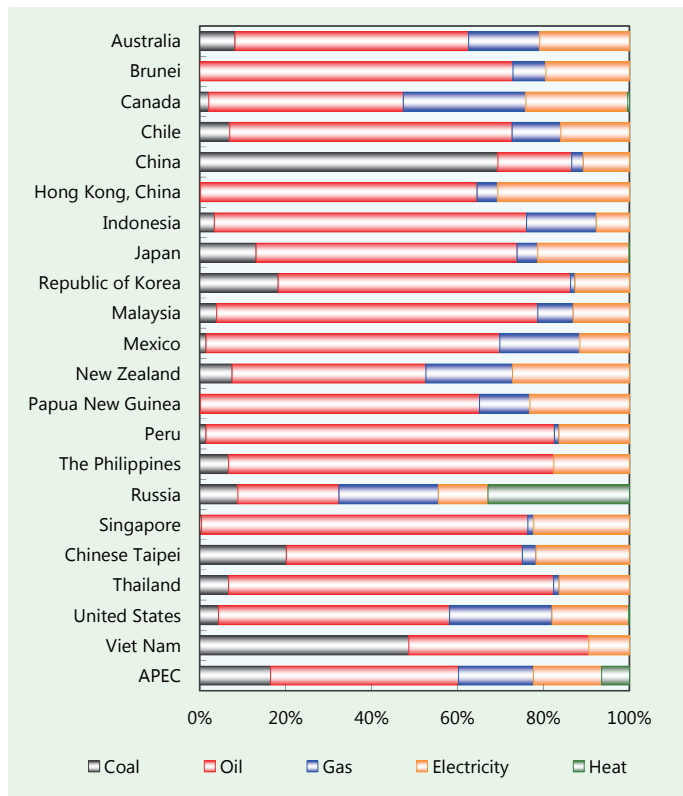
## Final energy consumption by sector 1990



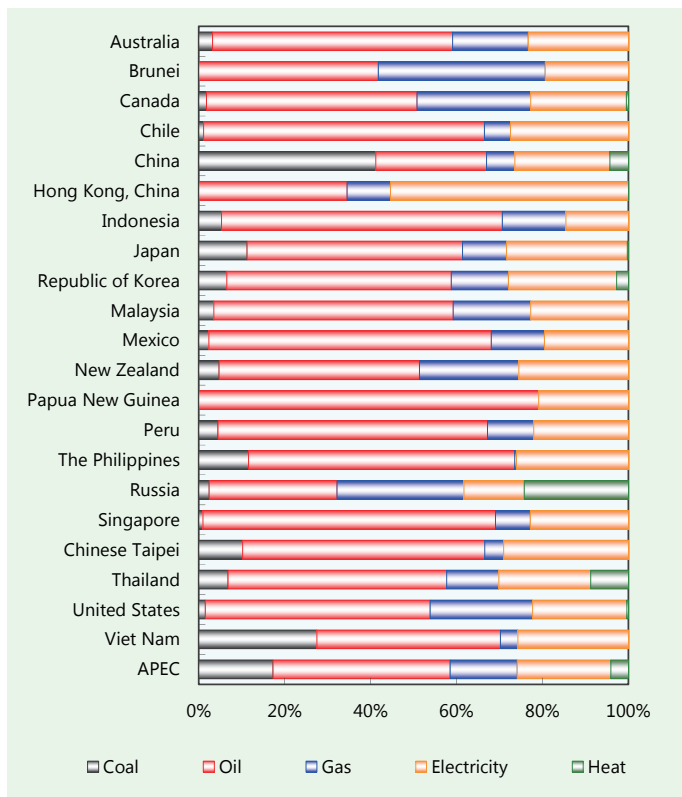
## Final energy consumption by sector 2014



## Final energy consumption by energy 1990



## Final energy consumption by energy 2014



## APEC, 2014

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	3 216 760		1 809 461	4
2 Import	434 913	9 913	1 272 523	492 947
3 Export	- 655 544	- 9 282	- 555 280	- 534 558
4 International Marine Bunkers				- 101 461
5 International Aviation Bunkers				- 78 696
6 Stock Change	- 24 491	- 3 710	- 13 662	- 10 368
7 Total Primary Energy Supply	2 971 638	- 3 079	2 513 041	- 232 132
8 Transfers			- 66 448	95 548
9 Main Activity Producer	-1 530 154	- 9 267	- 7 315	- 47 150
10 Autoproducers	- 170 810	- 41 736	- 685	- 32 136
11 Gas Processing	- 6 772	- 223		3 504
12 Petroleum Refineries			-2 433 956	2 399 285
13 Coal Transformation	- 531 334	260 136		- 1 142
14 Other Transformation			23 318	- 11 326
15 Loss & Own Use	- 51 004	- 18 272	- 5 923	- 104 975
16 Discrepancy	5 652	- 3 521	- 15 735	4 642
17 Total Final Energy Consumption	687 215	184 038	6 298	2 074 117
18 Industry Sector	579 867	177 759	- 5 569	252 008
19 Transport Sector	2 676		18	1 259 787
20 Other Sector	104 672	6 261	78	292 358
20.1 Residential & Commercial	70 175	5 692		148 552
20.2 Agriculture	13 293	237	13	54 530
20.3 Other	21 203	332	65	89 276
21 Non-energy	43 433	22 580	11 789	363 003

## Australia, 2014

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	285 440		19 081	
2 Import	74	52	22 611	20 753
3 Export	- 242 283	- 549	- 12 448	- 2 082
4 International Marine Bunkers				- 720
5 International Aviation Bunkers				- 3 915
6 Stock Change	- 1 200	- 22	80	349
7 Total Primary Energy Supply	42 030	- 519	29 324	14 385
8 Transfers			750	4 700
9 Main Activity Producer	- 37 265	- 21		- 188
10 Autoproducers				- 917
11 Gas Processing				90
12 Petroleum Refineries			- 29 657	28 864
13 Coal Transformation	- 2 881	1 997		
14 Other Transformation			233	
15 Loss & Own Use		- 935	- 57	- 4 297
16 Discrepancy	87	- 23	- 577	139
17 Total Final Energy Consumption	1 971	501	16	42 776
18 Industry Sector	1 966	501	16	4 462
19 Transport Sector				31 003
20 Other Sector	5			5 284
20.1 Residential & Commercial	5			1 101
20.2 Agriculture				2 026
20.3 Other				2 156
21 Non Energy				4 184



Unit: ktoe

Natural Gas. LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
1 666 138	202 129	380 842	81 927	260 912			7 618 173
371 094				3 035	10 296		2 594 721
- 362 185				- 3 709	- 9 539		-2 130 097
							- 101 461
							- 78 696
- 6 238				- 637			- 59 106
1 668 809	202 129	380 842	81 927	259 600	757		7 843 532
						2 188	29 101
- 577 152	- 197 349	- 380 842	- 69 895	- 55 596	1 193 082	122 104	-1 559 534
- 122 438	- 4 781		- 7 974	- 32 172	112 572	123 340	- 176 819
- 4 350							- 7 841
							- 34 670
							- 272 340
- 7 913				- 53 821			- 49 742
- 176 993				- 395	- 205 387	- 39 806	- 602 757
4 563	1		24	5 330	- 2 338	- 285	- 1 667
784 526			4 083	122 947	1 098 686	205 352	5 167 262
329 210			212	62 616	509 989	98 439	2 005 384
73 224					21 020		1 356 724
344 739			3 871	60 331	567 678	106 914	1 486 807
337 785			3 719	54 276	501 114	101 418	1 222 730
3 107			111	4 874	16 350	2 429	94 945
3 847			41	1 181	50 214	3 067	169 132
68 293							509 099

Unit: ktoe

Natural Gas. LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
52 905	1 584		1 616	5 086			365 711
5 964							49 455
- 27 176							- 284 538
							- 720
							- 3 915
							- 794
31 693	1 584		1 616	5 086			125 199
							5 450
- 8 665	- 1 584		- 883	- 247	19 259		- 29 593
- 2 742			- 417	- 487	2 095		- 2 469
							90
							- 793
							- 883
- 2				- 233			- 2
- 7 244					- 3 461		- 15 993
449							74
13 489			316	4 119	17 893		81 081
7 829				2 833	6 836		24 442
287					410		31 701
4 574			316	1 286	10 647		22 111
4 544			316	1 286	10 435		17 687
30					212		2 268
							2 156
800							4 984

## Brunei Darussalam, 2014

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production			6 691	
2 Import			7	392
3 Export			- 6 209	- 85
4 International Marine Bunkers				
5 International Aviation Bunkers				- 76
6 Stock Change			- 89	- 20
7 Total Primary Energy Supply			400	211
8 Transfers				
9 Main Activity Producer				- 11
10 Autoproducers				
11 Gas Processing				18
12 Petroleum Refineries			- 382	397
13 Coal Transformation				
14 Other Transformation				
15 Loss & Own Use				- 13
16 Discrepancy			- 18	21
17 Total Final Energy Consumption				624
18 Industry Sector				123
19 Transport Sector				456
20 Other Sector				45
20.1 Residential & Commercial				17
20.2 Agriculture				
20.3 Other				28
21 Non Energy				

## Canada, 2014

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	34 892		219 220	
2 Import	4 805	639	44 012	13 367
3 Export	- 20 563	- 40	- 151 698	- 22 950
4 International Marine Bunkers				- 367
5 International Aviation Bunkers				- 734
6 Stock Change	- 293	31	- 1 430	- 912
7 Total Primary Energy Supply	18 842	630	110 106	- 11 595
8 Transfers			- 4 179	18 409
9 Main Activity Producer	- 14 944			- 1 367
10 Autoproducers		- 7		- 402
11 Gas Processing				2 194
12 Petroleum Refineries			- 93 088	93 240
13 Coal Transformation	- 2 058	1 112		
14 Other Transformation				
15 Loss & Own Use				- 16 103
16 Discrepancy	- 247		- 12 839	8 194
17 Total Final Energy Consumption	1 593	1 736		92 570
18 Industry Sector	1 581	1 736		5 155
19 Transport Sector				58 777
20 Other Sector	12			14 307
20.1 Residential & Commercial	12			5 464
20.2 Agriculture				4 648
20.3 Other				4 196
21 Non Energy	448	284		18 527

Unit: ktoe							
Natural Gas, LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
10 910							17 601
							399
- 7 652							- 13 946
							- 76
36							- 73
3 294							3 906
- 1 138					345		- 804
- 174					43		- 131
- 17							1
							15
- 1 365						- 60	- 1 438
- 20						- 39	- 56
580						289	1 492
						17	140
							456
19						271	336
19						271	308
							28
560							560

Unit: ktoe							
Natural Gas, LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
137 536	32 901	28 061	2 131	15 264			470 006
18 002				1 076	1 101		83 004
- 65 349				- 1 203	- 5 024		- 266 826
							- 367
							- 734
- 1 458							- 4 062
88 731	32 901	28 061	2 131	15 137	- 3 923		281 021
							14 230
- 8 550	- 30 231	- 28 061	- 2 080	- 415	51 560	878	- 33 209
- 4 581	- 2 671		- 11	- 1 045	4 876	22	- 3 819
- 3 036							- 842
							152
							- 946
				- 1 872			- 1 872
- 31 323				- 2	- 9 219		- 56 647
8 609				163	- 1 219		2 661
49 850			41	11 966	42 075	900	200 730
15 483				8 383	15 499	867	48 703
3 419					424		62 619
28 156			41	3 584	26 152	33	72 284
27 323				3 583	22 865	13	59 260
833					808		6 288
			41		2 480	20	6 736
2 792							22 051

## Chile, 2014

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	2 156		507	
2 Import	5 968	3	9 830	7 294
3 Export	- 1 072	- 104		- 566
4 International Marine Bunkers				- 198
5 International Aviation Bunkers				- 655
6 Stock Change	- 254	27	31	- 28
7 Total Primary Energy Supply	6 798	- 75	10 368	5 847
8 Transfers			1 076	- 1 042
9 Main Activity Producer	- 5 647			- 806
10 Autoproducers				- 165
11 Gas Processing				- 6
12 Petroleum Refineries			- 11 580	9 895
13 Coal Transformation	- 419	273		
14 Other Transformation			7	- 8
15 Loss & Own Use		- 173		- 340
16 Discrepancy	- 530	3	128	227
17 Total Final Energy Consumption	202	28		13 603
18 Industry Sector	200	28		3 824
19 Transport Sector				7 781
20 Other Sector	2			1 866
20.1 Residential & Commercial				1 272
20.2 Agriculture				
20.3 Other	2			594
21 Non Energy				533

## People's Republic of China, 2014

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	1 905 066		213 965	
2 Import	124 790	1	308 374	45 957
3 Export	- 3 329	- 5 785	- 600	- 34 305
4 International Marine Bunkers				- 7 154
5 International Aviation Bunkers				- 7 171
6 Stock Change	- 18 007	- 1 607	- 3 757	- 9 041
7 Total Primary Energy Supply	2 008 519	- 7 391	517 983	- 11 713
8 Transfers				
9 Main Activity Producer	- 819 437	- 1 258	- 89	- 3 239
10 Autoproducers	- 134 391	- 32 437	- 70	- 3 872
11 Gas Processing	- 4 838	- 223		
12 Petroleum Refineries			- 518 282	489 636
13 Coal Transformation	- 403 310	187 709		
14 Other Transformation			10 071	
15 Loss & Own Use	- 49 841	- 6 529	- 5 769	- 4 451
16 Discrepancy	14 079	- 357	23	- 468
17 Total Final Energy Consumption	610 781	139 514	3 868	465 892
18 Industry Sector	508 574	134 705	274	77 948
19 Transport Sector	2 676	18		209 802
20 Other Sector	99 532	4 791		90 117
20.1 Residential & Commercial	65 334	4 360		40 093
20.2 Agriculture	13 154	237		17 554
20.3 Other	21 044	194		32 469
21 Non Energy	42 632	21 481	3 594	88 026

Unit: ktoe							
Natural Gas. LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
676	1 987		185	7 381			12 891
2 940							26 035
							- 1 743
							- 198
							- 655
- 46							- 270
3 570	1 987		185	7 381			36 061
							34
- 1 687	- 1 973		- 164	- 639	5 797		- 5 118
- 59	- 14		- 2	- 2 787	543	46	- 2 439
- 7							- 13
							- 1 685
							- 146
				- 81			- 82
- 466					- 589	- 46	- 1 615
- 84				149	- 35		- 141
1 267			19	4 023	5 715		24 857
520			2	2 186	3 634		10 395
34					89		7 904
597			17	1 837	1 992		6 311
597			17	1 835	1 958		5 680
				1	34		631
115							648

Unit: ktoe							
Natural Gas. LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
121 176	91 533	34 539	13 553	75 579			2 455 412
55 420					581		535 122
- 2 429					- 1 562		- 48 011
							- 7 154
							- 7 171
							- 32 411
174 167	91 533	34 539	13 553	75 579	- 981		2 895 788
- 22 396	- 91 533	- 34 539	- 13 553	- 35 606	439 690	49 195	- 532 765
- 6 052					46 174	41 222	- 89 425
267							- 4 795
							- 28 646
							- 215 601
				- 10 071			
- 26 361					- 81 871	- 12 210	- 187 032
112				- 175	17	7	13 237
119 737				29 726	403 028	78 214	1 850 762
54 254				11 682	275 238	53 117	1 115 793
18 778					9 109		240 383
40 962				18 044	118 681	25 098	397 223
37 042				13 525	78 877	22 039	261 269
74				3 349	8 715	21	43 104
3 846				1 171	31 089	3 037	92 851
5 744							161 476

## Hong Kong, China, 2014

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production				4
2 Import	8 685			16 506
3 Export				- 501
4 International Marine Bunkers				- 7 696
5 International Aviation Bunkers				- 5 873
6 Stock Change	- 545			691
7 Total Primary Energy Supply	8 140			3 130
8 Transfers				
9 Main Activity Producer	- 8 140			- 50
10 Autoproducers				
11 Gas Processing				- 274
12 Petroleum Refineries				
13 Coal Transformation				
14 Other Transformation				
15 Loss & Own Use				
16 Discrepancy				- 453
17 Total Final Energy Consumption				2 354
18 Industry Sector				102
19 Transport Sector				2 045
20 Other Sector				207
20.1 Residential & Commercial				207
20.2 Agriculture				
20.3 Other				
21 Non Energy				

## Indonesia, 2014

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	269 230		47 140	
2 Import	1 493		18 650	32 489
3 Export	- 224 600		- 16 807	- 902
4 International Marine Bunkers				
5 International Aviation Bunkers				
6 Stock Change	- 1 099		3 556	403
7 Total Primary Energy Supply	45 024		52 540	31 990
8 Transfers			- 2 188	2 188
9 Main Activity Producer	- 38 794			- 6 381
10 Autoproducers				
11 Gas Processing				
12 Petroleum Refineries			- 56 018	51 737
13 Coal Transformation	- 10	8		
14 Other Transformation			1 205	- 2 578
15 Loss & Own Use				- 82
16 Discrepancy			4 461	
17 Total Final Energy Consumption	6 220	8		76 873
18 Industry Sector	6 220	8		4 212
19 Transport Sector				47 904
20 Other Sector				11 158
20.1 Residential & Commercial				8 418
20.2 Agriculture				
20.3 Other				2 740
21 Non Energy				13 599

Unit: ktoe							
Natural Gas, LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
			1	63			68
2 258				7	885		28 340
					- 105		- 607
							- 7 696
							- 5 873
							146
2 258			1	70	779		14 379
- 2 258					3 423		- 7 025
			- 1	- 12	4		- 8
274							
				- 12			- 12
					- 429		- 429
415							- 38
689				46	3 778		6 867
29					220		352
					69		2 114
659				46	3 488		4 402
659				41	3 488		4 396
				6			6

Unit: ktoe							
Natural Gas, LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
67 626	1 303		8 634	1 205			395 138
					1		52 633
- 31 243							- 273 552
							2 860
36 383	1 303		8 634	1 205	1		177 079
						2 188	1
- 8 038	- 1 303		- 8 634		19 399		- 43 751
- 2 009							- 2 009
							- 4 281
							- 2
				- 1 205			- 2 578
- 7 332					- 2 320		- 9 734
- 1 557							2 905
17 448					17 080		117 629
13 115					5 668		29 224
28					13		47 945
219					11 398		22 775
219					11 398		20 035
							2 740
4 086							17 685

## Japan, 2014

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	750		560	
2 Import	114 883	2 095	172 618	46 187
3 Export		- 393		- 16 086
4 International Marine Bunkers				- 3 977
5 International Aviation Bunkers				- 5 856
6 Stock Change	853		- 672	- 437
7 Total Primary Energy Supply	116 485	1 701	172 506	19 830
8 Transfers			- 312	312
9 Main Activity Producer	- 54 020	- 4 369	- 7 226	- 12 670
10 Autoproducers	- 11 613	- 3 119		- 10 940
11 Gas Processing				- 1 404
12 Petroleum Refineries			- 165 217	168 247
13 Coal Transformation	- 34 929	31 020		- 1 142
14 Other Transformation				
15 Loss & Own Use	- 334	- 3 096	- 10	- 10 009
16 Discrepancy	- 593	- 3 783	261	- 1 181
17 Total Final Energy Consumption	14 997	18 355		151 043
18 Industry Sector	14 997	17 769		49 846
19 Transport Sector				72 054
20 Other Sector		585		25 686
20.1 Residential & Commercial		585		21 883
20.2 Agriculture				2 389
20.3 Other				1 414
21 Non Energy				3 457

## Republic of Korea, 2014

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	778		783	
2 Import	79 244	279	128 438	39 907
3 Export			- 143	- 58 882
4 International Marine Bunkers				- 8 475
5 International Aviation Bunkers				- 4 287
6 Stock Change	1 396		- 582	- 426
7 Total Primary Energy Supply	81 417	279	128 495	- 32 163
8 Transfers				2 288
9 Main Activity Producer	- 46 367	- 2 026		- 2 028
10 Autoproducers	- 3 423	- 2 342		- 1 648
11 Gas Processing				- 73
12 Petroleum Refineries			- 134 467	133 365
13 Coal Transformation	- 24 055	12 890		
14 Other Transformation			8 998	- 8 673
15 Loss & Own Use		- 3 175		- 6 468
16 Discrepancy	- 2 435	118	- 3 026	2 308
17 Total Final Energy Consumption	5 138	5 745		86 907
18 Industry Sector	5 138	5 020		3 459
19 Transport Sector				30 483
20 Other Sector		725		8 622
20.1 Residential & Commercial		725		4 730
20.2 Agriculture				748
20.3 Other				3 144
21 Non Energy		571		45 555



Unit: ktoe							
Natural Gas. LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
2 696	17 088		7 136	6 330			34 559
104 678							440 460
							- 16 480
							- 3 977
							- 5 856
- 111							- 367
107 263	17 088		7 136	6 330			448 339
- 71 422	- 15 388		- 574	- 1 578	68 645	599	- 98 003
- 3 597	- 1 701		- 6 072	- 7 736	24 280	176	- 20 322
1 351							- 53
							3 030
							- 5 050
- 4 421					- 9 772		- 27 642
- 7	1		2	4 906	- 70	- 74	- 539
29 167			492	1 922	83 083	701	299 759
15 002				1 898	33 664		133 176
79					1 847		73 980
14 085			492	24	47 572	701	89 145
14 085			416	24	47 279	625	84 898
			76		294	76	2 834
							1 414
							3 457

Unit: ktoe							
Natural Gas. LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
289	673	40 760	498	5 440			49 219
44 003							291 870
							- 59 026
							- 8 475
							- 4 287
- 1 166				- 5			- 784
43 126	673	40 760	498	5 435			268 519
							2 288
- 19 382	- 673	- 40 760	- 324	- 122	44 545	1 584	- 65 554
- 752			- 37	- 1 222	2 836	3 373	- 3 215
							- 73
							- 1 102
							- 11 164
				- 374			- 49
- 144					- 4 992	- 180	- 14 960
- 635				16	- 520	- 218	- 4 392
22 213			137	3 733	41 868	4 558	170 299
8 825				2 533	22 326	2 512	49 813
1 212					172		31 868
12 176			137	1 200	19 369	2 046	44 276
12 173			119	1 196	18 204	2 046	39 193
3			18	4	927		1 700
					239		3 383
							46 126

## Malaysia, 2014

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	1 693		31 043	
2 Import	13 695		9 799	16 064
3 Export	- 114		- 11 702	- 10 816
4 International Marine Bunkers				- 241
5 International Aviation Bunkers				- 2 525
6 Stock Change	- 16		- 491	1 400
7 Total Primary Energy Supply	15 258		28 649	3 882
8 Transfers			- 1 944	1 765
9 Main Activity Producer	- 13 639			- 934
10 Autoproducers				- 25
11 Gas Processing				
12 Petroleum Refineries			- 26 344	24 501
13 Coal Transformation				
14 Other Transformation			259	
15 Loss & Own Use				- 2 115
16 Discrepancy	89		- 620	- 83
17 Total Final Energy Consumption	1 708			26 991
18 Industry Sector	1 708			1 534
19 Transport Sector				21 210
20 Other Sector				2 503
20.1 Residential & Commercial				1 516
20.2 Agriculture				1
20.3 Other				986
21 Non Energy				1 743

## Mexico, 2014

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	7 752		144 788	
2 Import	4 760	334	386	29 950
3 Export	- 2		- 64 097	- 9 955
4 International Marine Bunkers				- 823
5 International Aviation Bunkers				- 3 245
6 Stock Change	- 191		- 756	148
7 Total Primary Energy Supply	12 318	334	80 321	16 075
8 Transfers			- 6 612	7 820
9 Main Activity Producer	- 8 138			- 7 083
10 Autoproducers	- 42	- 121		- 1 612
11 Gas Processing				- 792
12 Petroleum Refineries			- 74 076	67 953
13 Coal Transformation	- 2 169	1 240		
14 Other Transformation			63	- 67
15 Loss & Own Use		- 456		- 5 940
16 Discrepancy	- 356		304	- 3 287
17 Total Final Energy Consumption	1 613	996		73 068
18 Industry Sector	1 613	858		5 752
19 Transport Sector				51 173
20 Other Sector		139		12 201
20.1 Residential & Commercial				7 688
20.2 Agriculture				2 899
20.3 Other		139		1 614
21 Non Energy		139		5 556

Unit: ktoe							
Natural Gas. LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
53 190	1 151		20	723			87 821
7 924					2		47 483
- 31 901				- 77	- 1		- 54 612
							- 241
							- 2 525
				- 193			700
29 213	1 151		20	453	1		78 626
							- 180
- 14 964	- 1 151		- 20	- 108	12 280		- 18 536
- 1 541				- 85	402		- 1 250
- 1 649							- 1 649
							- 1 843
- 1 537				- 259			- 1 537
- 1 368					- 1 341		- 4 824
580					- 305		- 339
8 734					11 036		48 469
4 411					5 070		13 314
250					22		21 483
21					5 944		8 468
21					5 909		7 446
					36		37
							986
4 052							5 794

Unit: ktoe							
Natural Gas. LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
37 258	3 345	2 522	3 866	8 740			208 271
23 622					183		59 235
- 39					- 228		- 74 322
							- 823
							- 3 245
- 335							- 1 135
60 506	3 345	2 522	3 866	8 740	- 45		187 981
							1 208
- 24 733	- 3 280	- 2 522	- 3 282		22 210		- 26 828
- 7 175	- 64		- 392	- 1 769	3 718		- 7 457
520							- 272
							- 6 122
							- 929
							- 4
- 13 490					- 4 930		- 24 817
- 1 901					738		- 4 502
13 727			193	6 970	21 691		118 258
11 971			10	901	12 240		33 344
17					97		51 288
1 095			183	6 069	9 354		29 041
1 095			183	6 069	6 610		21 645
					862		3 761
					1 882		3 634
644							6 338

## New Zealand, 2014

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	2 342		2 078	
2 Import	236		5 263	2 330
3 Export	- 1 246		- 1 750	- 275
4 International Marine Bunkers				- 288
5 International Aviation Bunkers				- 841
6 Stock Change	68		- 22	30
7 Total Primary Energy Supply	1 400		5 570	955
8 Transfers			- 231	240
9 Main Activity Producer	- 301			
10 Autoproducers	- 6	- 174		
11 Gas Processing				
12 Petroleum Refineries			- 5 388	5 429
13 Coal Transformation	- 437	266		
14 Other Transformation				
15 Loss & Own Use	- 37	- 53		- 356
16 Discrepancy	- 38		49	- 194
17 Total Final Energy Consumption	580	39		6 074
18 Industry Sector	509	39		403
19 Transport Sector				4 693
20 Other Sector	71			615
20.1 Residential & Commercial	33			182
20.2 Agriculture	38			340
20.3 Other				93
21 Non Energy				362

## Papua New Guinea, 2014

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production			819	
2 Import			1 115	846
3 Export			- 787	
4 International Marine Bunkers				
5 International Aviation Bunkers				
6 Stock Change			- 68	- 43
7 Total Primary Energy Supply			1 079	803
8 Transfers			- 17	18
9 Main Activity Producer				- 80
10 Autoproducers				- 534
11 Gas Processing				
12 Petroleum Refineries			- 1 063	989
13 Coal Transformation				
14 Other Transformation				
15 Loss & Own Use				
16 Discrepancy				- 1
17 Total Final Energy Consumption				1 194
18 Industry Sector				435
19 Transport Sector				588
20 Other Sector				171
20.1 Residential & Commercial				
20.2 Agriculture				
20.3 Other				171
21 Non Energy				

Unit: ktoe							
Natural Gas. LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
4 385	2 093		4 938	1 150			16 985
				1			7 831
							- 3 272
							- 288
							- 841
8							84
4 393	2 093		4 938	1 151			20 500
							9
- 1 229	- 2 092		- 4 614	- 39	3 625		- 4 650
- 37	- 1		- 36	- 119	120	20	- 233
							40
							- 171
							- 4
				- 4			- 4
- 231					- 409	- 20	- 1 106
114					- 14		- 83
3 010			287	989	3 323		14 302
1 372			200	847	1 193		4 563
					5		4 699
363			87	142	2 124		3 403
328			70	142	1 867		2 623
35			17		229		660
					27		120
1 275							1 637

Unit: ktoe							
Natural Gas. LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
1 502	88		363				2 772
							1 961
- 1 354							- 2 142
							- 112
147	88		363				2 479
							1
	- 57				81		- 56
- 147	- 31		- 363		278		- 797
							- 73
					- 44		- 44
							- 1
					315		1 509
					228		663
							588
					87		258
					87		258

## Peru, 2014

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	147		7 506	
2 Import	370	9	4 212	2 659
3 Export	- 177	- 24	- 783	- 3 198
4 International Marine Bunkers				
5 International Aviation Bunkers				
6 Stock Change	441	74	- 78	- 291
7 Total Primary Energy Supply	782	59	10 857	- 830
8 Transfers			- 1 473	1 577
9 Main Activity Producer	- 44			- 100
10 Autoproducers	- 158			- 205
11 Gas Processing				
12 Petroleum Refineries			- 9 566	9 402
13 Coal Transformation				
14 Other Transformation			186	
15 Loss & Own Use				- 270
16 Discrepancy	53		- 4	147
17 Total Final Energy Consumption	633	59		9 721
18 Industry Sector	633	59		1 249
19 Transport Sector				6 761
20 Other Sector				1 387
20.1 Residential & Commercial				1 225
20.2 Agriculture				46
20.3 Other				116
21 Non Energy				325

## The Philippines, 2014

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	4 012		975	
2 Import	8 013		8 717	8 821
3 Export	- 3 044		- 942	- 671
4 International Marine Bunkers				- 89
5 International Aviation Bunkers				- 1 040
6 Stock Change	1 661		- 539	- 181
7 Total Primary Energy Supply	10 642		8 211	6 840
8 Transfers				
9 Main Activity Producer	- 8 227			- 1 378
10 Autoproducers				
11 Gas Processing				
12 Petroleum Refineries			- 8 319	7 735
13 Coal Transformation				
14 Other Transformation			349	
15 Loss & Own Use				
16 Discrepancy			- 241	- 261
17 Total Final Energy Consumption	2 415			12 936
18 Industry Sector	2 261			1 300
19 Transport Sector				8 813
20 Other Sector	154			2 372
20.1 Residential & Commercial				2 296
20.2 Agriculture				31
20.3 Other	154			46
21 Non Energy	154			450

Unit: ktoe							
Natural Gas, LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
11 849	1 909		25	2 646			24 082
				370			7 620
- 4 624							- 8 805
				- 254			- 108
7 225	1 909		25	2 762			22 788
							105
- 3 580	- 1 857		- 39	- 115	3 655		- 2 080
- 195	- 52			- 302	260		- 651
							- 164
				- 247			- 61
- 1 585					- 500		- 2 355
- 195			22		- 1		22
1 670			8	2 098	3 414		17 603
906				36	1 972		4 854
549					3		7 312
216			8	2 063	1 439		5 112
216			8	2 063	1 439		4 950
							46
							116
							325

Unit: ktoe							
Natural Gas, LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
3 061	786		8 879	9 851			27 564
				190			25 741
							- 4 656
							- 89
							- 1 040
				- 9			932
3 061	786		8 879	10 032			48 452
- 2 872	- 786		- 8 879	- 107	6 644		- 15 605
							- 584
				- 2 373			- 2 024
- 111					- 1 197		- 1 308
				2			- 501
78				7 553	5 448		28 430
78				1 121	1 843		6 865
					10		8 822
				6 432	3 595		12 461
				6 429	3 417		12 141
				1	157		189
				2	21		131
							605

## The Russian Federation, 2014

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	189 743		528 661	
2 Import	15 802	104	1 481	2 216
3 Export	- 98 422	- 1 749	- 224 551	- 116 333
4 International Marine Bunkers				- 14 915
5 International Aviation Bunkers				- 5 662
6 Stock Change	- 1 419	- 107	- 4 687	2
7 Total Primary Energy Supply	105 705	- 1 752	300 904	- 134 693
8 Transfers				
9 Main Activity Producer	- 45 093	- 1 250		- 1 586
10 Autoproducers	- 13 484	- 1 713	- 615	- 8 650
11 Gas Processing				
12 Petroleum Refineries			- 294 215	288 107
13 Coal Transformation	- 40 658	12 858		
14 Other Transformation				
15 Loss & Own Use	- 752	- 1 131	- 87	- 14 259
16 Discrepancy	- 1 765	6	- 5 876	5 431
17 Total Final Energy Consumption	3 953	7 017	111	134 349
18 Industry Sector	1 436	6 995	32	58 760
19 Transport Sector				60 381
20 Other Sector	2 518	21	78	15 207
20.1 Residential & Commercial	2 434	21		10 698
20.2 Agriculture	82		13	3 776
20.3 Other	2		65	733
21 Non Energy	175			45 026

## Singapore, 2014

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production				
2 Import	389	7	42 394	109 330
3 Export			- 584	- 85 113
4 International Marine Bunkers				- 40 824
5 International Aviation Bunkers				- 7 214
6 Stock Change			- 156	- 102
7 Total Primary Energy Supply	389	7	41 653	- 23 924
8 Transfers			7 413	- 7 412
9 Main Activity Producer	- 229			- 29
10 Autoproducers				- 229
11 Gas Processing				
12 Petroleum Refineries			- 49 066	47 433
13 Coal Transformation				
14 Other Transformation				
15 Loss & Own Use				- 1 827
16 Discrepancy				- 2 098
17 Total Final Energy Consumption	160	7		11 914
18 Industry Sector	160	7		2 864
19 Transport Sector				2 263
20 Other Sector				108
20.1 Residential & Commercial				108
20.2 Agriculture				
20.3 Other				
21 Non Energy				6 677



Unit: ktoe							
Natural Gas. LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
517 542	15 234	47 463	418	7 065			1 306 126
7 061				2	570		27 236
- 155 745				- 10	- 1 262		- 598 071
							- 14 915
							- 5 662
2 815				16			- 3 381
371 673	15 234	47 463	418	7 073	- 692		711 333
- 145 322	- 15 101	- 47 463	- 418		85 944	59 611	- 110 679
- 76 363	- 133			- 4 371	5 739	72 546	- 27 044
							- 6 108
							- 27 800
- 2 034							- 2 034
- 16 043				- 170	- 27 376	- 22 706	- 82 525
1 653				8	- 161		- 705
133 564				2 539	63 453	109 452	454 438
67 479				485	28 698	37 523	201 409
25 347					7 762		93 491
40 738				2 054	26 993	71 929	159 539
39 876				1 892	25 602	69 588	150 112
862				161	1 369	2 332	8 594
					23	9	833
30 940							76 142

Unit: ktoe							
Natural Gas. LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
			3	646			650
10 317				44			162 482
							- 85 698
							- 40 824
							- 7 214
- 98							- 356
10 219			3	691			29 040
							1
- 8 065			- 3	- 691	3 814		- 5 204
- 902					433		- 697
							- 1 634
- 13					- 256		- 2 096
182							- 1 916
1 421					3 991		17 493
1 252					1 596		5 880
19					210		2 493
150					2 185		2 444
149					2 165		2 422
1					20		21
							6 677

## Chinese Taipei, 2014

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production			- 66	19 395
2 Import	36 695	115	45 349	- 16 941
3 Export		- 47		- 1 173
4 International Marine Bunkers				- 2 400
5 International Aviation Bunkers				- 156
6 Stock Change	88		- 821	- 1 275
7 Total Primary Energy Supply	36 783	68	44 462	- 767
8 Transfers				- 1 580
9 Main Activity Producer	- 19 027			- 576
10 Autoproducers	- 5 282	- 1 054		
11 Gas Processing				
12 Petroleum Refineries			- 44 647	43 981
13 Coal Transformation	- 6 005	3 420		
14 Other Transformation			72	
15 Loss & Own Use		- 1 248		- 1 586
16 Discrepancy	- 1 182	515	113	583
17 Total Final Energy Consumption	5 288	1 702		38 780
18 Industry Sector	5 288	1 702		2 220
19 Transport Sector				11 797
20 Other Sector				2 400
20.1 Residential & Commercial				2 053
20.2 Agriculture				4
20.3 Other				343
21 Non Energy	25	106		22 363

## Thailand, 2014

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	4 730		17 417	
2 Import	6 961	6 226	41 892	3 780
3 Export	- 18		- 645	- 10 238
4 International Marine Bunkers				- 4 757
5 International Aviation Bunkers				- 158
6 Stock Change	- 2 709	- 2 152	3 850	- 11 374
7 Total Primary Energy Supply	8 965	4 075	62 514	- 4 754
8 Transfers			- 4 746	- 390
9 Main Activity Producer	- 8 296	- 117		- 7
10 Autoproducers				
11 Gas Processing				
12 Petroleum Refineries			- 53 568	44 089
13 Coal Transformation				
14 Other Transformation			1 874	
15 Loss & Own Use				- 1 447
16 Discrepancy	3		- 6 075	- 1 216
17 Total Final Energy Consumption	672	3 957		34 410
18 Industry Sector	672	3 957	- 5 891	4 966
19 Transport Sector				20 024
20 Other Sector				6 541
20.1 Residential & Commercial				2 582
20.2 Agriculture				3 959
20.3 Other				
21 Non Energy			5 891	2 880

Unit: ktoe							
Natural Gas. LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
303	640	11 047	277	1 703			13 903
16 849							118 404
							- 16 988
							- 1 173
							- 2 400
- 2							- 892
17 150	640	11 047	277	1 703			110 854
							- 767
- 12 694	- 640	- 11 047	- 130		18 969		- 26 148
- 68			- 46	- 1 631	3 394		- 5 262
4							4
							- 665
							- 2 584
				- 72			
- 335					- 1 766		- 4 936
- 1 051					- 645		- 1 666
3 007			101		19 952		68 830
1 657					11 616		22 484
					114		11 911
1 350			101		8 222		12 073
1 350			101		7 979		11 482
					164		168
					80		423
							22 493

Unit: ktoe							
Natural Gas. LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
31 998	458		213	5 928			60 744
9 802					1 054		69 716
					- 137		- 11 038
							- 4 757
				1			- 1 168
41 800	458		213	5 928	917		113 496
							8
- 22 576	- 458		- 200		12 559		- 19 478
- 1 804			- 1	- 3 542	2 528	5 933	3 108
- 48							- 48
							- 9 478
				- 2 386			- 512
- 9 164					- 1 461		- 12 071
2					- 83		- 7 368
8 212			12		14 461	5 933	67 657
2 740					5 871		12 315
2 826					9		22 859
1			12		8 581	5 933	21 067
1			12		8 466	5 933	16 993
					36		3 995
					80		80
2 646							11 416

## United States, 2014

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	485 031		549 939	
2 Import	6 315	48	407 372	64 111
3 Export	- 56 604	- 592	- 52 042	- 143 490
4 International Marine Bunkers				- 14 521
5 International Aviation Bunkers				- 22 446
6 Stock Change	- 2 560	47	- 7 031	- 1 620
7 Total Primary Energy Supply	432 182	- 497	898 238	- 117 966
8 Transfers			- 53 730	60 419
9 Main Activity Producer	- 394 047	- 226		- 7 076
10 Autoproducers	- 2 413	- 769		- 2 352
11 Gas Processing	- 1 934			3 751
12 Petroleum Refineries			- 850 405	878 248
13 Coal Transformation	- 14 404	7 342		
14 Other Transformation				
15 Loss & Own Use	- 40	- 1 476		- 35 412
16 Discrepancy	- 1 513		8 202	- 3 165
17 Total Final Energy Consumption	17 831	4 374	2 304	776 446
18 Industry Sector	16 978	4 374		21 741
19 Transport Sector				601 058
20 Other Sector	853			89 563
20.1 Residential & Commercial	853			35 453
20.2 Agriculture				15 678
20.3 Other				38 433
21 Non Energy			2 304	102 517

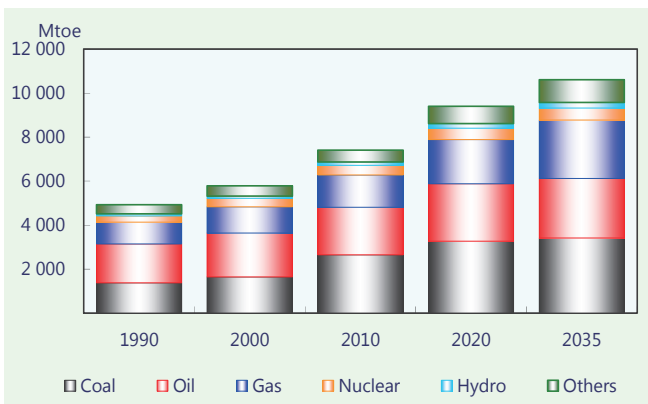
## Viet Nam, 2014

	Coal	Coal Products	Crude Oil, NGL	Petroleum Products
1 Indigenous Production	22 998		18 355	
2 Import	1 734			10 593
3 Export	- 4 069		- 9 492	- 1 167
4 International Marine Bunkers				
5 International Aviation Bunkers				
6 Stock Change	- 706			26
7 Total Primary Energy Supply	19 957		8 863	9 453
8 Transfers			- 255	278
9 Main Activity Producer	- 8 501			- 175
10 Autoproducers				
11 Gas Processing				
12 Petroleum Refineries			- 8 608	6 036
13 Coal Transformation				
14 Other Transformation				
15 Loss & Own Use				
16 Discrepancy				
17 Total Final Energy Consumption	11 456			15 592
18 Industry Sector	9 933			1 651
19 Transport Sector				10 721
20 Other Sector	1 524			1 996
20.1 Residential & Commercial	1 504			1 565
20.2 Agriculture	20			432
20.3 Other				
21 Non Energy				1 224

Unit: ktoe							
Natural Gas. LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
602 299	24 211	216 450	29 164	106 064			2 013 158
62 255				1 344	5 720		547 164
- 34 672				- 2 418	- 1 144		- 290 961
							- 14 521
							- 22 446
- 5 881				- 193			- 17 238
624 001	24 211	216 450	29 164	104 797	4 576		2 215 156
							6 688
- 190 103	- 24 097	- 216 450	- 26 090	- 15 881	358 322	10 237	- 505 411
- 16 250	- 115		- 596	- 7 064	14 850		- 14 708
							1 817
							27 842
							- 7 062
- 4 340				- 34 630			- 38 970
- 55 998				- 223	- 51 998	- 4 643	- 149 791
- 2 104				262			1 682
355 206			2 478	47 261	325 750	5 594	1 537 244
120 829				29 712	70 609	4 420	268 663
20 379					654		622 091
199 358			2 478	17 550	254 487	1 174	565 463
198 088			2 478	16 190	237 954	1 174	492 189
1 270				1 360	2 380		20 687
					14 153		52 586
14 640							119 461

Unit: ktoe							
Natural Gas. LNG	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
8 937	5 146		7	49			55 492
					200		12 527
					- 76		- 14 804
							- 679
8 937	5 146		7	49	124		52 536
							23
- 7 478	- 5 146		- 7	- 49	12 317		- 9 040
							- 2 572
					- 1 395		- 1 395
1 458					11 045		39 552
1 458					5 950		18 992
							10 721
					5 095		8 615
					4 933		8 001
					163		615
							1 224

## Primary energy supply outlook by energy

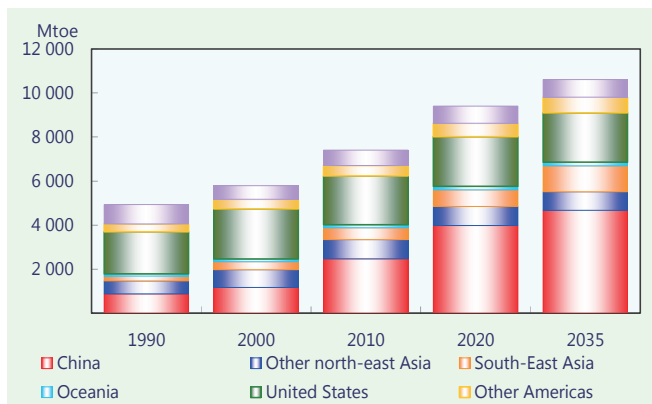


	Mtoe				
	1990	2000	2010	2020	2035
Coal	1 377	1 640	2 656	3 270	3 411
Oil	1 761	2 003	2 160	2 605	2 704
Gas	994	1 184	1 467	2 014	2 665
Nuclear	286	390	432	516	543
Hydro	92	107	152	210	247
Others	421	461	533	790	1 042
<b>Total</b>	<b>4 931</b>	<b>5 786</b>	<b>7 400</b>	<b>9 403</b>	<b>10 611</b>

	Share (%)				
	1990	2000	2010	2020	2035
Coal	27.9	28.3	35.9	34.8	32.1
Oil	35.7	34.6	29.2	27.7	25.5
Gas	20.2	20.5	19.8	21.4	25.1
Nuclear	5.8	6.7	5.8	5.5	5.1
Hydro	1.9	1.9	2.1	2.2	2.3
Others	8.5	8.0	7.2	8.4	9.8

Source: Asia Pacific Energy Research Centre, May 2016.

## Primary energy supply outlook by region



	Mtoe				
	1990	2000	2010	2020	2035
China	871	1 161	2 469	3 974	4 674
Other north-east Asia	589	806	874	862	840
South-East Asia	223	367	530	769	1 175
Oceania	100	126	145	159	175
United States	1 915	2 273	2 215	2 253	2 241
Other Americas	355	434	478	608	716
Russia	879	619	690	778	790
<b>APEC 21</b>	<b>4 931</b>	<b>5 786</b>	<b>7 400</b>	<b>9 403</b>	<b>10 611</b>
	Share (%)				
	1990	2000	2010	2020	2035
China	17.7	20.1	33.4	42.3	44.0
Other north-east Asia	11.9	13.9	11.8	9.2	7.9
South-East Asia	4.5	6.3	7.2	8.2	11.1
Oceania	2.0	2.2	2.0	1.7	1.6
United States	38.8	39.3	29.9	24.0	21.1
Other Americas	7.2	7.5	6.5	6.5	6.8
Russia	17.8	10.7	9.3	8.3	7.4

Other north-east Asia includes Hong Kong, China; Japan; Republic of Korea and Chinese Taipei.  
Other Americas includes Canada, Chile, Mexico, and Peru.

## Selected energy indicators APEC region

	Population			Real GDP			Real GDP	
	Millions			Billions of 2010 Price and 2010 USD			Billions of 2010 Price and 2010 PPP	
	1990	2000	2014	1990	2000	2014	1990	2000
APEC	2 286	2 555	2 828	19 720	26 781	40 943	22 491	31 501
North-east Asia	1 328	1 465	1 573	6 020	8 490	15 888	6 251	10 357
China	1 135	1 263	1 364	824	2 224	8 230	1 686	4 550
Hong Kong, China	6	7	7	104	153	258	151	222
Japan	124	127	127	4 553	5 093	5 643	3 580	4 005
Republic of Korea	43	47	50	377	710	1 234	519	977
Chinese Taipei	20	22	23	162	309	523	315	603
South-East Asia	387	458	548	724	1 165	2 328	1 813	2 893
Brunei Darussalam				9	11	12	19	24
Indonesia	181	212	254	300	453	942	796	1 203
Malaysia	18	23	30	82	163	314	186	371
The Philippines	62	78	99	95	125	251	243	323
Singapore	3	4	5	68	134	281	102	204
Thailand	57	63	68	142	218	382	369	567
Viet Nam	66	78	91	29	61	145	97	202
Oceania	25	28	35	725	1 002	1 501	547	755
Australia	17	19	23	636	881	1 325	462	639
New Zealand	3	4	5	85	114	162	79	106
Papua New Guinea	4	5	7	4	7	13	7	10
Americas	398	457	529	10 837	15 172	19 548	11 165	15 669
Canada	28	31	36	1 014	1 343	1 774	856	1 134
Mexico	86	103	125	620	881	1 179	1 021	1 452
United States	250	282	319	9 064	12 713	16 157	9 064	12 713
Chile	13	15	18	80	149	257	110	205
Peru	22	26	31	59	86	182	113	165
Russia	148	147	144	1 414	952	1 679	2 715	1 827



	Energy Indigenous Production			Net Import			Total Primary Energy Supply			
	Mtoe			Mtoe			Mtoe			
	2014	1990	2000	2014	1990	2000	2014	1990	2000	
54 811	4 635	4 961	7 618	151	628	465	4 635	5 494	7 844	
24 369	814	1 091	2 553	461	714	1 273	1 238	1 747	3 738	
16 841	706	940	2 455	- 30	33	487	654	951	2 896	PRC
373				11	18	28	11	15	14	HKC
4 437	75	105	35	371	420	424	435	514	448	JPN
1 698	23	35	49	70	166	233	93	188	269	ROK
1 020	11	11	14	39	76	101	45	79	111	CT
5 788	217	351	645	- 51	- 39	- 87	149	284	503	
28	16	17	18	- 14	- 15	- 14	2	2	4	BD
2 501	119	184	395	- 66	- 82	- 221	53	101	177	INA
717	46	76	88	- 26	- 27	- 7	21	48	79	MAS
646	17	20	28	12	20	21	28	39	48	RP
426			1	25	41	77	12	19	29	SIN
994	12	29	61	18	35	59	28	60	113	THA
477	6	26	55		- 10	- 2	5	15	53	VN
1 132	174	252	385	- 66	- 127	- 231	100	126	148	
961	158	234	366	- 65	- 127	- 235	86	108	125	AUS
150	11	14	17	2	3	5	13	17	20	NZ
20	5	4	3	- 4	- 3		1	1	2	PNG
20 298	2 138	2 289	2 728	219	429	80	2 269	2 717	2 743	
1 498	276	375	470	- 59	- 128	- 184	211	254	281	CDA
1 943	196	227	208	- 70	- 71	- 15	124	150	188	MEX
16 157	1 648	1 669	2 013	342	606	256	1 910	2 276	2 215	USA
353	8	9	13	7	18	24	14	25	36	CHL
348	11	9	24	- 1	3	- 1	10	12	23	PE
3 223	1 293	978	1 306	- 413	- 350	- 571	879	619	711	RUS

	Total Final Energy Consumption			Final Consumption of Electricity			Total Primary Energy Supply	
	Mtoe			TWh			toe / Person	
	1990	2000	2014	1990	2000	2014	1990	2000
APEC	3 243	3 694	5 167	5 838	7 805	12 775	2.03	2.15
North-east Asia	897	1 151	2 397	1 543	2 460	6 415	0.93	1.19
China	490	597	1 851	606	1 036	4 686	0.58	0.75
Hong Kong, China	7	11	7	24	36	44	1.87	2.26
Japan	306	362	300	745	964	966	3.52	4.05
Republic of Korea	65	127	170	94	263	487	2.17	4.01
Chinese Taipei	29	54	69	74	160	232	2.23	3.55
South-East Asia	96	176	321	130	347	737	0.39	0.62
Brunei Darussalam		1	1	1	2	3	8.36	6.32
Indonesia	34	64	118	31	109	199	0.29	0.48
Malaysia	13	30	48	20	61	128	1.14	2.06
The Philippines	19	23	28	21	37	63	0.46	0.50
Singapore	5	8	17	13	27	46	3.78	4.67
Thailand	20	39	68	38	88	168	0.49	0.96
Viet Nam	4	12	40	6	22	128	0.08	0.19
Oceania	67	83	97	159	209	250	4.08	4.45
Australia	57	70	81	129	173	208	5.07	5.65
New Zealand	10	13	14	28	34	39	3.84	4.40
Papua New Guinea	1	1	2	2	2	4	0.21	0.21
Americas	1 558	1 864	1 899	3 179	4 180	4 635	5.70	5.95
Canada	162	192	201	418	482	489	7.60	8.24
Mexico	83	95	118	100	145	252	1.44	1.46
United States	1 294	1 546	1 537	2 634	3 499	3 788	7.65	8.06
Chile	11	20	25	15	37	66	1.07	1.66
Peru	9	11	18	12	17	40	0.46	0.48
Russia	625	418	454	827	609	738	5.93	4.23

	Total Primary Energy Supply per Real GDP			Total Primary Energy Supply per Real GDP			Total Final Energy Consumption per Capita			
	toe / Million 2010 USD			toe / Million 2010 PPP			toe / Person			
2014	1990	2000	2014	1990	2000	2014	1990	2000	2014	
2.77	235.1	205.1	191.6	206.1	174.4	143.1	1.42	1.45	1.83	
2.38	205.6	205.8	235.3	198.0	168.7	153.4	0.68	0.79	1.52	
2.12	793.6	427.7	351.9	387.8	209.0	171.9	0.43	0.47	1.36	PRC
1.99	102	98	56	71	68	39	1.17	1.68	0.95	HKC
3.53	95	101	79	121	128	101	2.48	2.85	2.36	JPN
5.33	247	265	218	180	193	158	1.51	2.70	3.38	ROK
4.73	281	255	212	144	131	109	1.44	2.40	2.94	CT
0.92	206	244	216	82	98	87	0.25	0.39	0.59	
9.36	248	193	315	111	86	141	1.64	2.25	3.58	BD
0.70	178	223	188	67	84	71	0.19	0.30	0.46	INA
2.63	253	297	250	111	130	110	0.72	1.27	1.62	MAS
0.49	299	311	193	116	121	75	0.31	0.30	0.29	RP
5.31	171	140	103	113	92	68	1.65	2.07	3.20	SIN
1.68	197	277	297	76	107	114	0.36	0.62	1.00	THA
0.58	184	243	363	56	74	110	0.06	0.15	0.44	VN
4.18	138	126	99	183	167	131	2.73	2.94	2.73	
5.34	136	123	94	187	169	130	3.32	3.63	3.46	AUS
4.55	151	149	126	163	160	136	2.92	3.35	3.17	NZ
0.33	198	172	186	132	115	124	0.15	0.16	0.20	PNG
5.19	209	179	140	203	173	135	3.92	4.08	3.59	
7.91	208	189	158	247	224	188	5.82	6.22	5.65	CDA
1.50	200	170	159	121	103	97	0.97	0.93	0.94	MEX
6.95	211	179	137	211	179	137	5.18	5.48	4.82	USA
2.03	175	169	140	128	123	102	0.84	1.34	1.40	CHL
0.74	169	143	125	88	75	66	0.40	0.42	0.57	PE
4.95	622	651	424	324	339	221	4.22	2.85	3.16	RUS

	Energy Related CO <sub>2</sub> Emission			CO <sub>2</sub> Emission per Capita		
	Mt-C			t-C / Person		
	1990	2000	2014	1990	2000	2014
APEC	3 396	3 954	5 705	1.49	1.55	2.02
North-east Asia	971.3	1 337.3	3 002.8	0.73	0.91	1.91
China	581.5	837.6	2 444.7	0.51	0.66	1.79
Hong Kong, China	8.9	8.5	11.4	1.57	1.28	1.57
Japan	288.6	317.5	324.7	2.34	2.50	2.55
Republic of Korea	62.4	115.5	151.2	1.46	2.46	3.00
Chinese Taipei	29.9	58.2	70.9	1.46	2.61	3.02
South-East Asia	99.2	190.1	328.8	0.26	0.42	0.60
Brunei Darussalam	1.5	1.8	2.3	5.81	5.53	5.40
Indonesia	37.3	73.0	124.8	0.21	0.35	0.49
Malaysia	16.2	33.0	55.1	0.89	1.41	1.84
The Philippines	9.8	17.5	24.9	0.16	0.22	0.25
Singapore	8.0	11.6	12.4	2.61	2.88	2.26
Thailand	21.8	41.1	69.3	0.38	0.66	1.02
Viet Nam	4.7	12.0	40.0	0.07	0.15	0.44
Oceania	75.5	95.6	110.4	3.08	3.37	3.11
Australia	68.6	86.9	100.2	4.02	4.53	4.27
New Zealand	6.2	7.9	8.6	1.87	2.06	1.90
Papua New Guinea	.6	.8	1.6	0.15	0.16	0.22
Americas	1 640.0	1 926.9	1 863.8	4.12	4.22	3.53
Canada	117.1	144.7	145.1	4.21	4.70	4.08
Mexico	70.8	93.4	117.5	0.83	0.91	0.94
United States	1 438.7	1 668.1	1 566.9	5.76	5.91	4.91
Chile	8.1	13.4	20.7	0.61	0.89	1.17
Peru	5.3	7.4	13.6	0.24	0.28	0.44
Russia	610.6	403.6	399.5	4.12	2.75	2.78

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 2010 USD			kt-C / Billions of 2010 PPP			t-C / toe			
1990	2000	2014	1990	2000	2014	1990	2000	2014	
172.2	147.6	139.3	151.0	125.5	104.1	0.73	0.72	0.73	
161.3	157.5	189.0	155.4	129.1	123.2	0.78	0.77	0.81	
705.6	376.6	297.0	344.8	184.1	145.2	0.89	0.88	0.84	PRC
85.8	55.5	44.1	59.2	38.4	30.5	0.84	0.56	0.79	HKC
63.4	62.3	57.5	80.6	79.3	73.2	0.66	0.62	0.74	JPN
165.5	162.7	122.5	120.3	118.3	89.1	0.67	0.61	0.56	ROK
184.8	188.3	135.5	94.8	96.6	69.5	0.66	0.74	0.64	CT
137.0	163.1	141.2	54.7	65.7	56.8	0.66	0.67	0.65	
172.3	169.1	181.9	76.9	75.5	81.2	0.69	0.87	0.58	BD
124.4	161.0	132.5	46.9	60.7	49.9	0.70	0.72	0.70	INA
197.9	203.0	175.4	86.8	89.1	76.9	0.78	0.68	0.70	MAS
103.7	139.4	99.3	40.3	54.1	38.6	0.35	0.45	0.51	RP
117.7	86.4	43.9	77.7	57.0	29.0	0.69	0.62	0.43	SIN
153.7	188.8	181.6	59.0	72.5	69.7	0.78	0.68	0.61	THA
158.2	196.6	276.0	48.0	59.7	83.7	0.86	0.81	0.76	VN
104.1	95.4	73.6	138.1	126.6	97.5	0.75	0.76	0.74	
107.9	98.6	75.6	148.7	135.9	104.2	0.79	0.80	0.80	AUS
73.6	69.4	52.8	79.3	74.8	56.9	0.49	0.47	0.42	NZ
144.3	127.5	122.5	96.5	85.2	81.9	0.73	0.74	0.66	PNG
151.3	127.0	95.3	146.9	123.0	91.8	0.72	0.71	0.68	
115.4	107.7	81.8	136.7	127.6	96.9	0.55	0.57	0.52	CDA
114.3	106.0	99.7	69.4	64.3	60.5	0.57	0.62	0.63	MEX
158.7	131.2	97.0	158.7	131.2	97.0	0.75	0.73	0.71	USA
100.7	90.0	80.7	73.3	65.5	58.7	0.57	0.53	0.58	CHL
90.7	85.2	74.8	47.4	44.5	39.1	0.54	0.60	0.60	PE
431.8	424.2	238.0	224.9	220.9	123.9	0.69	0.65	0.56	RUS

---

## Glossary

---

### General note

The definition for some items are different from the APEC Energy Statistics publication in order to match with the aggregated product categories. In the energy balance, the definition of all items are the same as those in the APEC Energy Statistics publication.

### Energies

#### Coal

Includes coal, i.e. solid fossil fuel consisting of carbonized vegetal matter, and coal products derived directly or indirectly from various classes of coal by carbonization or pyrolysis processes, by the aggregation of finely divided coal or by chemical reactions with oxidizing agents, including water.

#### Oil

Liquid hydrocarbons of fossil origins comprising (i) crude oil; (ii) liquids extracted from natural gas (NGL); (iii) fully or partly processed products from the refining of crude oil, and (iv) functionally similar liquid hydrocarbons and organic chemicals from vegetal or animal origins.

#### Petroleum Products

Products obtained from crude oil, non-conventional oils or gases from oil and gas fields. They may be produced through refining of conventional crude and non-conventional oils or during the separation of natural gas from gases extracted from oil or gas fields.

#### Mogas (Motor Gasoline)

A mixture of some aromatics (e.g., benzene and toluene) and aliphatic hydrocarbons in the C<sub>5</sub> to C<sub>12</sub> range. The distillation range is 25 °C to 220 °C.

#### Naphtha

Light or medium oils distilling between 30 °C and 210 °C which do not meet the specification for motor gasoline.

#### Jet Fuel

Jet fuel comprises both gasoline and kerosene type jet fuels meeting specifications for use in aviation turbine power units.

Gasoline type: Light hydrocarbon for use in aviation turbine power units, distilling between 100 °C and 250 °C. They are obtained by blending kerosene and gasoline or naphtha in such a way that the aromatic content does not exceed 25 per cent in volume, and the vapour pressure is between 13.7 kPa and 20.6 kPa.

Kerosene type: A blend of kerosenes suited to flight conditions with particular specifications, such as freezing points.

#### Kerosene

Mixtures of hydrocarbons in the range  $C_9$  to  $C_{16}$  and distilling over the temperature interval 145 °C to 300 °C, but not usually above 250 °C and with a flash point 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 re-distillation of the residual from atmospheric distillation.

#### Fuel Oil

Comprises residual fuel oil and heavy fuel oil. Residual fuel oils have a distillation range of 350 °C to 650 °C and a kinematic viscosity in the range 6 to 55 centistokes (cSt) at 100 °C. Their flash point is always above 60 °C and their specific gravity is above 0.95. Heavy fuel oil is a general term describing a blended product based on the residues from various refinery processes.

#### LPG

LPG refers to liquefied propane ( $C_3H_8$ ) and butane ( $C_4H_{10}$ ) or mixtures of both. Commercial grades are usually mixtures of the gases with small amounts of propylene, butylene, isobutene and isobutylene stored under pressure in containers.

#### Others

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

#### Gas

A mixture of gaseous hydrocarbons, primarily methane, but generally also including ethane, propane and higher hydrocarbons in much smaller amounts and some non-combustible gases such as nitrogen and carbon dioxide.

The separation process produces natural gas by removing or reducing the hydrocarbons other than methane to levels which are acceptable in the marketable gas.

Natural gas also includes methane recovered from coal mines (colliery gas) or from coal seams and shale formation. When distributed it may contain methane from anaerobic fermentation or the methanation of biomass.

Natural gas may be liquefied (LNG) by reducing its temperature in order to simplify storage and transportation when production sites are remote from

centres of consumption and pipeline transportation is not economically practicable.

#### Hydro

The primary equivalent of electricity generated from hydroelectric power plants.

#### Nuclear

The primary equivalent of electricity and heat generated from nuclear fuels.

#### Others

Others is the sum of geothermal power, wind, tide, photovoltaic power, biomass, etc. However, for Indonesia; Chinese Taipei; Thailand and Viet Nam, non-commercial biomass was not included to keep historical consistency as there are no data on this energy source before 2004.

### Sectors

#### Indigenous Production

Quantities of fuels extracted within the economy.

#### Net Imports

Defined as imports minus exports.

#### Total Primary Energy Supply (TPES)

Calculated from indigenous production plus imports minus exports minus international marine and aviation bunkers plus or minus stock change.

#### Refining

The transformation of crude oil, NGL and condensate to petroleum products.

#### Power Generation

Production of electricity 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

Total consumption of industry, transport, residential, commercial and other sectors.

#### Industry

These sector include the following branches:

- 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

The transportation sector is disaggregated into the following sub-sectors:

- Domestic Air transport
- Road transport
- Railways
- Internal navigation
- Pipeline transport
- Other transport

#### Residential and Commercial

Residential shows all consumption by households

Commercial shows consumption of the commercial and public sectors.

#### Others

Agriculture, fishing and non-energy use.





# APEC

ENERGY HANDBOOK 2014

ENERGY WORKING GROUP  
NOVEMBER 2016

COORDINATING AGENCY:  
ENERGY STATISTICS AND TRAINING OFFICE  
ASIA PACIFIC ENERGY RESEARCH CENTRE

Prepared by  
Energy Statistics and Training Office  
Asia Pacific Energy Research Centre  
Inui Bldg. Kachidoki, 1-13-1 Kachidoki  
Chuo-ku, Tokyo, 104-0054, Japan  
Phone: (81) 3 5144 8551 Facsimile: (81) 3 5144 8555  
E-mail: [esto@aperc.iej.or.jp](mailto:esto@aperc.iej.or.jp)  
Website: [www.iej.or.jp/egeda](http://www.iej.or.jp/egeda)

For Asia Pacific Economic Cooperation Secretariat  
35 Heng Mui Keng Terrace  
Singapore 119616  
Phone: (65) 6891 9600 Facsimile: (65) 6891 9690  
E-mail: [info@apec.org](mailto:info@apec.org)  
Website: [www.apec.org](http://www.apec.org)



Asia-Pacific  
Economic Cooperation