



# APEC ENERGY STATISTICS 2012

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COORDINATING AGENCY:  
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## PREFACE

The APEC Energy Statistics 2012 consists of the following chapters:

1. Explanation of the APEC Energy Statistics
2. Overview of the APEC Energy Situation
3. Member Economy Tables

The statistics cover the 21 APEC member economies, i.e. Australia; Brunei Darussalam; Canada; Chile; People's Republic of China; Hong Kong, China; Indonesia; Japan; Republic of Korea; Malaysia; Mexico; New Zealand; Papua New Guinea; Peru; the Republic of the Philippines; the Russian Federation; Singapore; Chinese Taipei; Thailand; the United States of America and Viet Nam.

Chapter 1 describes the methodology for collecting and standardizing the energy data and for producing the secondary data such as the energy balances and other tables. The preparation of socio-economic data is also explained.

Chapter 2 provides an analysis of energy demand and supply in the APEC region and contains figures and tables showing trends of energy demand and supply.

Chapter 3 consists of annual and quarterly tables of each member economy. The annual tables contain Energy Balance Tables for 2012 and 2011 and Energy Prices for 2012. The annual tables also include Major Energy Indicators such as primary energy supply, final energy consumption, demand and supply by energy sources and electricity as well as Major Economic Indicators such as population, GDP, balance of payments, foreign exchange rate, purchasing power parity, price indices and so on. These tables cover the data from 1990 to 2012. The objective is to report the most recently updated data.

APEC Energy Statistics 2012 is 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 is prepared in close cooperation with member economies.

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# **1 Background Information on the APEC Energy Statistics**

The APEC Energy Statistics consist of energy data submitted by each member economy as well as socio-economic data collected by EDMC (The Energy Data and Modelling Center), the Coordinating Agency (hereinafter referred to as C.A.) for this APEC activity. The energy balance tables, which give a detailed description of all energy products and flows, and other tables (primary energy supply, final energy consumption, etc.) included in the statistics, are secondary data compiled by EDMC.

## 1.1 Energy Data

### 1.1.1 Original Data

The APEC member economies regularly submit energy demand and supply data to EDMC. These data are defined as “original data”. Details for collection of the data are given below:

#### a. Collection Format for Original Energy Data

Most of the items found in the Energy Statistics are based on data submitted by the APEC member economies using a set of questionnaires for Oil, Coal, Natural Gas, Electricity and Heat, as well as New and Renewable Energy (NRE) that was developed in 2005 for the collection of annual data for the year 2004. These questionnaires are simplified forms of the annual energy questionnaires of the International Energy Agency (IEA) in view of the harmonization efforts of the C.A. with the IEA. Table 1-1a and 1-1b show the energy product and flows that are to be reported in the questionnaires. The definition of energy products and flows can be found in the Appendices.

Using the reporting format or the APEC Annual Energy Questionnaires, the members submitted the following information:

- Supply and demand information for specific types of energy products
- Power generating capacity by type of power plants
- Supply and demand information for NRE

The data are reported in the following required units:

Coal, Solid Coal Products	1,000 Metric Tons
Gaseous Coal Products	$10^{10}$ kcal (gross)
Oil and Oil Products	1,000 Metric Tons
Natural Gas	Million Cubic Meters
LNG	1,000 Metric Tons
Solid and Liquid Bio-fuels	1,000 Metric Tons
Biogas	$10^{10}$ kcal (gross)
Electricity (including renewable)	GWh
Heat	$10^{10}$ kcal (gross)

With regard to calorific values (both gross and net), the required units are the following:

Coal, Oil, NRE	kcal/kg
Natural Gas	kcal/cubic meter

Power Generating Capacity data are reported in MW.

For OECD member countries that also submit annual energy supply and demand data to IEA, C.A. accepts data submission using the IEA format. The C.A. also downloads the revised questionnaires from IEA's Energy Data Center. The C.A. developed computer programs to transfer data from the IEA format to APEC format and to generate energy balance tables from the APEC questionnaires. This is to reduce the reporting burden of these economies to IEA, APEC and other international energy organizations.

Table 1-1a: Energy Products in the APEC Energy Database

<b>Coal</b>	<b>Crude Oil &amp; NGL</b>	<b>Hydro</b>
Coking Coal	Crude Oil	<b>Nuclear</b>
Other bituminous coal	Natural Gas Liquids	<b>New and Renewable Energy</b>
Sub-bituminous Coal	Refinery Feedstocks	Geothermal
Anthracite	Additives / Oxygenates	Photovoltaic
Lignite	Other Hydrocarbons	Tide, Wave and Ocean
Peat		Wind
<b>Coal Products</b>	<b>Petroleum Products</b>	Geothermal Heat
Coke Oven Coke	Gasoline	Solar Heat
Coke Oven Gas	Motor Gasoline	Fuel Wood and Woodwaste
Blast furnace Gas	Aviation Gasoline	Bagasse
Oxygen Steel furnace Gas	Naphtha	Charcoal
Patent Fuel	Jet Fuel	Other Biomass
Coal Tar	Gasoline Type Jet Fuel	Biogas
BKB/PB	Kerosene Type Jet Fuel	Industrial Waste
Gas Works Gas	Kerosene	Municipal Solid Waste
<b>Crude Oil &amp; NGL</b>	Gas/Diesel Oil	Liquid Bio-fuels
Crude Oil	Fuel Oil	<b>Electricity</b>
Natural Gas Liquids	LPG	<b>Heat</b>
Refinery Feedstocks	Refinery Gas (not liq.)	
Additives / Oxygenates	Ethane	
Other Hydrocarbons	White Spirit SBP	
<b>Gas</b>	Lubricants	
Natural Gas	Bitumen	
LNG	Paraffin Waxes	
	Petroleum Coke	
	Other Products	

b. Collection Schedule and Actual Dates of Submission

The C.A. set the deadline for submission to end of January 2014. In principle, all twenty-one APEC members are expected to submit annual data on the aforementioned deadline. Philippines and Thailand were able to submit the 5 energy questionnaires by the deadline. Eight non-OECD APEC economies submitted after January 2014. Papua New Guinea did not submit the questionnaires.

For Papua New Guinea, the C.A. estimated their energy data using various references such as the JODI Oil data,

the annual report of Oil Search Limited, an oil company based in the economy and information from the economy's privately-operated geothermal power plant. No information on NRE (except for hydro) is available in the economy.

Peru submitted historical energy balances from 2000 to 2012 along with accomplished questionnaires for 2012 in July 2014 when the C.A. visited the economy. The C.A. produced the energy balances for the years 2011 and 2012 and has started processing the data for the previous years. The C.A. is also in the process of revising the entire annual data set of Peru from 1980 using the

submitted data and data from the published energy balances of the economy.

Singapore submitted the questionnaires but the data lack the level of details that the energy balance table requires.

Therefore, most of the data were estimated by the C.A.

Viet Nam their energy balances for the years 2010 to 2012. The C.A. processed the data into APEC energy balance tables.

Table 1-1b: Energy Flows in the APEC Energy Database

<b>Indigenous Production</b>	<b>Total Transformation Sector</b>	<b>Total Final Energy Consumptions</b>
<b>Imports</b>	<b>Main Activity Producer</b>	<b>Industry Sector</b>
<b>Exports</b>	Electricity Plants	Iron and Steel
<b>International Marine Bunkers</b>	CHP Plants	Chemical (incl. Petro-Chemical)
<b>International Aviation Bunkers</b>	Heat Plants	Non Ferrous Metals
<b>Stock Changes</b>	<b>Autoproducers</b>	Non Metallic Mineral Products
<b>Total Primary Energy Supply</b>	Electricity Plants	Transportation Equipment
<b>Transfers</b>	CHP Plants	Machinery
Recycled Products	Heat Plants	Mining and Quarrying
Inter-product Transfers	<b>Gas Processing</b>	Food, Beverages and Tobacco
Products Transferred	Gas Works	Pulp, Paper and Printing
Gas Separation	Liquefaction	Wood and Wood Products
	Re-gasification	Construction
	Natural Gas Blending Plants	Textiles and Leather
	Gas to Liquid	Non-specified Industry
	<b>Refineries</b>	<b>Transport Sector</b>
	<b>Coal Transformation</b>	Domestic Air Transport
	Coke Ovens	Road
	Blast Furnaces	Rail
	Patent Fuel Plants	Inland Waterways
	BKB/PB Plants	Pipeline Transport
	Liquefaction (Coal to Oil)	Non-specified Transport
	<b>Petrochemical Industry</b>	<b>Other Sector</b>
	<b>Biofuel Processing</b>	Commerce and Public Services
	<b>Charcoal Processing</b>	Residential
	<b>Non-specified Transformation</b>	Agriculture
	<b>Losses &amp; Own Use</b>	Fishing
	<b>Own Use</b>	Non-specified Others
	<b>Distribution Losses</b>	<b>of which Non-Energy Use</b>
	<b>Discrepancy</b>	Transformation Sector
		Industry Sector
		Transport Sector
		Other Sector

### c. Collection Status

As of June 30, 2014, 16 APEC economies have submitted data to the C.A., one economy. Hong Kong, China, Indonesia, Peru submitted the data in September 2014 while Viet Nam provided the C.A. with their energy balances from 2010 to 2012. Papua New Guinea is still not able to submit the annual energy questionnaires. However, the C.A. made use of the crude oil production, exports as well as refinery input and output data submitted by the economy as part of its monthly Joint Organisations Data Initiative (JODI) Oil submission.

The C.A. took measures to be able to generate energy balance tables for Papua New Guinea and Singapore. For the former, the C.A. estimated the final energy consumption, electricity generation and inputs as well as imports of petroleum products. For Singapore, the C.A. used the questionnaires submitted by the economy. The questionnaires submitted by the economy contain mostly trade data and has little or aggregated information on final consumption. The C.A. will highly appreciate if Singapore does the estimation of the missing data in the future.

### d. Use of the Internet

The advances in internet technology had enabled the submission of all energy data as email attachment. Correspondence for the improvement of data consistency and accuracy had also been carried out mostly through the internet.

## 1.2 Standardization

The APEC reporting format requires the use of certain units for reporting energy data. In this regard, the level of

standardization has been improved by at least one notch. For example, all oil data are now reported in 1,000 metric tons unit. Before the 2004 data, each economy uses its own units such as barrels, kiloliters, cubic meters, etc. The C.A. however, does not standardize the conversion factor from physical to thermal units in view of the peculiarities in the thermal quantity of each energy product from the different economies. In this regard, the C.A. makes use of the calorific value data reported by each economy as opposed to using typical conversion factors.

### 1.2.1 Conversion Factors for Fossil Energy from Physical to Thermal Units

Between the two calorific values, namely gross and net calorific values, the APEC Standard adopted the net calorific value at the Third Experts Meeting (Singapore) to facilitate comparisons with international energy statistics such those of the IEA and UNSD. Therefore, gross calorific values used by some members must be converted to net calorific values. If only the gross calorific values are reported, the C.A. converts them to net calorific values by:

Coal / Oil	multiply the value by 95%
Gas	multiply the value by 90%

### 1.2.2 Conversion Factors for Primary Electricity

Table 1-2 shows the efficiency applied to convert primary electricity, i.e. power generated by processes which excludes fossil fuel, such as hydro, nuclear, geothermal and other power generation to primary energy units. To allow comparisons of primary energy supplies, in the light of differences in conversion coefficients, standardization is required. APEC adopted the following conversion coefficients for compatibility

with IEA and UN statistics.

**Table 1-2: Efficiency of Primary Electricity Generation**

Primary Electricity	Efficiency
Hydro Power	100%
Nuclear Power	33%
Geothermal Power*	10%
Other New Power	100%

\* Excluding New Zealand and United States. These economies can provide the primary energy equivalent of geothermal electricity outputs.

The original energy data contained in these statistics have been processed using the adjustments mentioned above.

### 1.3 Secondary Data

Using the original data submitted by each member economy, C.A. prepares the following tables through the standardization process described in 1.2.

- (1) Energy Balance Table
- (2) Primary Energy Supply Table
- (3) Final Energy Consumption Table
- (4) Supply and Demand by Energy Source Table
- (5) Electricity Table
- (6) Stock Change Table

The Energy Balance Tables give a detailed description of energy sources and their flows.

APEC Energy Statistics contain the six tables mentioned above. Tables (2) through (6) are collectively referred to as “other tables”, and are compiled from data obtained from the original data tables after adjustment and the energy balance tables. Tables 2 through 6 allow comparisons among member economies.

#### 1.3.1 Energy Balance Table

The energy balance table is, in principle, the same as that of the IEA but with some differences. These are as follows:

- APEC statistics are basically based on official data provided by national government agencies of each member economy, and thus, agencies exclude any data not reported to the government. It is assumed that the IEA estimates these quantities.
- For this reason, some data for private-power generations are missing in some member economies.
- APEC and the IEA use different heat conversion methods.
- The reporting date differs in APEC and IEA surveys.

The APEC energy balance table consists of two tables, quoted in ktoe ( $10^{10}$  kilocalories) and in petajoules (PJ equivalent to  $10^{15}$  joules).

#### 1.3.2 Other Tables

Other tables, i.e., primary energy supply, final energy consumption, supply and demand by energy source, electricity and stock change, are all designed to allow comparisons among member economies.

The primary energy supply table shows items that constitute the primary energy supply, namely, indigenous production, imports, exports, stock change, and international marine and aviation bunkers in terms of calorific values (ktoe and PJ), for each of the four categories of coal, petroleum, gas, and primary electricity (hydro, nuclear, geothermal power, etc.).

The final consumption table illustrates the consumption of coal (including coal products), petroleum, gas, electricity and others for each final consumption sector (agriculture, residential, commercial, industry and transport).

The supply and demand table for each energy source emphasizes coal, petroleum and gas, and shows, at a balance, how the primary supply volume is being consumed in the transformation and final energy consumption sectors.

The electricity table illustrates the power generation and fossil fuel input for each of the five categories of thermal, hydro, nuclear, geothermal and other sources of power generation.

The stock change table shows the inventory of fossil fuels owned by each member economy, in units of calorific value (ktoe and PJ), at the beginning and end of the period as well as the stock change. Since the conventional approach is to report stock level only in terms of its change, many members omit the stock level at the beginning and end of the term.

## 1.4 Notes on Member Economies

### 1.4.1 General Notes

Most of the member economies' annual data are tallied by calendar year (1 January – 31 December) except for Australia; Australia's energy statistics are accounted by fiscal year (1 July-30 June).

In view of harmonization efforts with the IEA, the C.A. accepts submission from OECD members using the IEA format. Likewise, to reduce the burden on member economies' statisticians, the C.A. decided that to leave to IEA the data negotiation with the APEC OECD member economies and just used the processed and updated data from IEA.

### 1.4.2 Specific Notes

#### a. Japan

Energy data after 2000 are not official data prepared by Japanese Government. C.A. used data on energy balance table produced by the Institute of Energy Economics, Japan to maintain continuity of data from before 2000.

#### b. Papua New Guinea

C.A. estimated energy balance tables from 2005 to 2012 for Papua New Guinea from the crude oil and natural gas production, refinery intake and output data, crude oil exports and GDP data obtained from Papua New Guinea. Data on geothermal electricity production were also obtained via online research.

#### c. Singapore

Singapore cannot submit the data on crude oil inputs and petroleum products output of the refinery sector as well as detailed fuel inputs for electricity generation. Furthermore there are no data in the final energy consumption sectors of the oil questionnaire.

C.A. estimated most of the data in the energy balance tables of Singapore from 1990 to 2012.

C.A. estimated values in petroleum refinery using import volumes of crude oil and export volumes of petroleum products (assuming the stock change and the discrepancy are 0).

## 1.5 Socioeconomic Data

At the moment, the socioeconomic data for each member economy shown in the APEC Energy Statistics are not reported by the members, but, instead, are prepared by

C.A. The data are derived from the “World Development Indicators” (World Bank) and “The International Financial Statistics Yearbook” (IMF). The data on Chinese Taipei not found in these statistics, are derived from the “Chinese Taipei Statistical Data Book”. This book is regularly provided to the C.A. through the goodwill of this member. The items the C.A. takes from these publication are:

- Population
- GDP and its components
- Index of Industrial Production
- External Trade (dollar base)
- Balance of Payment (dollar base)
- Exchange Rate
- Prices (CPI, etc.)

In addition to reporting the GDP in the member economy’s currency, C.A. provides estimates in real and nominal dollars as well as real PPP (Purchasing Power Parity) values.

## 1.6 APEC Energy Database

C.A. has established the APEC Energy Database, which contains all data on APEC Energy Statistics. The web address of the database is: <http://www.ieej.or.jp/egeda/>.

## 2 Overview of the APEC Energy Situation

## 2.1 Overall Notes

Chapter 2 summarizes the energy supply and demand in the APEC region using the energy balance tables of APEC member economies stored in the APEC Energy Database. Energy categories used in this chapter are defined as follows:

a. Coal:

Coking coal, anthracite, other bituminous coal, sub-bituminous coal, lignite and peat, patent fuel, coke, coal tar, BKB/PB, gas works gas and oxygen steel furnace gas

b. Oil:

Crude oil, NGL, refinery feedstocks, additives/oxygenates, and other hydrocarbons, refinery gas, ethane, LPG, Naphtha, motor gasoline, aviation gasoline, gasoline type jet fuel, kerosene type jet fuel, other kerosene, gas/diesel oil, fuel oil, white spirit SBP, lubricants, bitumen, paraffin waxes, petroleum coke and other products

c. Gas:

Natural gas and LNG

d. Hydro, Nuclear, etc.:

Electricity generated from non-thermal resources such as hydro, nuclear, geothermal, solar and wind

e. Others:

Incineration and commercial renewable energy

Regional groupings of APEC member economies are as follows:

a. East Asia and Russia:

China; Hong Kong, China; Japan; Korea, Russia and Chinese Taipei

b. Southeast Asia

Brunei Darussalam, Indonesia, Malaysia, Philippines, Singapore, Thailand and Viet Nam

c. Oceania:

Australia, New Zealand and Papua New Guinea

d. North America:

Canada and the United States of America

e. Latin America:

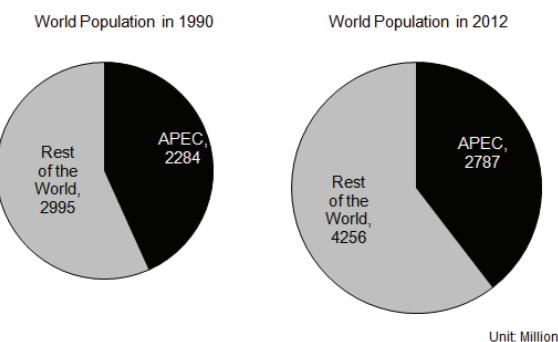
Chile, Mexico and Peru

From 2004, APEC collected the member economies' annual energy data using a new format which resulted to reporting of non-commercial biomass supply and consumption which were not reported until 2003 for some economies. To analyze the historical trend, Non-commercial biomass data of Indonesia, Peru, Thailand and Viet Nam which were not reported before 2004 were excluded in this analysis.

## 2.2 APEC and the World

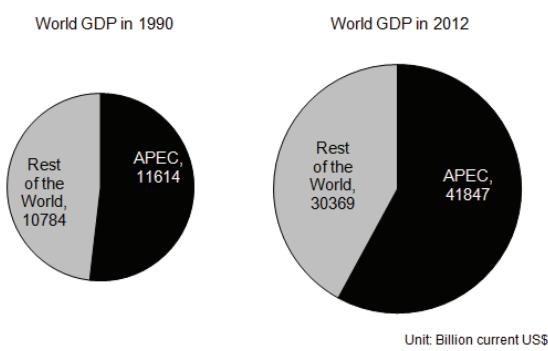
APEC population grew at an average annual rate of 0.9% from 1990 to 2.79 billion in 2012. On the other hand, that of the rest of the world grew by 1.6% per year from 3.00 billion to 4.26 billion during the same period. In view of this, APEC's share of the total population decreased to 39.6% in 2012 from 43.3% in 1990.

APEC's share of the world GDP (current US\$) increased from 51.9% in 1990 to 57.9% in 2012.



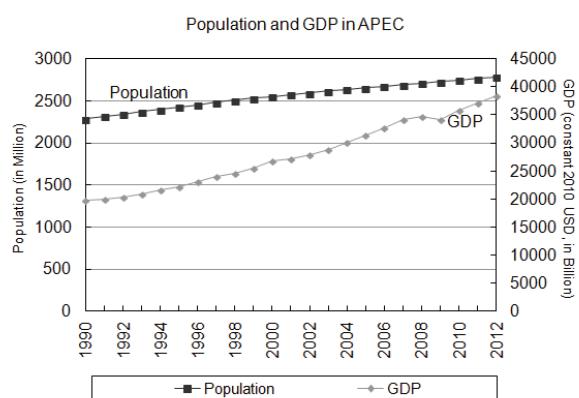
Source: World Bank

Population in 1990 and 2012

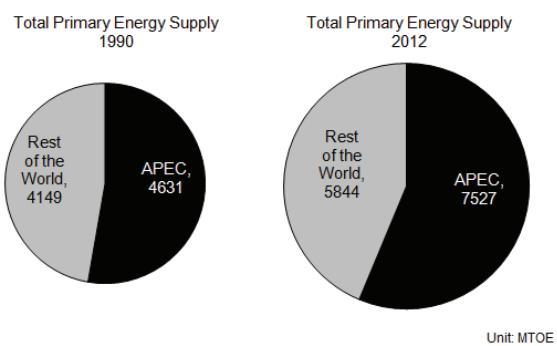


Source: IMF

GDP in 1990 and 2012



In 1990, APEC's share in the world total primary energy supply was 52.7% (4,631 Mtoe). This increased to 56.3% (7,527 Mtoe) in 2012 and could be attributed to the faster economic growth in the region relative to the rest of the world.



Source: APEC, IEA

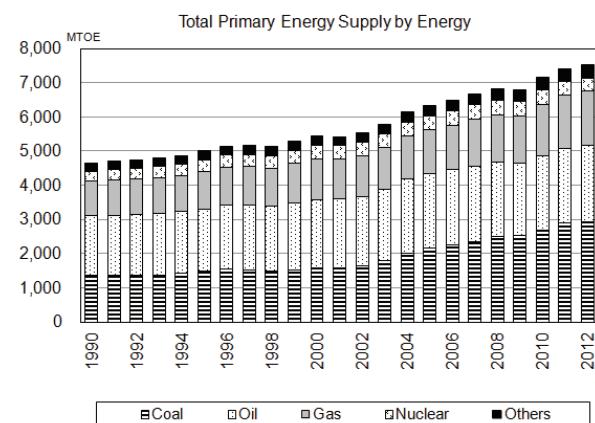
Total Primary Energy Supply in 1990 and 2012

## 2.3 Energy Supply in APEC

### 2.3.1 Total Primary Energy Supply

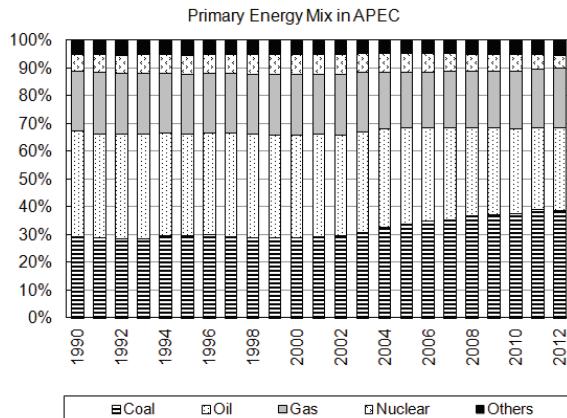
The level of primary energy supply in 2012 of 7,535 Mtoe increased by 1.7% from the 2011 level of 7,410 Mtoe. In the period 1990 to 2012, primary energy supply had an average growth rate of 2.2% per annum.

During the same period, coal supply rose at an average rate of 3.5% per annum to reach 2,923 Mtoe. Oil supply rose at an average rate of 1.1% per annum to reach 2,233 Mtoe, increased by 1.8% from 2011. Gas supply increased by 2.2% per annum to reach 1,614 Mtoe. The supply of nuclear grew by 1.1% per annum to reach 361 Mtoe. Other energy, which includes hydro and other renewable energy, grew by 2.3% per annum although their total remained small at 395 Mtoe.



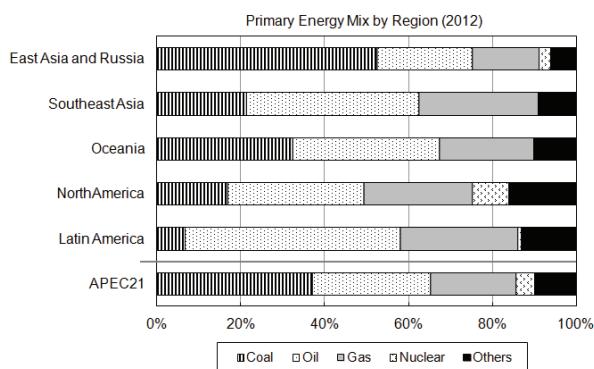
#### - Primary Energy Mix

The APEC primary energy mix has changed over time from 1990 to 2012. The share of coal, which was 28.8% in 1990, increased to 38.8% in 2012. In contrast, the share of oil decreased to 29.6% in 2012 from 37.4% in 1990. The share of nuclear energy is 4.8% in 2012, which is the smaller than the share in 1990 (6.4%).



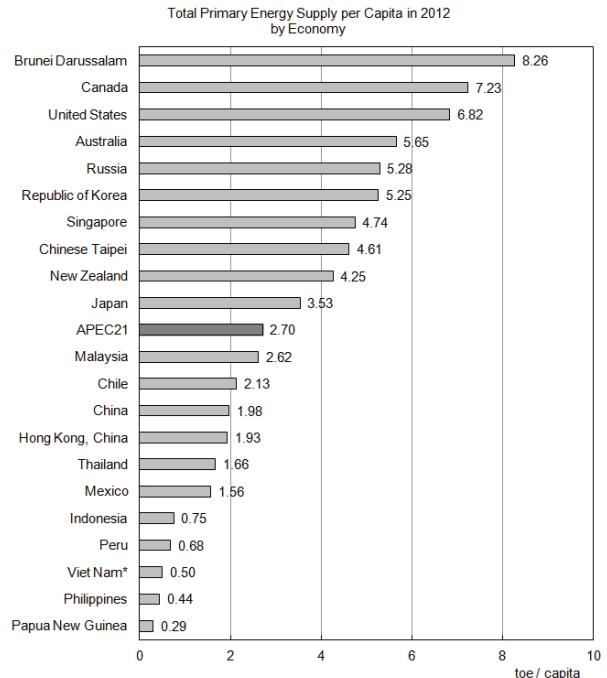
#### - Primary Energy Mix by region

In East Asia and Russia, the share of coal was 54.3%, higher than other regions. On the other hand, oil was the main energy source in Southeast Asia (41.3%) and Latin America (52.0%). The share of nuclear energy in North America was higher than other regions, at 9.8% in 2012.



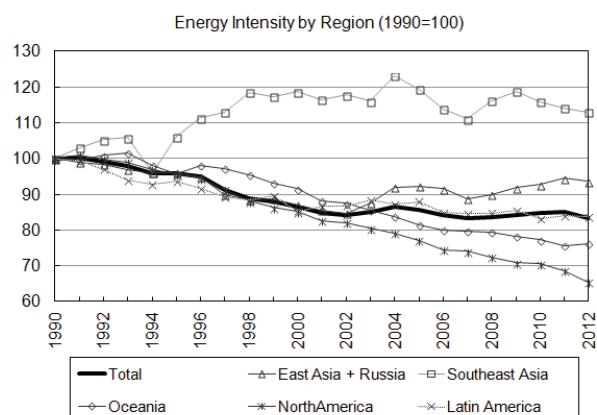
#### - Total Primary Energy Supply per Capita

The average primary energy supply per capita in APEC region was 2.70 toe per capita in 2012. OECD member economies have higher than average values. In contrast, several Southeast Asian and Latin American economies have lower values.



#### - Energy Intensity

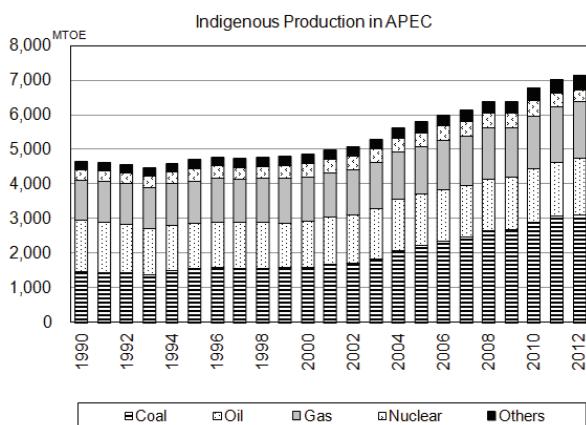
The energy intensity (*Total Primary Energy Supply / GDP in constant 2010 USD*) was 196.2 toe/mill USD in 2012, a 0.8% decrease per annum from 1990. From 1990 to 2012, energy intensity increased in East Asia and Russia, and Southeast Asia, but has decreased in rest of the regions.



#### 2.3.2 Indigenous Production

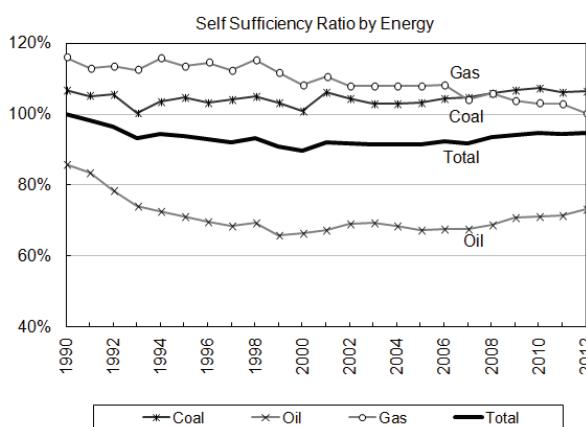
Indigenous energy production in 2012 of 7,129 Mtoe increased by 1.7% from the 2011 level of 7,007 Mtoe. In the period of 1990 to 2012, indigenous production had an

average growth rate of 2.0% per annum.



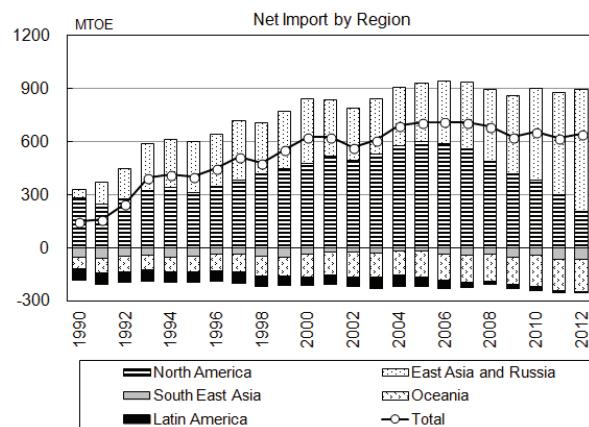
### - Self Sufficiency

The self sufficiency ratio (*Indigenous Production / Total Primary Energy Supply*) of the APEC region was 100.1% in 1990 but has decreased to 94.6% in 2012. Self sufficiency ratios in coal and gas are over 100%. Self sufficiency ratio in oil is only 73.2% in 2012 decreasing from 85.8% in 1990.



### 2.3.3 Net Import by Region

Net import (*import – export*) in the APEC region was 647 Mtoe in 2012, increasing by 6.9% per annum from 1990. In North American region as well as in East Asia and Russia region, net imports were positive. In Southeast Asia, Oceania and Latin America, net import was negative.

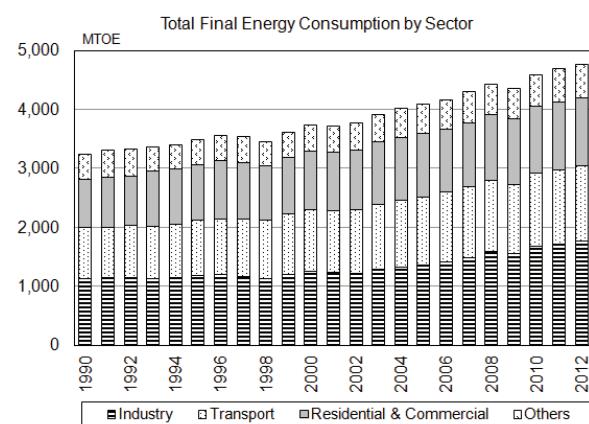


## 2.4 Energy Consumption in APEC

### 2.4.1 Total Final Energy Consumption by Sector

The level of final energy consumption in 2012 of 4,758 Mtoe increased by 1.5% from the 2011 level of 4,689 Mtoe. The growth rate was 1.8% per annum from 3,237 Mtoe in 1990.

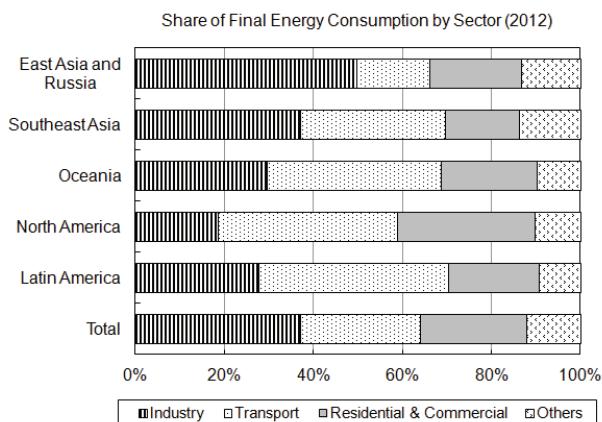
Consumption in industry sector of 1,763 Mtoe was the largest for all sectors in 2012 with a share of 37.0% to the total final consumption. The transport sector share was 27.0% while the residential/commercial sector share was 24.0%.



The final energy consumption of the residential/commercial sectors decreased by 0.8%, from 1,152 Mtoe in 2011 to 1,143 Mtoe in 2012. The transport sector consumption also increased by 2.5% from 1,252 Mtoe in 2011 to 1,283 Mtoe in 2012. Industrial sector

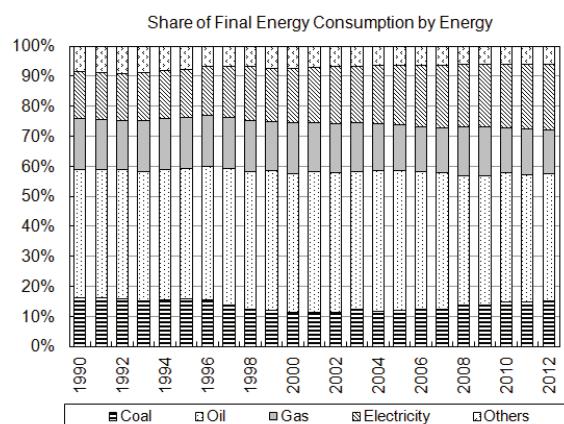
consumption increased by 2.0% per annum from 1,132 Mtoe in 1990 to 1,763 Mtoe in 2012.

In East Asia and Russia region, consumption in industry sector of 1,268 Mtoe was the largest for all sectors in 2012 with a share of 49.7% to the total final consumption. In North American region, industry share was only 18.6% while the transport sector took the highest share of 40.2% in 2012.



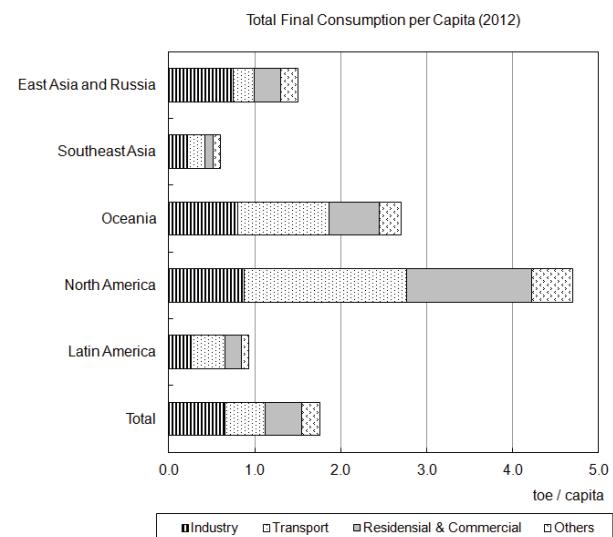
#### 2.4.2 Final Energy Consumption by Energy

In 2012, oil share in the final energy consumption was 42.2% (2,007 Mtoe). Electricity share was 21.8% (1,038 Mtoe) increasing from 15.5% (502 Mtoe) in 1990.



#### 2.4.3 Final Consumption per Capita

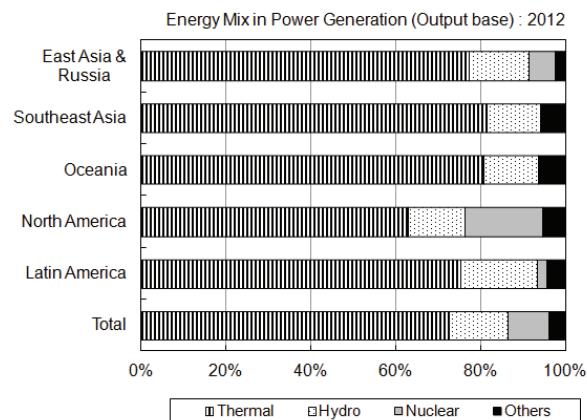
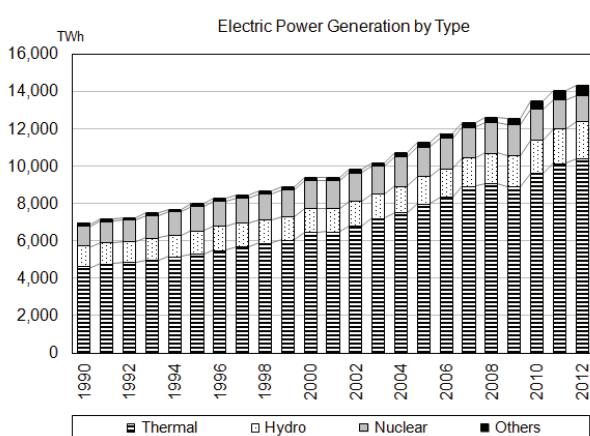
Total final consumption per capita was 1.76 toe in 2012. In Southeast Asia, final energy consumption per capita is 0.60 toe per capita, the lowest in APEC. In Oceania and North American, final energy consumption per capita were higher; 2.71 toe per capita in Oceania and 4.70 toe per capita in North America.



#### 2.5 Power Generation

##### 2.5.1 Power Generation Output

Power generation increased by 2.1% from 14,023 TWh in 2011 to 14,339 TWh in 2012. From 1990 to 2012, power generation grew at an average rate of 3.3% per annum (from 6,946 TWh). Thermal power generation increased by 2.7% from 10,121 TWh in 2011 to 10,390 TWh in 2012. The share of thermal power generation increased to 72.5% of the total in 2012 from 66.6% in 1990. Nuclear power generation decreased by 10.1%, from 1,544 TWh in 2011 to 1,388 TWh in 2012. Hydropower generation rose by 7.2% from 1,864 TWh in 2011 to 1,999 TWh in 2012.



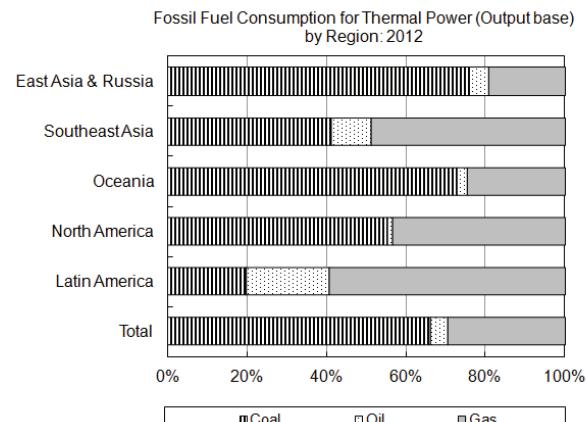
### - Power Generation Mix by Region

In APEC region, 72.5% are from thermal generation (coal, oil and natural gas), 13.9% by hydro and 9.7% by nuclear energy in 2012.

In East Asia and Russia region, the share of thermal energy is 77.1%, while that of nuclear energy was 6.1%. In Southeast Asia and Oceania, most of electricity was generated from thermal sources and there are no nuclear power generation. In North America, 18.3% are generated by nuclear energy. In Latin America, the share of hydro of 18.2% was higher than the APEC average of 13.9% in 2012.

### 2.5.2 Fossil Fuel Consumption for Thermal Power

In 2012, 66.1% of electricity was generated by coal, 4.5% by oil and 29.4% by natural gas. In Southeast Asia and Latin America, gas was the largest energy source for thermal power generation.



APEC Region	2012												Unit: Mtoe
	1 Coal	2 Coal Products	3 Crude Oil, NGL and Condensate	4 Petroleum Products	5 Gas	6 Hydro	7 Nuclear	8 Geothermal, Solar, etc.	9 Others	10 Electricity	11 Heat	12 Total	
1 Indigenous Production	3,113	-	1,634	-	1,617	172	362	65	166	-	-	-	7,129
2 Import	442	10	1,327	480	362	-	-	-	1	9	-	-	2,631
3 Export	-568	-4	-525	-510	-367	-	-	-	-1	-10	-	-	-1,985
4 International Marine Bunkers	-	-	-	-86	-	-	-	-	-	-	-	-	-86
5 International Aviation Bunkers	-	-	-	-71	-	-	-	-	-	-	-	-	-71
6 Stock Change	-69	0	-11	-5	2	-	-	-	-0	-	-	-	-83
7 Total Primary Energy Supply	2,917	6	2,425	-192	1,614	172	362	65	166	-1	-	-	7,535
8 Main Activity Producer	-1,539	-7	-13	-67	-603	-168	-362	-60	-21	1,129	118	-	-1,592
9 Autoproducer	-178	-34	-1	-31	-126	-4	-	-2	-33	104	134	-	-171
10 Gas Processing	-6	-0	1	-2	-11	-	-	-	-	-	-	-	-19
11 Petroleum Refineries	-	-	-2,363	2,355	-	-	-	-	-	-	-	-	-7
12 Coal Transformation	-441	200	-	-1	-1	-0	-	-	-	-	-	-	-242
13 Other Transformation	-	-	46	-64	-3	-	-	-	-39	-	-	-	-60
14 Loss & Own Use	-57	-17	-11	-90	-173	-	-	-	-0	-193	-46	-	-586
15 Discrepancy	-101	-17	-6	2	-0	0	-	-0	4	-2	0	-	-119
16 Total Final Energy Consumption	594	132	10	1,997	699	-	-	3	77	1,038	207	-	4,758
17 Industry Sector	502	125	0	241	269	-	-	0	44	477	104	-	1,763
18 Transport Sector	3	0	-	1,195	66	-	-	-	-	20	-	-	1,283
19 Other Sector	89	6	0	261	294	-	-	3	33	541	104	-	1,331
19.1 Residential & Commercial	67	6	-	168	288	-	-	3	33	483	96	-	1,143
19.2 Agriculture	10	0	0	52	3	-	-	0	1	16	5	-	87
19.3 Other	12	0	0	41	3	-	-	0	0	42	3	-	101
20 Non-energy	-	-	10	301	71	-	-	-	-	-	-	-	381

## 2.6 Energy Balance Table

This section presents the 2012 aggregate energy balance table for the APEC region. Note that the export/import row does not show the volume of trade between APEC and non-APEC regions.

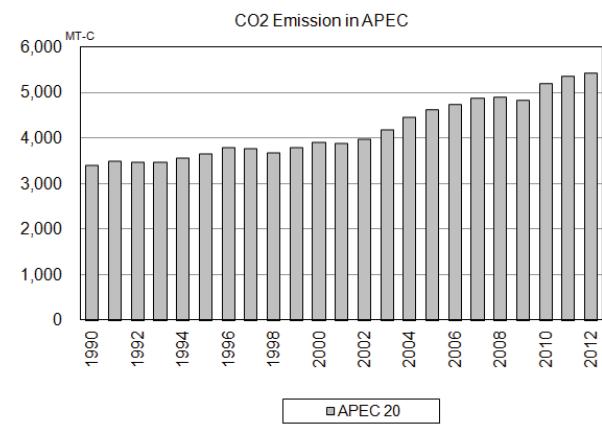
Some of the salient points on the table are:

- 58.9% of coal is used for power generation.
- The category “Other” consists mainly of wastes and commercial renewable energy, such resources being used to generate electricity and consumed directly in the industry sector and the residential/commercial sector.
- Heat accounts for 4.4% of final consumption.
- Oil and Petroleum Products accounted for 42.2% of total final energy consumption, followed in order, by electricity (21.8%), coal (15.3%), and gas (14.7%).

## 2.7 CO<sub>2</sub> Emissions

The CO<sub>2</sub> emission data for 2012 were collected from 9 member economies, namely: Australia; Canada; Chile; Japan; Mexico; Philippines; Russia; Chinese Taipei;

Thailand and United States. For the other member economies, the C.A. estimated the CO<sub>2</sub> emissions. Based on both of the data mentioned above, CO<sub>2</sub> emissions from fuel combustion increased by 1.3% from 5,339 Mt-C in 2011 to 5,409 Mt-C in 2012, or 2.0% per annum from 3,395 Mt-C in 1990.



## **3 Member Tables**

### **3.1 Australia**

## Energy Balance Table of Australia

	Coal	Coal Products	Crude Oil & NGL	Petroleum Products				
				Total	Gasoline	Naphtha	Jet Fuel	Kerosene
<b>2012</b>								
Indigenous Production	239,898	-	23,007	-	-	-	-	-
Import	-	24	24,086	18,167	2,858	-	1,895	-
Export	-194,620	-	-14,625	-2,317	-147	-	-	-111
International Marine Bunkers	-	-	-	-859	-	-	-	-73
International Aviation Bunkers	-	-	-	-3,183	-	-	-3,183	-
Stock Changes	1,957	-359	289	-149	13	8	10	-1
<b>Total Primary Energy Supply</b>	<b>47,235</b>	<b>-335</b>	<b>32,758</b>	<b>11,658</b>	<b>2,724</b>	<b>8</b>	<b>-1,279</b>	<b>-1</b>
Transfers	-	-	272	4,006	-	-	-	-
<b>Total Transformation Sector</b>	<b>-45,378</b>	<b>1,553</b>	<b>-32,830</b>	<b>30,357</b>	<b>12,573</b>	<b>11</b>	<b>4,624</b>	<b>1</b>
Main Activity Producer	-42,156	-33	-	-207	-	-	-	-158
Autoproducers	-	-69	-	-659	-	-	-	-515
Gas Processing	-	-	-	-6	-	-	-	-
Petroleum Refineries	-	-	-33,154	31,229	12,573	11	4,624	1
Coal Transformation	-3,221	1,655	-	-	-	-	-	10,601
Other Transformation	-	-	324	-	-	-	-	-
Loss & Own Use	-	-550	-58	-3,758	-	-	-	-3
Discrepancy	123	134	-127	-954	222	152	-766	20
<b>Total Final Energy Consumption</b>	<b>1,981</b>	<b>802</b>	<b>14</b>	<b>41,309</b>	<b>15,519</b>	<b>171</b>	<b>2,579</b>	<b>17</b>
<b>Industry Sector</b>	<b>1,827</b>	<b>783</b>	<b>14</b>	<b>3,992</b>	<b>5</b>	<b>-</b>	<b>-</b>	<b>4</b>
Iron and Steel	13	626	-	12	-	-	-	11
Chemical & Petrochemical	150	36	-	151	-	-	-	117
Non-metallic Minerals	526	9	-	454	-	-	-	21
Other Industries	1,138	112	14	3,375	5	-	-	2,506
<b>Transport Sector</b>	<b>148</b>	<b>-</b>	<b>-</b>	<b>30,185</b>	<b>15,369</b>	<b>-</b>	<b>2,579</b>	<b>-</b>
Domestic Air Transport	-	-	-	2,640	62	-	2,579	-
Road	-	-	-	26,014	15,308	-	-	9,783
Rail	-	-	-	916	-	-	-	910
Inland Waterways	148	-	-	551	-	-	-	434
Pipeline Transport	-	-	-	-	-	-	-	-
Non-specified Transport	-	-	-	63	-	-	-	54
<b>Other Sector</b>	<b>6</b>	<b>19</b>	<b>-</b>	<b>2,960</b>	<b>144</b>	<b>-</b>	<b>-</b>	<b>8</b>
Residential	-	1	-	296	-	-	-	24
Commerce and Public Services	6	18	-	639	-	-	-	7
Agriculture	-	-	-	2,026	144	-	-	1
Non-specified Others	-	-	-	-	-	-	-	-
<b>Non-energy</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>4,172</b>	<b>-</b>	<b>171</b>	<b>-</b>	<b>5</b>
<b>2011</b>								
Indigenous Production	222,573	-	23,092	-	-	-	-	-
Import	-	35	25,955	14,816	2,071	-	1,756	-
Export	-184,069	-	-16,469	-2,198	-151	-	-10	-
International Marine Bunkers	-	-	-	-624	-	-	-	-43
International Aviation Bunkers	-	-	-	-3,431	-	-	-3,431	-
Stock Changes	9,689	-49	242	-6	-80	5	-58	2
<b>Total Primary Energy Supply</b>	<b>48,193</b>	<b>-13</b>	<b>32,820</b>	<b>8,558</b>	<b>1,840</b>	<b>5</b>	<b>-1,743</b>	<b>2</b>
Transfers	-	-	33	4,305	-	-	-	-
<b>Total Transformation Sector</b>	<b>-46,084</b>	<b>1,562</b>	<b>-33,689</b>	<b>32,598</b>	<b>13,345</b>	<b>166</b>	<b>4,620</b>	<b>11</b>
Main Activity Producer	-42,483	-28	-	-86	-	-	-	-67
Autoproducers	-	-73	-	-701	-	-	-	-539
Gas Processing	-	-	-	-7	-	-	-	-
Petroleum Refineries	-	-	-34,025	33,391	13,345	166	4,620	11
Coal Transformation	-3,601	1,663	-	-	-	-	-	11,069
Other Transformation	-	-	335	-	-	-	-	-
Loss & Own Use	-	-566	-56	-3,482	-	-	-	-11
Discrepancy	-61	-37	907	-2,073	-904	-171	-350	15
<b>Total Final Energy Consumption</b>	<b>2,047</b>	<b>946</b>	<b>14</b>	<b>39,905</b>	<b>14,280</b>	<b>-</b>	<b>2,528</b>	<b>17</b>
<b>Industry Sector</b>	<b>1,916</b>	<b>927</b>	<b>14</b>	<b>3,436</b>	<b>3</b>	<b>-</b>	<b>-</b>	<b>4</b>
Iron and Steel	15	743	-	11	-	-	-	10
Chemical & Petrochemical	134	36	-	152	-	-	-	2
Non-metallic Minerals	557	9	-	343	-	-	-	1
Other Industries	1,210	140	14	2,929	3	-	-	1
<b>Transport Sector</b>	<b>121</b>	<b>-</b>	<b>-</b>	<b>29,012</b>	<b>14,123</b>	<b>-</b>	<b>2,528</b>	<b>-</b>
Domestic Air Transport	-	-	-	2,587	60	-	2,528	-
Road	-	-	-	24,810	14,064	-	-	9,510
Rail	-	-	-	878	-	-	-	877
Inland Waterways	121	-	-	701	-	-	-	564
Pipeline Transport	-	-	-	-	-	-	-	-
Non-specified Transport	-	-	-	36	-	-	-	34
<b>Other Sector</b>	<b>10</b>	<b>19</b>	<b>-</b>	<b>3,036</b>	<b>153</b>	<b>-</b>	<b>-</b>	<b>8</b>
Residential	-	1	-	293	-	-	-	25
Commerce and Public Services	10	18	-	625	-	-	-	7
Agriculture	-	-	-	2,060	153	-	-	1
Non-specified Others	-	-	-	57	-	-	-	-
<b>Non-energy</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>4,422</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>5</b>

unit: ktoe

Fuel Oil	LPG	Refinery Gas	Ethane	Other Products	Gas	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
-	-	-	-	-	47,302	1,206	-	927	5,061	-	-	317,402
1,520	597	-	-	1,735	4,997	-	-	-	-	-	-	47,273
-466	-1,315	-	-	-279	-22,516	-	-	-	-	-	-	-234,078
-786	-	-	-	-	-	-	-	-	-	-	-	-859
-	-	-	-	-	-	-	-	-	-	-	-	-3,183
18	-52	-	-	-66	-	-	-	-	-	-	-	1,739
287	-770	-	-	1,390	29,782	1,206	-	927	5,061	-	-	128,293
-	1,965	-	381	1,660	-	-	-	-	-	-	-	4,278
820	598	917	-	885	-11,403	-1,206	-	-655	-1,001	21,404	-	-39,160
-16	-	-	-	-33	-8,484	-1,206	-	-527	-181	19,803	-	-32,993
-120	-	-	-	-24	-2,602	-	-	-128	-496	1,601	-	-2,352
-	-6	-	-	-	-255	-	-	-	-	-	-	-261
956	604	917	-	942	-	-	-	-	-	-	-	-1,925
-	-	-	-	-	-62	-	-	-	-	-	-	-1,628
-	-	-	-	-	-	-	-	-324	-	-	-	-0
-28	-13	-895	-27	-672	-6,215	-	-	-	-	-3,402	-	-13,982
-200	96	-0	-	377	199	-	-	-	0	0	-	-625
878	1,876	22	354	3,640	12,364	-	-	272	4,060	18,002	-	78,805
757	261	22	-	287	6,941	-	-	-	2,686	6,876	-	23,120
-	1	-	-	-	425	-	-	-	-	316	-	1,394
10	-	22	-	-	1,300	-	-	-	140	373	-	2,151
11	132	-	-	287	1,266	-	-	-	18	387	-	2,658
736	128	-	-	-	3,949	-	-	-	2,529	5,800	-	16,917
117	929	-	-	11	475	-	-	-	-	350	-	31,158
-	-	-	-	-	-	-	-	-	-	-	-	2,640
-	924	-	-	-	57	-	-	-	-	-	-	26,072
-	1	-	-	5	-	-	-	-	-	195	-	1,111
117	-	-	-	-	-	-	-	-	-	-	-	699
-	-	-	-	-	389	-	-	-	-	0	-	390
-	3	-	-	6	28	-	-	-	-	155	-	246
4	387	-	-	-	4,298	-	-	272	1,374	10,776	-	19,704
-	271	-	-	-	3,243	-	-	261	1,345	5,337	-	10,483
4	73	-	-	-	1,052	-	-	10	29	5,240	-	6,994
-	43	-	-	-	3	-	-	-	-	199	-	2,227
-	-	-	-	-	-	-	-	-	-	-	-	-
-	300	-	354	3,342	650	-	-	-	-	-	-	4,822
-	-	-	-	-	44,754	1,441	-	837	4,044	-	-	296,740
1,439	518	-	-	1,501	5,611	-	-	-	-	-	-	46,418
-187	-1,535	-	-	-215	-23,337	-	-	-	-	-	-	-226,074
-581	-	-	-	-	-	-	-	-	-	-	-	-624
-	-	-	-	-	-	-	-	-	-	-	-	-3,431
-1	56	-	-	120	-	-	-	-	-	-	-	9,876
670	-960	-	-	1,407	27,028	1,441	-	837	4,044	-	-	122,906
-	2,092	-	354	1,859	-	-	-	-	-	-	-	4,338
832	862	916	-	1,383	-11,119	-1,441	-	-574	-935	21,721	-	-37,962
-5	-	-	-	-13	-8,323	-1,441	-	-501	-302	20,225	-	-32,938
-131	-	-	-	-31	-2,474	-	-	-73	-298	1,496	-	-2,124
-	-7	-	-	-	-255	-	-	-	-	-	-	-262
969	869	916	-	1,427	-	-	-	-	-	-	-	-633
-	-	-	-	-	-68	-	-	-	-	-	-	-2,005
-	-	-	-	-	-	-	-	-335	-	-	-	0
-56	-15	-913	-27	-682	-7,996	-	-	-	-	-3,581	-	-15,682
-556	175	29	27	49	5,094	-	-	-	0	-0	-	3,830
890	2,154	31	354	4,015	13,007	-	-	262	3,109	18,140	-	77,431
750	237	31	-	190	7,597	-	-	-	1,723	7,031	-	22,643
-	1	-	-	-	504	-	-	-	-	375	-	1,649
9	-	31	-	-	1,405	-	-	-	149	379	-	2,255
11	123	-	-	190	1,433	-	-	-	20	410	-	2,771
730	113	-	-	-	4,255	-	-	-	1,553	5,866	-	15,968
137	1,240	-	-	-	461	-	-	-	-	338	-	29,933
-	-	-	-	-	-	-	-	-	-	-	-	2,587
-	1,236	-	-	-	53	-	-	-	-	-	-	24,863
-	1	-	-	-	-	-	-	-	-	195	-	1,073
137	-	-	-	-	-	-	-	-	-	-	-	822
-	-	-	-	-	377	-	-	-	-	0	-	378
-	2	-	-	-	31	-	-	-	-	143	-	210
3	383	-	-	57	4,246	-	-	262	1,386	10,771	-	19,730
-	268	-	-	-	3,185	-	-	253	1,373	5,329	-	10,435
3	73	-	-	-	1,059	-	-	9	13	5,253	-	6,987
-	42	-	-	-	3	-	-	-	-	189	-	2,251
-	-	-	-	57	-	-	-	-	-	-	-	57
-	295	-	354	3,768	702	-	-	-	-	-	-	5,124

**Major Energy Indicators of Australia**

	1990	2000	2005	2008	2009	2010	2011	ktoe 2012
<b>Total</b>								
Primary Energy Supply	86,193	108,108	113,485	122,508	122,109	122,519	122,906	128,293
Indigenous Production	157,529	233,563	265,171	282,521	290,573	308,587	296,740	317,402
Import	14,398	26,382	31,110	40,591	41,032	43,001	46,418	47,273
Export	-78,919	-153,520	-179,860	-196,513	-203,526	-228,634	-226,074	-234,078
Final Energy Consumption	56,471	69,578	72,132	76,091	74,845	76,330	77,431	78,805
Industry	19,133	23,789	22,170	23,130	21,956	22,652	22,701	23,120
Transport	21,111	25,658	27,143	29,269	28,987	29,288	29,933	31,158
Residential	7,490	9,061	9,287	9,819	10,073	10,269	10,435	10,483
Commerce & Public Services	3,482	5,041	6,236	6,736	6,961	7,015	6,987	6,994
Others	5,255	6,029	7,296	7,136	6,869	7,106	7,375	7,050
<b>Coal, Coal Products</b>								
Primary Energy Supply	34,941	48,147	51,035	51,533	52,684	50,044	48,179	46,900
Indigenous Production	106,103	164,578	201,579	215,910	223,333	236,405	222,573	239,898
Import	-	-	14	5	4	9	35	24
Export	-67,267	-121,426	-150,990	-163,964	-169,048	-190,147	-184,069	-194,620
Transformation Sector	-30,350	-42,486	-46,618	-47,372	-49,299	-46,301	-44,522	-43,824
Power Generation	-28,773	-41,069	-45,118	-45,837	-47,911	-44,632	-42,584	-42,258
Final Energy Consumption	4,214	4,126	3,502	3,546	3,125	3,115	2,993	2,783
Industry	4,003	3,990	3,248	3,323	2,914	2,913	2,843	2,610
Transport	72	88	181	181	176	171	121	148
Residential	12	2	3	2	1	1	1	1
Commerce & Public Services	126	45	69	39	34	30	27	24
Others	-	-	-	-	-	-	-	-
<b>Crude Oil</b>								
Primary Energy Supply	33,075	36,578	33,973	32,085	30,514	30,641	32,820	32,758
Indigenous Production	29,027	33,911	25,673	23,855	24,510	23,907	23,092	23,007
Import	10,210	22,314	21,377	21,480	19,876	22,319	25,955	24,086
Export	-5,856	-19,365	-13,190	-13,428	-13,914	-15,152	-16,469	-14,625
Transformation Sector	-30,675	-37,538	-34,076	-32,564	-32,821	-31,973	-33,689	-32,830
Petroleum Refineries	-30,675	-37,538	-34,095	-32,723	-33,056	-32,251	-34,025	-33,154
<b>Petroleum Products</b>								
Primary Energy Supply	-1,873	-2,425	2,940	7,415	8,645	9,599	8,558	11,658
Import	4,188	4,068	9,719	14,392	15,596	15,821	14,816	18,167
Export	-3,447	-3,463	-3,296	-3,125	-2,544	-2,442	-2,198	-2,317
Transformation Sector	31,064	37,687	33,544	31,786	32,083	30,913	32,598	30,357
Power Generation	-946	-525	-824	-1,200	-900	-785	-787	-866
Petroleum Refineries	32,061	38,258	34,399	33,001	32,996	31,707	33,391	31,229
Final Energy Consumption	28,995	34,714	36,723	38,819	38,198	38,995	39,905	41,309
Industry	2,886	3,548	3,243	3,434	3,236	3,590	3,493	3,992
Transport	20,874	25,064	26,300	28,332	28,005	28,333	29,012	30,185
Residential	378	350	293	286	284	279	293	296
Commerce & Public Services	256	313	493	603	622	624	625	639
Others	4,601	5,440	6,393	6,163	6,051	6,167	6,481	6,198
<b>Natural Gas</b>								
Primary Energy Supply	14,790	19,275	18,972	24,315	24,556	26,214	27,028	29,782
Indigenous Production	17,140	28,540	31,355	35,596	37,020	42,254	44,754	47,302
Import	-	-	-	4,715	5,557	4,852	5,611	4,997
Export	-2,350	-9,265	-12,383	-15,995	-18,020	-20,892	-23,337	-22,516
Transformation Sector	-3,908	-4,356	-5,691	-8,246	-9,474	-9,623	-11,119	-11,403
Power Generation	-3,471	-4,060	-5,407	-7,973	-9,204	-9,292	-10,796	-11,086
Final Energy Consumption	8,811	11,459	12,452	12,945	12,433	12,837	13,007	12,364
Industry	5,667	7,165	7,647	7,880	7,320	7,507	7,597	6,941
Transport	10	304	364	409	440	445	461	475
Residential	1,934	2,564	2,777	2,952	3,040	3,102	3,185	3,243
Commerce & Public Services	750	1,084	966	947	1,016	1,048	1,059	1,052
Others	450	341	697	757	619	736	705	653
<b>Electricity</b>								
Power Generation	13,269	18,048	19,638	20,904	21,387	21,681	21,721	21,404
Thermal	11,343	15,938	16,256	17,267	19,226	19,326	19,106	18,866
Hydro	1,217	1,407	1,317	1,024	1,015	1,161	1,441	1,206
Nuclear	-	-	-	-	-	-	-	-
Others	709	703	2,065	2,613	1,146	1,194	1,174	1,332
Final Energy Consumption	11,112	14,856	16,274	17,403	17,758	17,983	18,140	18,002
Industry	5,090	6,624	6,369	6,725	6,769	6,877	7,031	6,876
Transport	155	201	297	347	366	339	338	350
Residential	3,315	4,194	4,717	4,996	5,165	5,282	5,329	5,337
Commerce & Public Services	2,348	3,590	4,685	5,118	5,260	5,281	5,253	5,240
Others	204	248	206	217	199	203	189	199

### Major Economic Indicators of Australia

	1990	2000	2005	2008	2009	2010	2011	2012
Population (Millions) *1	17.07	19.15	20.39	21.25	21.69	22.03	22.34	22.72
Gross Domestic Product *3								
Real Term (Billions of 2010 Price and 2010 USD)	636.19	881.64	1,034.36	1,146.25	1,166.22	1,189.11	1,215.74	1,259.69
Real Term (Billions of 2010 Price and 2010 PPP)	460.48	638.15	748.69	829.67	844.13	860.70	879.97	911.78
Nominal (Billions of Current USD)	315.88	383.31	704.64	988.91	981.64	1,189.11	1,450.98	1,538.69
GDP per Capita *3								
Real Term (2010 Price and 2010 USD)	37,280	46,032	50,717	53,943	53,764	53,973	54,420	55,435
Real Term (2010 Price and 2010 PPP)	26,984	33,318	36,710	39,045	38,915	39,066	39,390	40,124
Nominal (Current USD)	18,510	20,013	34,550	46,538	45,254	53,973	64,950	67,713
Nominal GDP & its Components (Billions of Current AUD) *1								
Gross Domestic Product	404.66	661.14	922.71	1,178.95	1,258.65	1,296.32	1,406.67	1,486.07
Household Final Consumption Expenditure, etc.	225.97	383.68	533.50	663.85	683.99	717.52	759.05	799.14
General Government Final Consumption Expenditure	69.23	116.71	160.73	201.87	220.68	233.31	251.22	265.77
Gross Fixed Capital Formation	112.30	172.33	249.80	339.34	355.51	360.27	376.21	417.66
Stock Change	5.19	1.85	3.72	4.53	-2.81	-2.18	6.22	6.58
Exports of Goods and Services	61.17	128.42	166.63	232.75	283.46	252.15	297.32	315.64
Imports of Goods and Services	69.20	141.85	191.68	263.38	282.18	264.75	283.35	318.71
Real GDP & its Components (Billions of 2000 AUD) *1								
Gross Domestic Product	750.52	1,040.09	1,220.25	1,352.24	1,375.81	1,402.81	1,434.23	1,486.07
Household Final Consumption Expenditure, etc.	420.74	546.74	656.09	740.69	741.98	754.63	782.21	799.14
General Government Final Consumption Expenditure	135.49	182.73	212.46	233.30	243.32	247.71	256.00	265.77
Gross Fixed Capital Formation	143.66	212.04	276.21	347.33	354.74	362.21	375.54	417.66
Stock Change	11.86	1.79	7.62	4.09	-5.24	-1.70	5.14	6.58
Exports of Goods and Services	105.60	225.36	253.70	279.89	284.79	299.43	301.35	315.64
Imports of Goods and Services	66.83	128.57	185.82	253.05	243.79	259.46	286.01	318.71
Sectional Shares of Real GDP (%) *1								
Agriculture, Fishery and Forest	2.5	2.6	2.4	2.0	2.4	2.3	2.3	2.3
Industry	28.8	26.6	25.7	26.0	25.8	26.0	25.9	26.4
Services, etc.	61.9	63.6	64.8	65.2	65.3	65.3	65.4	65.1
Industrial Production Index (2010=100) *2	73.4	91.7	95.9	98.9	97.1	100.0	97.7	100.8
External Trade (Billions of Current USD) *1								
Exports, f.o.b.	39.752	63.870	106.097	187.257	154.331	212.634	270.387	256.830
Imports, c.i.f.	41.985	71.529	125.281	200.273	165.471	201.639	243.701	260.942
Balance of Payments (Billions of Current USD) *2								
Trade Balance	N.A.	N.A.	-14.265	-7.787	-7.475	11.336	22.481	-12.184
Current Account	N.A.	N.A.	-43.342	-52.121	-48.898	-43.891	-41.208	-64.224
Overall Balance	N.A.	N.A.	5.965	2.346	7.557	-0.912	2.887	2.881
Foreign Exchange Rate (AUD/USD) *1	1.2811	1.7248	1.3095	1.1922	1.2822	1.0902	0.9695	0.9658
PPP conversion factor, GDP (AUD/International Dollar) *1	1.3614	1.3105	1.3884	1.4791	1.4424	1.5061	1.5111	1.5274
Price Indices								
GDP Deflator (2012=100) *3	53.9	63.6	75.6	87.2	91.5	92.4	98.1	100.0
Manufacturing Output Price Index (2010=100) *2	66.4	75.9	86.7	103.8	98.1	100.0	103.4	103.6
Consumer Price Index (2010=100) *2	59.8	74.4	86.4	95.5	97.2	100.0	103.4	105.2
Growth Rate (%) *3								
Real GDP	4.15	3.88	3.22	3.70	1.74	1.96	2.24	3.61
Population	1.49	1.20	1.33	2.02	2.08	1.57	1.40	1.72
Price								
Manufacturing Output Price Index	6.0	7.1	6.0	8.3	-5.4	1.9	3.4	0.2
Consumer Price Index	7.3	4.5	2.7	4.4	1.8	2.8	3.4	1.8

Source : \*1 : "World Development Indicators", World Bank

\*2 : "International Financial Statistics", International Monetary Fund

\*3 : Calculated from \*1 and \*2 by the Coordinating Agency

Note : N.A. means "not available"  
: AUD means Australian Dollar, USD means United States Dollar  
: PPP means Purchasing Power Parity

## 3.2 Brunei Darussalam

**Energy Balance Table of Brunei Darussalam**

	Coal	Coal Products	Crude Oil & NGL	Petroleum Products				
				Total	Gasoline	Naphtha	Jet Fuel	Kerosene
<b>2012</b>								
Indigenous Production	-	-	8,448	-	-	-	-	-
Import	-	-	8	377	124	-	34	-
Export	-	-	-7,896	-77	-	-	-8	-
International Marine Bunkers	-	-	-	-	-	-	-	-
International Aviation Bunkers	-	-	-	-85	-	-	-85	-
Stock Changes	-	-	-31	6	-1	-	3	-
<b>Total Primary Energy Supply</b>	-	-	<b>530</b>	<b>220</b>	<b>123</b>	-	<b>-57</b>	-
Transfers	-	-	-	-	-	-	-	-
<b>Total Transformation Sector</b>	-	-	<b>-513</b>	<b>445</b>	<b>156</b>	-	<b>57</b>	-
Main Activity Producer	-	-	-	-11	-	-	-	-11
Autoproducers	-	-	-	-	-	-	-	-
Gas Processing	-	-	-	17	-	-	-	-
Petroleum Refineries	-	-	-513	438	156	-	57	-
Coal Transformation	-	-	-	-	-	-	-	-
Other Transformation	-	-	-	-	-	-	-	-
Loss & Own Use	-	-	-	-12	-	-	-	-
Discrepancy	-	-	-17	13	3	-	-1	7
<b>Total Final Energy Consumption</b>	-	-	-	<b>666</b>	<b>282</b>	-	-	<b>7</b>
Industry Sector	-	-	-	185	-	-	-	7
Iron and Steel	-	-	-	-	-	-	-	-
Chemical & Petrochemical	-	-	-	-	-	-	-	-
Non-metallic Minerals	-	-	-	-	-	-	-	-
Other Industries	-	-	-	185	-	-	-	7
Transport Sector	-	-	-	451	282	-	-	-
Domestic Air Transport	-	-	-	-	-	-	-	-
Road	-	-	-	451	282	-	-	169
Rail	-	-	-	-	-	-	-	-
Inland Waterways	-	-	-	-	-	-	-	-
Pipeline Transport	-	-	-	-	-	-	-	-
Non-specified Transport	-	-	-	-	-	-	-	-
Other Sector	-	-	-	17	-	-	-	0
Residential	-	-	-	17	-	-	-	0
Commerce and Public Services	-	-	-	-	-	-	-	-
Agriculture	-	-	-	0	-	-	-	0
Non-specified Others	-	-	-	-	-	-	-	-
Non-energy	-	-	-	14	-	-	-	-
<b>2011</b>								
Indigenous Production	-	-	8,859	-	-	-	-	-
Import	-	-	11	265	79	-	18	-
Export	-	-	-8,078	-121	-	-	-11	-
International Marine Bunkers	-	-	-	-	-	-	-	-
International Aviation Bunkers	-	-	-	-114	-	-	-114	-
Stock Changes	-	-	-68	3	4	-	-1	-
<b>Total Primary Energy Supply</b>	-	-	<b>723</b>	<b>33</b>	<b>83</b>	-	<b>-109</b>	-
Transfers	-	-	-	-	-	-	-	-
<b>Total Transformation Sector</b>	-	-	<b>-708</b>	<b>605</b>	<b>179</b>	-	<b>112</b>	-
Main Activity Producer	-	-	-	-10	-	-	-	-10
Autoproducers	-	-	-	-	-	-	-	-
Gas Processing	-	-	-	17	-	-	-	-
Petroleum Refineries	-	-	-708	599	179	-	112	-
Coal Transformation	-	-	-	-	-	-	-	-
Other Transformation	-	-	-	-	-	-	-	-
Loss & Own Use	-	-	-	-16	-	-	-	-
Discrepancy	-	-	-15	2	-1	-	-3	3
<b>Total Final Energy Consumption</b>	-	-	-	<b>624</b>	<b>262</b>	-	-	<b>3</b>
Industry Sector	-	-	-	160	-	-	-	3
Iron and Steel	-	-	-	-	-	-	-	-
Chemical & Petrochemical	-	-	-	-	-	-	-	-
Non-metallic Minerals	-	-	-	-	-	-	-	-
Other Industries	-	-	-	160	-	-	-	3
Transport Sector	-	-	-	431	262	-	-	-
Domestic Air Transport	-	-	-	-	-	-	-	-
Road	-	-	-	431	262	-	-	169
Rail	-	-	-	-	-	-	-	-
Inland Waterways	-	-	-	-	-	-	-	-
Pipeline Transport	-	-	-	-	-	-	-	-
Non-specified Transport	-	-	-	-	-	-	-	-
Other Sector	-	-	-	17	-	-	-	-
Residential	-	-	-	17	-	-	-	-
Commerce and Public Services	-	-	-	-	-	-	-	-
Agriculture	-	-	-	-	-	-	-	-
Non-specified Others	-	-	-	-	-	-	-	-
Non-energy	-	-	-	17	-	-	-	-

unit: ktoe

Fuel Oil	LPG	Refinery Gas	Ethane	Other Products	Gas	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
-	-	-	-	-	11,568	-	-	0	-	-	-	20,016
-	-	-	-	15	-	-	-	-	-	-	-	384
-64	-	-	-	-	-8,899	-	-	-	-	-	-	-16,872
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-85
-	0	-	-	0	-12	-	-	-	-	-	-	-37
-64	0	-	-	15	2,656	-	-	0	-	-	-	3,406
-	-	-	-	-	-	-	-	-	-	-	-	-
64	17	43	-	-	-1,580	-	-	-0	-	338	-	-1,309
-	-	-	-	-	-1,107	-	-	-0	-	303	-	-815
-	-	-	-	-	-217	-	-	-	-	35	-	-182
-	17	-	-	-	-256	-	-	-	-	-	-	-239
64	-	43	-	-	-	-	-	-	-	-	-	-74
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-12	-	-	-1,064	-	-	-	-	-62	-	-1,138
0	-0	0	-	0	13	-	-	-	-	-0	-	9
-	17	31	-	16	26	-	-	-	-	276	-	968
-	-	31	-	2	-	-	-	-	-	18	-	203
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	31	-	2	-	-	-	-	-	18	-	203
-	-	-	-	-	-	-	-	-	-	-	-	451
-	-	-	-	-	-	-	-	-	-	-	-	451
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	17	-	-	-	26	-	-	-	-	258	-	300
-	17	-	-	-	26	-	-	-	-	115	-	158
-	-	-	-	-	-	-	-	-	-	143	-	143
-	-	-	-	-	-	-	-	-	-	-	-	0
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	14	-	-	-	-	-	-	14
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	11,890	-	-	0	-	-	-	20,749
-	-	-	-	18	-	-	-	-	-	-	-	276
-96	-	-	-	-	-9,291	-	-	-	-	-	-	-17,491
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-114
-	0	-	-	-1	22	-	-	-	-	-	-	-43
-96	0	-	-	18	2,621	-	-	0	-	-	-	3,377
-	-	-	-	-	-	-	-	-	-	-	-	-
96	17	43	-	-	-1,241	-	-	-0	-	320	-	-1,023
-	-	-	-	-	-1,101	-	-	-0	-	292	-	-819
-	-	-	-	-	-154	-	-	-	-	28	-	-126
-	17	-	-	-	13	-	-	-	-	-	-	30
96	-	43	-	-	-	-	-	-	-	-	-	-108
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-16	-	-	-1,328	-	-	-	-	-57	-	-1,401
-	-0	-1	-	2	-25	-	-	-	-	0	-	-38
-	17	26	-	19	27	-	-	-	-	264	-	915
-	-	26	-	2	-	-	-	-	-	19	-	179
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	26	-	2	-	-	-	-	-	19	-	179
-	-	-	-	-	-	-	-	-	-	-	-	431
-	-	-	-	-	-	-	-	-	-	-	-	431
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	17	-	-	-	27	-	-	-	-	244	-	288
-	17	-	-	-	27	-	-	-	-	103	-	147
-	-	-	-	-	-	-	-	-	-	141	-	141
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	17	-	-	-	-	-	-	17

**Major Energy Indicators of Brunei Darussalam**

ktoe

	1990	2000	2005	2008	2009	2010	2011	2012
<b>Total</b>								
Primary Energy Supply	2,148	2,090	3,722	3,726	2,679	3,706	3,377	3,406
Indigenous Production	15,899	17,258	21,589	20,999	19,905	20,630	20,749	20,016
Import	67	24	54	65	109	155	276	384
Export	-13,780	-15,245	-17,866	-17,154	-17,104	-17,154	-17,491	-16,872
Final Energy Consumption	422	745	871	940	955	981	915	968
Industry	82	170	164	188	209	205	179	203
Transport	177	258	317	362	352	395	431	451
Residential	45	38	138	214	150	144	147	158
Commerce & Public Services	-	-	119	57	62	134	141	143
Others	118	279	133	120	181	104	17	14
<b>Coal, Coal Products</b>								
Primary Energy Supply	-	-	-	-	-	-	-	-
Indigenous Production	-	-	-	-	-	-	-	-
Import	-	-	-	-	-	-	-	-
Export	-	-	-	-	-	-	-	-
Transformation Sector	-	-	-	-	-	-	-	-
Power Generation	-	-	-	-	-	-	-	-
Final Energy Consumption	-	-	-	-	-	-	-	-
Industry	-	-	-	-	-	-	-	-
Transport	-	-	-	-	-	-	-	-
Residential	-	-	-	-	-	-	-	-
Commerce & Public Services	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-
<b>Crude Oil</b>								
Primary Energy Supply	327	600	720	825	788	698	723	530
Indigenous Production	7,752	9,092	10,430	9,690	9,284	9,219	8,859	8,448
Import	-	10	14	17	17	14	11	8
Export	-7,424	-8,616	-9,739	-8,770	-8,369	-8,718	-8,078	-7,896
Transformation Sector	-256	-645	-703	-806	-769	-733	-708	-513
Petroleum Refineries	-256	-645	-703	-806	-769	-733	-708	-513
<b>Petroleum Products</b>								
Primary Energy Supply	35	-34	-14	-21	22	34	33	220
Import	67	15	41	48	93	142	265	377
Export	-3	-1	-	-	-	-	-121	-77
Transformation Sector	345	568	621	661	628	636	605	445
Power Generation	-3	-5	-7	-8	-9	-10	-10	-11
Petroleum Refineries	347	573	628	669	637	645	599	438
Final Energy Consumption	308	510	582	642	646	664	624	666
Industry	46	119	115	141	161	150	160	185
Transport	177	258	317	362	352	395	431	451
Residential	12	15	17	19	18	16	17	17
Commerce & Public Services	-	-	-	-	-	-	-	-
Others	72	118	133	120	115	104	17	14
<b>Natural Gas</b>								
Primary Energy Supply	1,785	1,524	3,016	2,922	1,868	2,975	2,621	2,656
Indigenous Production	8,138	8,152	11,143	11,291	10,604	11,410	11,890	11,568
Import	-	-	-	-	-	-	-	-
Export	-6,352	-6,628	-8,127	-8,384	-8,735	-8,436	-9,291	-8,899
Transformation Sector	-1,879	-1,780	-2,534	-2,550	-1,464	-1,733	-1,241	-1,580
Power Generation	-1,199	-1,447	-1,991	-1,966	-1,985	-1,303	-1,255	-1,323
Final Energy Consumption	32	22	25	28	30	31	27	26
Industry	-	-	-	-	-	4	-	-
Transport	-	-	-	-	-	-	-	-
Residential	32	22	25	28	26	27	27	26
Commerce & Public Services	-	-	-	-	-	-	-	-
Others	-	-	-	-	3	-	-	-
<b>Electricity</b>								
Power Generation	101	244	281	294	311	326	320	338
Thermal	101	244	281	294	311	326	320	338
Hydro	-	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	0	0
Final Energy Consumption	82	213	264	270	279	286	264	276
Industry	36	51	49	47	48	51	19	18
Transport	-	-	-	-	-	-	-	-
Residential	-	-	96	166	105	102	103	115
Commerce & Public Services	-	-	119	57	62	134	141	143
Others	46	161	-	-	63	-	-	-

**Major Economic Indicators of Brunei Darussalam**

	1990	2000	2005	2008	2009	2010	2011	2012
Population (Millions) *1	0.26	0.33	0.37	0.39	0.39	0.40	0.41	0.41
Gross Domestic Product *3								
Real Term (Billions of 2010 Price and 2010 USD)	8.66	10.80	11.97	12.27	12.06	12.37	12.79	12.92
Real Term (Billions of 2010 Price and 2010 PPP)	19.42	24.23	26.85	27.53	27.05	27.75	28.70	28.97
Nominal (Billions of Current USD)	3.52	6.00	9.53	14.39	10.73	12.37	16.69	16.95
GDP per Capita *3								
Real Term (2010 Price and 2010 USD)	33,698	32,561	32,546	31,632	30,571	30,882	31,475	31,332
Real Term (2010 Price and 2010 PPP)	75,592	73,041	73,007	70,957	68,577	69,276	70,604	70,284
Nominal (Current USD)	13,702	18,087	25,914	37,095	27,212	30,882	41,060	41,127
Nominal GDP & its Components (Billions of Current BND) *1								
Gross Domestic Product	6.38	10.35	15.86	20.40	15.61	16.87	21.00	21.19
Household Final Consumption Expenditure, etc.	2.22	3.06	4.34	3.77	3.46	2.22	3.95	4.01
General Government Final Consumption Expenditure	1.41	2.67	2.92	3.50	3.64	3.78	3.57	3.66
Gross Fixed Capital Formation	1.19	1.34	1.80	2.79	2.74	2.68	2.75	2.88
Stock Change	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Exports of Goods and Services	3.94	6.97	11.13	15.97	11.36	13.74	16.73	17.24
Imports of Goods and Services	2.38	3.71	4.33	5.63	5.59	5.54	5.99	6.61
Real GDP & its Components (Billions of 2000 BND) *1								
Gross Domestic Product	8.29	10.35	11.46	11.75	11.55	11.85	12.25	12.37
Household Final Consumption Expenditure, etc.	2.69	3.06	3.64	4.52	4.44	5.15	5.33	6.31
General Government Final Consumption Expenditure	2.11	2.67	2.87	3.72	3.91	4.06	3.91	3.99
Gross Fixed Capital Formation	1.55	1.34	1.72	2.50	2.49	2.40	2.45	2.52
Stock Change	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Exports of Goods and Services	4.92	6.97	7.49	6.58	6.23	5.74	6.70	6.46
Imports of Goods and Services	2.98	3.71	4.25	5.56	5.52	5.50	6.13	6.91
Sectional Shares of Real GDP (%) *1								
Agriculture, Fishery and Forest	0.8	1.0	1.3	1.1	1.2	1.1	1.1	1.3
Industry	63.3	63.7	61.2	54.8	53.0	52.5	52.4	51.0
Services, etc.	35.9	35.3	37.5	44.1	45.8	46.3	46.4	47.8
Industrial Production Index (2000=100)	N.A.							
External Trade (Billions of Current USD) *1								
Exports, f.o.b.	2.213	3.903	6.249	10.319	7.200	8.907	12.440	13.500
Imports, c.i.f.	1.001	1.107	1.491	2.572	2.449	2.459	2.943	3.450
Balance of Payments (Billions of Current USD) *2								
Trade Balance	N.A.	N.A.	4.829	7.840	4.889	N.A.	N.A.	8.766
Current Account	N.A.	N.A.	4.033	6.939	3.977	N.A.	N.A.	5.684
Overall Balance	N.A.	N.A.	3.942	8.277	5.574	N.A.	N.A.	2.765
Foreign Exchange Rate (BND/USD) *1	1.8125	1.7240	1.6644	1.4172	1.4546	1.3635	1.2579	1.2496
Purchasing Power Parity (BND/International Dollar) *1	0.4975	0.5276	0.6500	0.7556	0.5842	0.6078	0.7174	0.7048
Price Indices								
GDP Deflator (2000=100) *3	77.0	100.0	138.4	173.5	135.2	142.4	171.4	171.3
Wholesale Price Index (2000=100) *2	N.A.							
Consumer Price Index (2010=100) *2	78.0	95.0	95.5	98.6	99.6	100.0	102.0	102.5
Growth Rate (%) *3								
Real GDP	1.09	2.85	0.39	-1.94	-1.76	2.60	3.43	0.95
Population	2.88	2.25	1.95	1.72	1.65	1.56	1.48	1.41
Price								
Wholesale Price Index	N.A.							
Consumer Price Index	2.1	1.6	1.2	2.1	1.0	0.4	2.0	0.5

Source : \*1 : "World Development Indicators", World Bank  
 \*2 : "International Financial Statistics", International Monetary Fund

\*3 : Estimation from \*1, and \*2 by the Coordinating Agency

Note : N.A. means "not available"  
 : BND means Brunei Dollar, USD means United States Dollar  
 : PPP means Purchasing Power Parity

### **3.3 Canada**

## Energy Balance Table of Canada

	Coal	Coal Products	Crude Oil & NGL	Petroleum Products					Gas/Diesel Oil
				Total	Gasoline	Naphtha	Jet Fuel	Kerosene	
<b>2012</b>									
Indigenous Production	33,541	-	185,582	-	-	-	-	-	-
Import	5,403	223	36,541	12,722	3,145	25	1,573	197	776
Export	-20,513	-275	-128,180	-23,383	-6,514	-575	-320	-55	-8,239
International Marine Bunkers	-	-	-	-492	-	-	-	-	-23
International Aviation Bunkers	-	-	-	-1,004	-	-	-1,004	-	-
Stock Changes	80	-93	640	38	105	77	-62	-35	-84
<b>Total Primary Energy Supply</b>	<b>18,509</b>	<b>-146</b>	<b>94,583</b>	<b>-12,118</b>	<b>-3,265</b>	<b>-473</b>	<b>189</b>	<b>107</b>	<b>-7,570</b>
Transfers	-	-	-5,835	20,074	4,988	943	622	148	1,502
<b>Total Transformation Sector</b>	<b>-16,898</b>	<b>1,100</b>	<b>-93,807</b>	<b>95,420</b>	<b>33,074</b>	<b>3,804</b>	<b>3,851</b>	<b>475</b>	<b>32,238</b>
Main Activity Producer	-14,393	-	-	-1,224	-	-	-	-	-130
Autoproducers	-1	-	-	-533	-	-	-	-	-112
Gas Processing	-	-	803	-	-	-	-	-	-
Petroleum Refineries	-	-	-96,373	97,177	33,074	3,804	3,851	475	32,480
Coal Transformation	-2,505	1,100	-	-	-	-	-	-	-
Other Transformation	-	-	1,763	-	-	-	-	-	-
Loss & Own Use	-	-	-	-8,276	-1	-31	-59	-1	-37
Discrepancy	-199	247	5,059	1,228	533	-3	-1,160	-441	2,615
<b>Total Final Energy Consumption</b>	<b>1,412</b>	<b>1,202</b>	<b>-</b>	<b>96,327</b>	<b>35,330</b>	<b>4,239</b>	<b>3,443</b>	<b>287</b>	<b>28,747</b>
<b>Industry Sector</b>	<b>1,396</b>	<b>1,202</b>	<b>-</b>	<b>7,519</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>56</b>	<b>4,790</b>
Iron and Steel	-	1,065	-	-	-	-	-	-	-
Chemical & Petrochemical	-	-	-	-	-	-	-	-	-
Non-metallic Minerals	374	-	-	429	-	-	-	-	-
Other Industries	1,022	137	-	7,090	-	-	-	56	4,790
<b>Transport Sector</b>	-	-	-	57,961	35,330	-	3,443	-	17,944
Domestic Air Transport	-	-	-	3,498	55	-	3,443	-	-
Road	-	-	-	50,602	35,275	-	-	-	15,036
Rail	-	-	-	2,207	-	-	-	-	2,207
Inland Waterways	-	-	-	1,654	-	-	-	-	701
Pipeline Transport	-	-	-	-	-	-	-	-	-
Non-specified Transport	-	-	-	-	-	-	-	-	-
<b>Other Sector</b>	<b>16</b>	<b>-</b>	<b>-</b>	<b>8,343</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>230</b>	<b>6,013</b>
Residential	16	-	-	2,390	-	-	-	111	1,816
Commerce and Public Services	-	-	-	2,842	-	-	-	118	1,528
Agriculture	-	-	-	3,111	-	-	-	1	2,669
Non-specified Others	-	-	-	-	-	-	-	-	-
<b>Non-energy</b>	-	-	-	22,504	-	4,239	-	-	-
<b>2011</b>									
Indigenous Production	33,658	-	172,314	-	-	-	-	-	-
Import	6,293	264	34,512	15,141	4,378	64	3,103	354	1,706
Export	-19,844	-231	-119,864	-19,065	-5,975	-468	-263	-5	-6,446
International Marine Bunkers	-	-	-	-499	-	-	-	-	-27
International Aviation Bunkers	-	-	-	-970	-	-	-970	-	-
Stock Changes	97	-30	885	-206	19	-43	-10	25	-193
<b>Total Primary Energy Supply</b>	<b>20,203</b>	<b>3</b>	<b>87,847</b>	<b>-5,599</b>	<b>-1,577</b>	<b>-446</b>	<b>1,860</b>	<b>373</b>	<b>-4,960</b>
Transfers	-	-	-4,552	9,975	1,338	303	-153	-206	904
<b>Total Transformation Sector</b>	<b>-20,140</b>	<b>1,077</b>	<b>-91,084</b>	<b>94,745</b>	<b>31,947</b>	<b>3,618</b>	<b>3,467</b>	<b>510</b>	<b>30,804</b>
Main Activity Producer	-17,628	-	-	-1,250	-	-	-	-	-132
Autoproducers	-1	-	-	-522	-	-	-	-	-86
Gas Processing	-	-	802	-	-	-	-	-	-
Petroleum Refineries	-	-	-93,522	96,516	31,947	3,618	3,467	510	31,022
Coal Transformation	-2,511	1,077	-	-	-	-	-	-	-
Other Transformation	-	-	1,637	-	-	-	-	-	-
Loss & Own Use	-4	-	-	-8,557	-7	-44	-	-	-26
Discrepancy	1,350	153	7,789	3,138	2,504	55	-1,609	-401	2,983
<b>Total Final Energy Consumption</b>	<b>1,409</b>	<b>1,233</b>	<b>-</b>	<b>93,701</b>	<b>34,204</b>	<b>3,486</b>	<b>3,565</b>	<b>277</b>	<b>29,704</b>
<b>Industry Sector</b>	<b>1,391</b>	<b>1,233</b>	<b>-</b>	<b>7,313</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>66</b>	<b>4,882</b>
Iron and Steel	-	1,096	-	-	-	-	-	-	-
Chemical & Petrochemical	-	-	-	-	-	-	-	-	-
Non-metallic Minerals	569	-	-	405	-	-	-	-	1
Other Industries	822	137	-	6,907	-	-	-	66	4,881
<b>Transport Sector</b>	-	-	-	57,038	34,204	-	3,565	-	18,154
Domestic Air Transport	-	-	-	3,614	49	-	3,565	-	-
Road	-	-	-	49,565	34,154	-	-	-	15,140
Rail	-	-	-	2,189	-	-	-	-	2,189
Inland Waterways	-	-	-	1,671	-	-	-	-	825
Pipeline Transport	-	-	-	-	-	-	-	-	-
Non-specified Transport	-	-	-	-	-	-	-	-	-
<b>Other Sector</b>	<b>19</b>	<b>-</b>	<b>-</b>	<b>8,779</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>211</b>	<b>6,668</b>
Residential	19	-	-	2,652	-	-	-	101	2,145
Commerce and Public Services	-	-	-	2,890	-	-	-	110	1,726
Agriculture	-	-	-	3,236	-	-	-	-	2,797
Non-specified Others	-	-	-	-	-	-	-	-	-
<b>Non-energy</b>	-	-	-	20,572	-	3,486	-	-	-

unit: ktoe

Fuel Oil	LPG	Refinery Gas	Ethane	Other Products	Gas	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
-	-	-	-	-	129,952	32,724	24,721	1,004	12,199	-	-	419,723
631	703	-	-	5,673	26,077	-	-	-	883	936	-	82,785
-3,783	-572	-	-	-3,326	-73,524	-	-	-	-679	-4,976	-	-251,532
-469	-	-	-	-	-	-	-	-	-	-	-	-492
-	-	-	-	-	-	-	-	-	-	-	-	-1,004
18	-122	-	-	141	1,003	-	-	-	-	-	-	1,668
-3,603	9	-	-	2,488	83,507	32,724	24,721	1,004	12,403	-4,040	-	251,148
262	4,014	-	5,605	1,991	-	-	-	-	-	-	-	14,239
6,528	1,749	4,265	-	9,436	-17,523	-32,724	-24,721	-1,004	-3,941	54,553	564	-38,982
-406	-	-	-	-688	-11,113	-29,969	-24,721	-1,003	-10	49,641	513	-32,279
-71	-	-314	-	-37	-3,197	-2,755	-	-0	-2,168	4,912	50	-3,692
-	-	-	-	-	-2,312	-	-	-	-	-	-	-1,509
7,006	1,749	4,579	-	10,160	-	-	-	-	-	-	-	805
-	-	-	-	-	-	-	-	-	-	-	-	-1,405
-	-	-	-	-	-902	-	-	-	-1,763	-	-	-901
-213	-113	-4,579	-	-3,243	-14,312	-	-	-	-1	-7,357	-	-29,947
-713	306	314	73	-295	4,577	-	-	0	-0	9	27	10,948
2,261	5,965	-	5,678	10,377	56,250	-	-	-	8,461	43,165	591	207,406
782	1,451	-	-	440	25,926	-	-	-	5,921	16,127	590	58,682
-	-	-	-	-	1,725	-	-	-	1	780	-	3,570
-	-	-	-	-	3,809	-	-	-	-	1,605	-	5,414
-	-	-	-	429	187	-	-	-	126	173	-	1,288
782	1,451	-	-	11	20,205	-	-	-	5,794	13,570	590	48,409
953	291	-	-	-	2,478	-	-	-	-	361	-	60,800
-	-	-	-	-	-	-	-	-	-	-	-	3,498
-	291	-	-	-	38	-	-	-	-	92	-	50,732
-	-	-	-	-	-	-	-	-	-	-	-	2,207
953	-	-	-	-	-	-	-	-	-	-	-	1,654
-	-	-	-	-	2,441	-	-	-	-	269	-	2,709
-	-	-	-	-	-	-	-	-	-	-	-	-
527	1,573	-	-	-	24,378	-	-	-	2,540	26,677	0	61,954
46	417	-	-	-	13,589	-	-	-	2,524	13,161	-	31,679
253	943	-	-	-	9,982	-	-	-	15	12,729	0	25,569
229	212	-	-	-	807	-	-	-	0	788	-	4,706
-	-	-	-	-	-	-	-	-	-	-	-	-
-	2,650	-	5,678	9,937	3,467	-	-	-	-	-	-	25,971
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	132,394	32,309	24,389	901	12,340	-	-	408,305
442	428	-	-	4,665	25,969	-	-	-	741	1,287	-	84,207
-2,815	-473	-	-	-2,620	-76,858	-	-	-	-571	-4,430	-	-240,864
-471	-	-	-	-	-	-	-	-	-	-	-	-499
-	-	-	-	-	-	-	-	-	-	-	-	-970
61	-34	-	-	-32	2,092	-	-	-	-	-	-	2,838
-2,784	-79	-	-	2,013	83,597	32,309	24,389	901	12,510	-3,144	-	253,016
544	3,012	-	6,030	-1,796	-	-	-	-	-	-	-	5,423
5,838	1,950	5,079	-	11,533	-16,401	-32,309	-24,389	-901	-3,817	54,858	561	-37,799
-442	-	-	-	-676	-10,439	-29,685	-24,389	-901	-8	50,098	511	-33,690
-85	-	-312	-	-37	-3,172	-2,624	-	-0	-2,173	4,760	50	-3,681
-	-	-	-	-	-1,941	-	-	-	-	-	-	-1,139
6,365	1,950	5,391	-	12,246	-	-	-	-	-	-	-	2,994
-	-	-	-	-	-	-	-	-	-	-	-	-1,434
-	-	-	-	-	-849	-	-	-	-1,637	-	-	-849
-249	-67	-5,391	-	-2,772	-13,292	-	-	-	-1	-7,287	-	-29,141
-1,203	570	312	-65	-10	2,257	-	-	-	-0	9	25	14,722
2,147	5,386	-	5,966	8,968	56,162	-	-	-	8,692	44,437	587	206,221
780	1,167	-	-	418	24,108	-	-	-	6,209	17,510	586	58,349
-	-	-	-	-	1,694	-	-	-	3	765	-	3,557
-	-	-	-	-	4,035	-	-	-	-	1,683	235	5,953
-	-	-	-	404	46	-	-	-	121	163	-	1,304
780	1,167	-	-	14	18,333	-	-	-	6,085	14,899	351	47,535
846	270	-	-	-	2,437	-	-	-	-	331	-	59,806
-	-	-	-	-	-	-	-	-	-	-	-	3,614
-	270	-	-	-	35	-	-	-	-	63	-	49,662
-	-	-	-	-	-	-	-	-	-	-	-	2,189
846	-	-	-	-	-	-	-	-	-	-	-	1,671
-	-	-	-	-	2,402	-	-	-	-	269	-	2,670
-	-	-	-	-	-	-	-	-	-	-	-	-
521	1,378	-	-	-	26,215	-	-	-	2,483	26,596	0	64,091
36	369	-	-	-	14,665	-	-	-	2,473	13,161	-	32,970
233	821	-	-	-	10,826	-	-	-	10	12,623	0	26,349
252	188	-	-	-	724	-	-	-	0	812	-	4,773
-	-	-	-	-	-	-	-	-	-	-	-	-
-	2,571	-	5,966	8,550	3,402	-	-	-	-	-	-	23,974

**Major Energy Indicators of Canada**

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	1990	2000	2005	2008	2009	2010	2011	2012
<b>Total</b>								
Primary Energy Supply	208,198	252,200	270,760	264,394	249,258	251,335	253,016	251,148
Indigenous Production	273,360	373,478	402,381	405,479	390,151	395,597	408,305	419,723
Import	46,404	72,055	82,651	85,701	77,815	78,718	84,207	82,785
Export	-105,727	-199,764	-216,318	-232,909	-222,621	-228,530	-240,864	-251,532
Final Energy Consumption	158,792	188,746	202,393	205,592	195,079	199,637	206,221	207,406
Industry	47,277	54,688	59,719	59,130	55,463	57,140	58,349	58,682
Transport	43,122	52,142	56,507	58,452	56,811	59,159	59,806	60,800
Residential	28,722	30,876	32,165	33,860	32,109	30,810	32,970	31,679
Commerce & Public Services	21,727	27,109	27,188	27,025	25,698	25,150	26,349	25,569
Others	17,944	23,931	26,813	27,125	24,998	27,378	28,747	30,677
<b>Coal, Coal Products</b>								
Primary Energy Supply	24,276	31,661	27,223	28,302	21,904	22,229	20,205	18,364
Indigenous Production	37,927	34,407	32,078	34,194	31,707	33,797	33,658	33,541
Import	9,547	15,048	12,347	11,881	7,310	7,502	6,557	5,625
Export	-21,442	-19,269	-17,042	-18,968	-16,942	-19,735	-20,076	-20,789
Transformation Sector	-21,399	-28,643	-24,515	-24,901	-19,967	-20,498	-19,062	-15,798
Power Generation	-19,972	-26,964	-22,991	-23,050	-18,699	-18,951	-17,629	-14,393
Final Energy Consumption	2,924	2,939	3,863	3,528	2,979	2,977	2,642	2,613
Industry	2,872	2,902	3,817	3,496	2,951	2,943	2,624	2,598
Transport	-	-	-	-	-	-	-	-
Residential	47	36	46	31	28	34	19	16
Commerce & Public Services	5	1	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-
<b>Crude Oil</b>								
Primary Energy Supply	82,796	96,681	105,732	97,895	94,864	95,736	87,847	94,583
Indigenous Production	94,146	128,427	147,298	156,887	155,159	162,695	172,314	185,582
Import	27,133	46,941	46,714	42,552	40,801	39,349	34,512	36,541
Export	-37,811	-78,446	-86,048	-101,839	-101,409	-104,807	-119,864	-128,180
Transformation Sector	-85,547	-94,843	-101,043	-97,608	-94,662	-96,047	-91,084	-93,807
Petroleum Refineries	-85,888	-95,419	-101,780	-98,884	-96,035	-97,999	-93,522	-96,373
<b>Petroleum Products</b>								
Primary Energy Supply	-6,283	-8,855	-9,494	-7,619	-9,802	-9,697	-5,599	-12,118
Import	7,673	7,362	14,003	15,786	11,697	11,041	15,141	12,722
Export	-11,857	-14,895	-21,819	-21,867	-20,705	-20,467	-19,065	-23,383
Transformation Sector	82,854	93,296	101,312	99,207	95,948	98,992	94,745	95,420
Power Generation	-3,796	-3,148	-3,734	-2,414	-2,607	-2,038	-1,771	-1,758
Petroleum Refineries	86,651	96,444	105,046	101,622	98,555	101,030	96,516	97,177
Final Energy Consumption	68,787	80,595	89,561	91,661	86,775	91,816	93,701	96,327
Industry	6,787	6,457	7,630	7,757	6,947	7,194	7,313	7,519
Transport	39,944	46,995	51,842	54,896	53,757	56,371	57,038	57,961
Residential	4,659	3,249	3,114	2,939	2,826	2,698	2,652	2,390
Commerce & Public Services	4,077	5,463	4,773	2,940	2,550	2,536	2,890	2,842
Others	13,321	18,431	22,202	23,130	20,694	23,018	23,808	25,615
<b>Natural Gas</b>								
Primary Energy Supply	54,743	74,258	80,689	78,575	77,541	78,700	83,597	83,507
Indigenous Production	88,579	148,361	154,143	144,401	135,473	132,426	132,394	129,952
Import	521	1,329	7,833	13,047	16,181	18,770	25,969	26,077
Export	-33,044	-82,682	-87,402	-85,044	-78,678	-79,151	-76,858	-73,524
Transformation Sector	-2,447	-8,812	-11,081	-12,849	-12,830	-13,965	-16,401	-17,523
Power Generation	-1,868	-7,356	-9,345	-10,556	-10,282	-11,232	-13,611	-14,309
Final Energy Consumption	43,313	53,426	51,185	53,000	51,898	52,168	56,162	56,250
Industry	16,855	19,319	18,405	21,091	20,559	22,643	24,108	25,926
Transport	2,897	4,758	4,299	3,212	2,722	2,464	2,437	2,478
Residential	11,359	13,861	13,899	14,870	14,196	13,224	14,665	13,589
Commerce & Public Services	8,322	10,816	10,853	10,646	10,935	10,285	10,826	9,982
Others	3,880	4,673	3,728	3,181	3,486	3,551	4,126	4,274
<b>Electricity</b>								
Power Generation	41,447	52,081	53,744	54,638	52,640	51,833	54,858	54,553
Thermal	8,610	12,905	12,275	11,810	10,687	10,839	11,338	10,407
Hydro	25,519	30,832	31,125	32,461	31,704	30,216	32,309	32,724
Nuclear	6,338	6,324	7,995	8,341	7,826	7,875	8,130	8,240
Others	980	2,020	2,348	2,027	2,423	2,903	3,081	3,182
Final Energy Consumption	35,952	41,409	45,842	46,837	43,294	43,512	44,437	43,165
Industry	14,443	17,485	20,109	18,572	17,220	17,435	17,510	16,127
Transport	281	389	366	344	332	324	331	361
Residential	11,165	11,888	12,985	13,764	12,754	12,625	13,161	13,161
Commerce & Public Services	9,319	10,821	11,501	13,344	12,171	12,320	12,623	12,729
Others	743	826	881	812	818	808	812	788

### Major Economic Indicators of Canada

	1990	2000	2005	2008	2009	2010	2011	2012
Population (Millions) *1	27.79	30.77	32.31	33.25	33.63	34.01	34.34	34.75
Gross Domestic Product *3								
Real Term (Billions of 2010 Price and 2010 USD)	1,008.20	1,336.59	1,515.30	1,604.90	1,561.39	1,614.07	1,654.88	1,683.16
Real Term (Billions of 2010 Price and 2010 PPP)	849.04	1,125.59	1,276.09	1,351.55	1,314.90	1,359.27	1,393.64	1,417.45
Nominal (Billions of Current USD)	592.03	739.45	1,164.18	1,542.56	1,370.84	1,614.07	1,778.63	1,821.45
GDP per Capita *3								
Real Term (2010 Price and 2010 USD)	36,278	43,438	46,896	48,274	46,430	47,465	48,187	48,430
Real Term (2010 Price and 2010 PPP)	30,551	36,581	39,493	40,653	39,101	39,972	40,580	40,785
Nominal (Current USD)	21,303	24,032	36,029	46,399	40,764	47,465	51,791	52,409
Nominal GDP & its Components (Billions of Current CAD) *1								
Gross Domestic Product	690.76	1,098.17	1,410.71	1,645.97	1,567.01	1,662.76	1,760.01	1,819.97
Household Final Consumption Expenditure, etc.	385.49	599.35	763.52	891.15	896.70	939.92	980.41	1,012.92
General Government Final Consumption Expenditure	155.88	208.89	270.32	330.98	352.05	366.35	381.77	394.50
Gross Fixed Capital Formation	150.96	216.78	310.60	386.53	348.30	387.98	412.04	439.27
Stock Change	-2.78	11.23	11.29	8.84	-7.03	0.13	7.66	9.49
Exports of Goods and Services	173.75	487.67	521.40	567.34	445.69	483.21	540.66	546.62
Imports of Goods and Services	172.52	425.74	466.41	538.87	468.70	514.82	562.53	582.83
Real GDP & its Components (Billions of 2000 CAD) *1								
Gross Domestic Product	938.61	1,244.33	1,410.71	1,494.13	1,453.62	1,502.66	1,540.65	1,566.98
Household Final Consumption Expenditure, etc.	516.98	654.12	763.52	855.03	856.67	889.54	910.01	927.98
General Government Final Consumption Expenditure	225.87	240.28	270.32	299.55	309.46	317.86	320.35	323.77
Gross Fixed Capital Formation	181.02	235.77	310.60	346.13	306.37	341.45	355.80	371.14
Stock Change	-2.77	11.88	11.29	7.48	-4.75	-0.42	6.93	6.36
Exports of Goods and Services	221.89	501.04	521.40	507.85	441.42	471.73	493.94	501.31
Imports of Goods and Services	200.70	397.01	466.41	523.65	458.89	521.40	551.09	568.26
Sectional Shares of Real GDP (%) *1								
Agriculture, Fishery and Forest	2.2	1.8	1.7	1.7	1.6	1.6	N.A.	N.A.
Industry	31.2	31.5	29.4	27.1	24.9	25.6	N.A.	N.A.
Services, etc.	63.4	64.1	66.3	68.5	70.7	69.9	N.A.	N.A.
Industrial Production Index (2010=100) *2	60.0	82.7	93.7	99.5	96.6	100.0	102.7	104.6
External Trade (Billions of Current USD) *1								
Exports, f.o.b.	127.629	276.635	360.475	456.471	316.094	387.481	452.131	454.840
Imports, c.i.f.	123.244	244.786	322.411	419.011	329.907	402.690	463.410	474.900
Balance of Payments (Billions of Current USD) *2								
Trade Balance	N.A.	N.A.	50.572	42.582	-6.158	-9.367	0.585	-12.028
Current Account	N.A.	N.A.	21.910	3.470	-40.341	-56.626	-49.083	-62.256
Overall Balance	N.A.	N.A.	2.650	5.905	10.796	2.055	14.951	3.278
Foreign Exchange Rate (CAD/USD) *1	1.1668	1.4851	1.2118	1.0670	1.1431	1.0302	0.9895	0.9992
Purchasing Power Parity (CAD/International Dollar) *1	1.2509	1.2306	1.2136	1.2344	1.2027	1.2233	1.2399	1.2491
Price Indices								
GDP Deflator (2005=100) *3	73.6	88.3	100.0	110.2	107.8	110.7	114.2	116.1
Industry Selling Price Index (2010=100) *2	71.2	90.0	94.2	102.1	98.5	100.0	106.9	108.1
Consumer Price Index (2010=100) *2	67.3	81.9	91.9	98.0	98.3	100.0	102.9	104.5
Growth Rate (%) *3								
Real GDP	0.13	5.12	3.16	1.18	-2.71	3.37	2.53	1.71
Population	1.50	0.89	0.99	1.09	1.15	1.12	0.99	1.20
Price								
Industry Selling Price Index	0.3	4.3	1.6	4.3	-3.5	1.5	6.9	1.1
Consumer Price Index	4.8	2.7	2.2	2.4	0.3	1.8	2.9	1.5

Source : \*1 : "World Development Indicators", World Bank

\*2 : "International Financial Statistics", International Monetary Fund

\*3 : Calculated from \*1 and \*2 by the Coordinating Agency

Note : N.A. means "not available"

: CAD means Canadian Dollar, USD means United States Dollar

: PPP means Purchasing Power Parity

**Energy Price of Canada in 2012****Currency Exchange Rate**

	Local currency / US Dollar	
Currency Exchange Rate		CND

**IMPORT PRICES****WHOLESALE PRICES****CONSUMER PRICES**

Unit		Amount	Unit		Amount	Unit		Amount
<b>Coal and Coal Products</b>			<b>Coal and Coal Products</b>			<b>Coal and Coal Products</b>		
Coking Coal			Coking Coal			Coking Coal		
Anthracite			Anthracite			Anthracite		
Other bituminous coal			Other bituminous coal			Other bituminous coal		
Sub-bituminous Coal			Sub-bituminous Coal			Sub-bituminous Coal		
Lignite			Lignite			Lignite		
Peat			Peat			Peat		
Patent Fuel			Patent Fuel			Patent Fuel		
Coke			Coke			Coke		
Coal Tar			Coal Tar			Coal Tar		
BKB/PB			BKB/PB			BKB/PB		
			Gas Works Gas			Gas Works Gas		
<b>Oil and Oil Products</b>			<b>Oil and Oil Products</b>			<b>Oil and Oil Products</b>		
Crude Oil	U.S. \$ /BBL	94.05	Crude Oil			Crude Oil		
Natural Gas Liquids			Natural Gas Liquids			Natural Gas Liquids		
Ethane			Ethane			Ethane		
LPG			LPG			LPG		
Naphtha			Naphtha			Naphtha		
Motor Gasoline			Motor Gasoline	CND Cents/l	80.61	Motor Gasoline	CND Cents/l	126.59
Aviation Gasoline			Aviation Gasoline			Aviation Gasoline		
Gasoline Type Jet Fuel			Gasoline Type Jet Fuel			Gasoline Type Jet Fuel		
Kerosene Type Jet Fuel			Kerosene Type Jet Fuel			Kerosene Type Jet Fuel		
Other Kerosene			Other Kerosene			Other Kerosene		
Gas/Diesel Oil			Gas/Diesel Oil	CND Cents/l	85.28	Gas/Diesel Oil	CND Cents/l	126.06
Fuel Oil			Fuel Oil	CND Cents/l	84.99	Fuel Oil		
White Spirit SBP			White Spirit SBP			White Spirit SBP		
Lubricants			Lubricants			Lubricants		
Bitumen			Bitumen			Bitumen		
Paraffin Waxes			Paraffin Waxes			Paraffin Waxes		
Petroleum Coke			Petroleum Coke			Petroleum Coke		
<b>Natural Gas</b>			<b>Natural Gas</b>			<b>Natural Gas</b>		
Natural Gas			Natural Gas			Natural Gas	CND Cents/l	34.34
Liquefied Natural Gas			Liquefied Natural Gas			Liquefied Natural Gas		
Compressed Natural Gas			Compressed Natural Gas			Compressed Natural Gas		
<b>Electricity</b>			<b>Electricity</b>			<b>Electricity</b>		
Electricity			Electricity			Industrial		
						Commercial		
						Residential		
						Others		
<b>Other Energy Products</b>			<b>Other Energy Products</b>			<b>Other Energy Products</b>		
Charcoal								

### **3.4 Chile**

## Energy Balance Table of Chile

	Coal	Coal Products	Crude Oil & NGL	Petroleum Products					Gas/Diesel Oil
				Total	Gasoline	Naphtha	Jet Fuel	Kerosene	
<b>2012</b>									
Indigenous Production	295	-	531	-	-	-	-	-	-
Import	5,912	38	8,850	7,730	628	76	480	-	4,980
Export	-	-	-	-874	-260	-	-	-	-415
International Marine Bunkers	-	-	-	-166	-	-	-	-	-9
International Aviation Bunkers	-	-	-	-712	-	-	-712	-	-
Stock Changes	-113	32	125	124	29	12	-23	31	-105
<b>Total Primary Energy Supply</b>	<b>6,094</b>	<b>69</b>	<b>9,507</b>	<b>6,102</b>	<b>397</b>	<b>88</b>	<b>-255</b>	<b>31</b>	<b>4,450</b>
Transfers	-	-	1,079	-1,040	-86	-153	-	-4	-176
<b>Total Transformation Sector</b>	<b>-6,128</b>	<b>190</b>	<b>-10,666</b>	<b>7,426</b>	<b>2,406</b>	<b>64</b>	<b>654</b>	<b>105</b>	<b>1,743</b>
Main Activity Producer	-5,671	-	-	-1,195	-	-	-	-	-745
Autoproducers	-	-	-	-613	-	-	-	-	-474
Gas Processing	-	-	-	-15	-	-	-	-	-
Petroleum Refineries	-	-	-10,677	9,260	2,406	64	654	105	2,961
Coal Transformation	-457	190	-	-	-	-	-	-	-
Other Transformation	-	-	11	-11	-	-	-	-	-
Loss & Own Use	-	-237	-	-331	-	-	-	-	-10
Discrepancy	212	-8	80	431	111	-	-126	-30	466
<b>Total Final Energy Consumption</b>	<b>178</b>	<b>14</b>	<b>-</b>	<b>12,589</b>	<b>2,829</b>	<b>-</b>	<b>274</b>	<b>101</b>	<b>6,473</b>
<b>Industry Sector</b>	<b>175</b>	<b>14</b>	<b>-</b>	<b>2,946</b>	<b>-</b>	<b>-</b>	<b>14</b>	<b>25</b>	<b>2,020</b>
Iron and Steel	-	-	-	1	-	-	-	-	1
Chemical & Petrochemical	-	-	-	-	-	-	-	-	-
Non-metallic Minerals	3	-	-	243	-	-	-	-	6
Other Industries	173	14	-	2,702	-	-	14	25	2,013
<b>Transport Sector</b>	-	-	-	7,391	2,828	-	222	-	4,004
Domestic Air Transport	-	-	-	243	20	-	222	-	1
Road	-	-	-	6,708	2,808	-	-	-	3,867
Rail	-	-	-	46	-	-	-	-	46
Inland Waterways	-	-	-	394	-	-	-	-	91
Pipeline Transport	-	-	-	-	-	-	-	-	-
Non-specified Transport	-	-	-	-	-	-	-	-	-
<b>Other Sector</b>	2	-	-	1,769	1	-	38	76	449
Residential	-	-	-	991	-	-	-	75	5
Commerce and Public Services	-	-	-	499	1	-	38	1	249
Agriculture	-	-	-	-	-	-	-	-	-
Non-specified Others	2	-	-	278	-	-	-	-	194
<b>Non-energy</b>	-	-	-	483	-	-	-	-	-
<b>2011</b>									
Indigenous Production	245	-	641	-	-	-	-	-	-
Import	5,432	23	9,269	7,371	714	61	214	-	4,617
Export	-	-	-	-633	-135	-	-	-	-282
International Marine Bunkers	-	-	-	-490	-	-	-	-	-18
International Aviation Bunkers	-	-	-	-442	-	-	-442	-	-
Stock Changes	-354	-	64	70	24	-	31	-30	53
<b>Total Primary Energy Supply</b>	<b>5,323</b>	<b>23</b>	<b>9,973</b>	<b>5,876</b>	<b>602</b>	<b>61</b>	<b>-197</b>	<b>-30</b>	<b>4,369</b>
Transfers	-	-	756	-737	-133	-125	-	-	-14
<b>Total Transformation Sector</b>	<b>-5,250</b>	<b>248</b>	<b>-10,918</b>	<b>7,571</b>	<b>2,353</b>	<b>63</b>	<b>601</b>	<b>82</b>	<b>2,303</b>
Main Activity Producer	-4,786	-	-	-1,304	-	-	-	-	-883
Autoproducers	-	-	-	-126	-	-	-	-	-90
Gas Processing	-	-	-	-89	-	-	-	-	-
Petroleum Refineries	-	-	-10,951	9,125	2,353	63	601	82	3,276
Coal Transformation	-464	248	-	-	-	-	-	-	-
Other Transformation	-	-	33	-35	-	-	-	-	-
Loss & Own Use	-	-150	-	-410	-	-	-	-	-1
Discrepancy	139	-9	188	444	-73	0	-95	72	91
<b>Total Final Energy Consumption</b>	<b>212</b>	<b>111</b>	<b>-</b>	<b>12,744</b>	<b>2,750</b>	<b>-</b>	<b>309</b>	<b>123</b>	<b>6,748</b>
<b>Industry Sector</b>	<b>210</b>	<b>111</b>	<b>-</b>	<b>3,235</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>12</b>	<b>2,140</b>
Iron and Steel	-	98	-	31	-	-	-	-	27
Chemical & Petrochemical	-	-	-	1	-	-	-	-	-
Non-metallic Minerals	1	-	-	248	-	-	-	-	9
Other Industries	209	14	-	2,955	-	-	-	12	2,104
<b>Transport Sector</b>	-	-	-	7,216	2,750	-	309	1	3,929
Domestic Air Transport	-	-	-	315	5	-	309	-	1
Road	-	-	-	6,544	2,745	-	-	1	3,784
Rail	-	-	-	46	-	-	-	-	46
Inland Waterways	-	-	-	310	-	-	-	-	98
Pipeline Transport	-	-	-	-	-	-	-	-	-
Non-specified Transport	-	-	-	-	-	-	-	-	-
<b>Other Sector</b>	3	-	-	2,016	-	-	-	111	679
Residential	-	-	-	1,000	-	-	-	110	3
Commerce and Public Services	-	-	-	654	-	-	-	1	459
Agriculture	-	-	-	-	-	-	-	-	-
Non-specified Others	3	-	-	362	-	-	-	-	217
<b>Non-energy</b>	-	-	-	277	-	-	-	-	-

unit: ktoe

Fuel Oil	LPG	Refinery Gas	Ethane	Other Products	Gas	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
-	-	-	-	-	1,030	1,734	-	54	9,410	-	-	13,053
358	853	-	-	354	3,293	-	-	-	10	-	-	25,831
-140	-2	-	-	-57	-	-	-	-	-	-	-	-874
-157	-	-	-	-	-	-	-	-	-	-	-	-166
-	-	-	-	-	-	-	-	-	-	-	-	-712
-2	19	-	-	164	-36	-	-	-	-52	-	-	80
60	870	-	-	460	4,286	1,734	-	54	9,367	-	-	37,213
-	-146	-	-	-476	-	-	-	-	-	-	-	39
933	644	260	-	617	-2,390	-1,734	-	-35	-4,005	5,999	-	-11,344
-72	-	-	-	-378	-2,336	-1,718	-	-33	-170	5,502	-	-5,622
-139	-	-	-	-	-74	-15	-	-2	-3,531	497	-	-3,738
-	-15	-	-	-	19	-	-	-	-	-	-	4
1,145	670	260	-	995	-	-	-	-	-	-	-	-1,417
-	-	-	-	-	-	-	-	-	-	-	-	-267
-	-11	-	-	-	-	-	-	-	-303	-	-	-304
-46	-14	-260	-	-1	-263	-	-	-	-	-698	-	-1,528
29	66	-	-	-85	-192	-	-	-	0	50	-	573
976	1,420	-	-	516	1,441	-	-	18	5,363	5,351	-	24,954
543	130	-	-	215	625	-	-	2	1,682	3,625	-	9,069
-	-	-	-	-	-	-	-	-	-	47	-	48
-	-	-	-	-	130	-	-	-	-	18	-	148
20	2	-	-	214	5	-	-	-	4	48	-	302
522	128	-	-	1	490	-	-	2	1,678	3,512	-	8,571
303	34	-	-	-	29	-	-	-	-	41	-	7,461
-	-	-	-	-	-	-	-	-	-	-	-	243
-	34	-	-	-	29	-	-	-	-	-	-	6,738
-	-	-	-	-	-	-	-	-	-	39	-	84
303	-	-	-	-	-	-	-	-	-	-	-	394
-	-	-	-	-	-	-	-	-	-	2	-	2
-	-	-	-	-	-	-	-	-	-	-	-	-
130	1,074	-	-	-	532	-	-	17	3,681	1,685	-	7,685
-	911	-	-	-	400	-	-	13	3,681	873	-	5,959
48	162	-	-	-	132	-	-	3	0	800	-	1,435
-	-	-	-	-	-	-	-	-	-	-	-	-
82	2	-	-	-	0	-	-	-	-	11	-	292
-	182	-	-	301	255	-	-	-	-	-	-	738
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	1,244	1,807	-	29	5,936	-	-	9,902
574	861	-	-	330	3,327	-	-	-	10	63	-	25,493
-63	-	-	-	-152	-	-	-	-	-	-	-	-633
-472	-	-	-	-	-	-	-	-	-	-	-	-490
-	-	-	-	-	-	-	-	-	-	-	-	-442
-19	7	-	-	6	-5	-	-	-	-	-	-	-226
19	868	-	-	184	4,566	1,807	-	29	5,945	63	-	33,605
-	-66	-	-	-399	-	-	-	-	-	-	-	20
1,071	271	289	-	538	-2,320	-1,807	-	-29	-927	5,651	-	-7,779
-83	-	-	-	-338	-2,353	-1,802	-	-29	-24	5,185	-	-5,112
-36	-	-	-	-	-55	-5	-	-1	-596	467	-	-315
-	-89	-	-	-	88	-	-	-	-	-	-	-2
1,189	395	289	-	876	-	-	-	-	-	-	-	-1,826
-	-	-	-	-	-	-	-	-	-	-	-	-216
-	-35	-	-	-	-	-	-	-	-307	-	-	-309
-57	-62	-289	-	-1	-428	-	-	-	-	-668	-	-1,657
27	276	-	-	146	152	-	-	-	0	-64	-	851
1,060	1,287	-	-	467	1,970	-	-	-	5,019	4,982	-	25,039
663	229	-	-	191	993	-	-	-	1,667	3,305	-	9,521
-	5	-	-	-	0	-	-	-	-	50	-	180
1	-	-	-	-	128	-	-	-	-	28	-	158
47	1	-	-	190	4	-	-	-	2	45	-	300
615	224	-	-	1	860	-	-	-	1,664	3,182	-	8,884
212	15	-	-	-	17	-	-	-	-	41	-	7,274
-	-	-	-	-	-	-	-	-	-	-	-	315
-	15	-	-	-	17	-	-	-	-	-	-	6,561
-	-	-	-	-	-	-	-	-	-	41	-	87
212	-	-	-	-	-	-	-	-	-	-	-	310
-	-	-	-	-	-	-	-	-	-	-	-	-
184	1,042	-	-	-	524	-	-	-	3,352	1,636	-	7,530
-	887	-	-	-	398	-	-	-	3,351	821	-	5,569
46	148	-	-	-	126	-	-	-	1	804	-	1,586
-	-	-	-	-	-	-	-	-	-	-	-	-
138	7	-	-	-	0	-	-	-	-	10	-	375
-	1	-	-	276	437	-	-	-	-	-	-	714

**Major Energy Indicators of Chile**

ktoe

	1990	2000	2005	2008	2009	2010	2011	2012
<b>Total</b>								
Primary Energy Supply	14,010	25,170	28,358	30,324	29,501	30,943	33,605	37,213
Indigenous Production	7,929	8,582	9,341	9,735	10,209	9,226	9,902	13,053
Import	7,237	18,633	22,230	23,347	21,845	22,903	25,493	25,831
Export	-211	-889	-1,748	-1,296	-1,122	-627	-633	-874
Final Energy Consumption	11,098	20,378	21,782	22,545	22,469	23,821	25,039	24,954
Industry	3,408	6,641	7,230	8,431	8,154	8,694	9,521	9,069
Transport	3,046	5,665	6,159	6,835	6,893	7,143	7,274	7,461
Residential	3,123	4,863	4,895	5,003	5,106	5,304	5,569	5,959
Commerce & Public Services	478	623	928	1,133	1,156	1,368	1,586	1,435
Others	1,043	2,587	2,569	1,143	1,160	1,313	1,089	1,030
<b>Coal, Coal Products</b>								
Primary Energy Supply	2,496	3,071	2,704	4,403	3,522	4,562	5,345	6,163
Indigenous Production	1,451	243	269	263	236	254	245	295
Import	1,132	2,943	2,442	4,160	3,335	3,809	5,454	5,949
Export	-	-27	-27	-9	-	-	-	-
Transformation Sector	-1,822	-2,336	-1,975	-3,538	-3,526	-3,997	-5,002	-5,938
Power Generation	-1,650	-2,081	-1,713	-3,307	-3,320	-3,856	-4,786	-5,671
Final Energy Consumption	579	595	531	463	210	389	324	192
Industry	522	583	515	448	200	385	321	190
Transport	-	-	-	-	-	-	-	-
Residential	15	-	1	-	-	-	-	-
Commerce & Public Services	3	3	3	4	3	-	-	-
Others	39	9	12	11	7	5	3	2
<b>Crude Oil</b>								
Primary Energy Supply	6,572	10,176	10,894	11,183	10,855	9,267	9,973	9,507
Indigenous Production	1,166	427	355	602	721	611	641	531
Import	5,561	9,975	10,539	10,396	10,221	8,659	9,269	8,850
Export	-	-	-	-	-	-	-	-
Transformation Sector	-6,279	-10,014	-11,241	-11,746	-11,915	-9,894	-10,918	-10,666
Petroleum Refineries	-6,279	-10,014	-11,241	-11,746	-11,915	-9,894	-10,951	-10,677
<b>Petroleum Products</b>								
Primary Energy Supply	-101	300	666	5,109	4,511	5,741	5,876	6,102
Import	544	1,941	3,788	8,032	6,944	7,340	7,371	7,730
Export	-211	-862	-1,721	-1,287	-1,122	-627	-633	-874
Transformation Sector	5,756	9,284	10,135	7,990	7,828	7,146	7,571	7,426
Power Generation	-476	-457	-941	-3,080	-2,442	-1,723	-1,429	-1,808
Petroleum Refineries	6,276	9,742	11,085	11,159	10,346	8,874	9,125	9,260
Final Energy Consumption	5,488	9,185	9,554	11,522	11,641	12,094	12,744	12,589
Industry	1,339	2,049	2,071	3,231	3,157	3,034	3,235	2,946
Transport	3,022	5,639	6,107	6,785	6,836	7,089	7,216	7,391
Residential	754	1,088	880	896	957	932	1,000	991
Commerce & Public Services	123	160	227	345	326	464	654	499
Others	250	250	269	265	366	575	639	761
<b>Natural Gas</b>								
Primary Energy Supply	1,142	5,208	6,798	2,108	2,787	4,469	4,566	4,286
Indigenous Production	1,410	1,598	1,606	1,453	1,547	1,547	1,244	1,030
Import	-	3,672	5,275	655	1,225	3,007	3,327	3,293
Export	-	-	-	-	-	-	-	-
Transformation Sector	-13	-1,661	-2,724	-463	-686	-1,751	-2,320	-2,390
Power Generation	-63	-1,653	-2,709	-469	-756	-1,753	-2,408	-2,409
Final Energy Consumption	950	3,330	3,530	1,422	1,467	2,371	1,970	1,441
Industry	3	671	776	64	152	1,101	993	625
Transport	6	8	31	13	20	18	17	29
Residential	172	267	357	366	379	397	398	400
Commerce & Public Services	28	71	89	127	143	128	126	132
Others	742	2,314	2,277	852	773	726	437	255
<b>Electricity</b>								
Power Generation	1,580	3,447	4,514	5,135	5,222	5,197	5,651	5,999
Thermal	719	1,523	1,693	2,536	2,307	2,934	3,196	529
Hydro	768	1,592	2,278	2,081	2,175	1,868	1,807	1,734
Nuclear	-	-	-	-	-	-	-	-
Others	93	331	543	518	739	396	649	3,736
Final Energy Consumption	1,332	3,161	4,155	4,602	4,647	4,707	4,982	5,351
Industry	873	2,209	2,801	3,140	3,147	3,083	3,305	3,625
Transport	18	19	22	37	36	37	41	41
Residential	372	532	712	752	765	805	821	873
Commerce & Public Services	60	388	609	657	684	775	804	800
Others	8	14	11	16	14	7	10	11

### Major Economic Indicators of Chile

	1990	2000	2005	2008	2009	2010	2011	2012
Population (Millions) *1	13.21	15.45	16.34	16.83	16.99	17.15	17.31	17.46
Gross Domestic Product *3								
Real Term (Billions of 2010 Price and 2010 USD)	80.23	149.17	183.28	207.86	205.70	217.56	230.26	242.65
Real Term (Billions of 2010 Price and 2010 PPP)	115.34	214.44	263.47	298.80	295.70	312.74	331.00	348.82
Nominal (Billions of Current USD)	31.56	79.31	124.40	179.63	171.96	217.56	251.00	266.41
GDP per Capita *3								
Real Term (2010 Price and 2010 USD)	6,072	9,652	11,218	12,349	12,106	12,685	13,303	13,894
Real Term (2010 Price and 2010 PPP)	8,728	13,875	16,127	17,753	17,403	18,235	19,124	19,973
Nominal (Current USD)	2,388	5,132	7,615	10,672	10,120	12,685	14,502	15,254
Nominal GDP & its Components (Billions of Current CLP) *1								
Gross Domestic Product	9,622.3	42,797.0	69,637.4	93,847.9	96,443.8	111,007.9	121,402.8	129,600.8
Household Final Consumption Expenditure, etc.	5,906.8	27,808.4	41,396.9	57,081.9	57,357.8	65,522.8	74,091.7	81,327.3
General Government Final Consumption Expenditure	961.7	4,953.4	7,283.0	10,553.3	12,219.9	13,645.2	14,690.6	15,679.5
Gross Fixed Capital Formation	2,278.7	8,663.4	14,794.3	23,178.5	21,026.6	23,406.7	27,132.0	31,093.3
Stock Change	144.4	1,068.4	1,429.6	1,183.5	-1,464.6	1,441.3	1,652.6	1,429.4
Exports of Goods and Services	3,270.2	12,534.0	26,728.5	38,953.2	35,849.0	42,246.0	46,162.8	44,374.9
Imports of Goods and Services	2,939.6	12,230.5	21,995.0	37,102.5	28,545.0	35,254.1	42,326.9	44,303.5
Real GDP & its Components (Billions of 1986 CLP) *1								
Gross Domestic Product	36,225.7	67,351.0	82,752.5	93,847.9	92,875.3	98,227.6	103,963.1	109,558.1
Household Final Consumption Expenditure, etc.	19,145.9	39,461.6	48,626.1	57,081.9	56,633.3	62,419.3	69,576.4	73,577.5
General Government Final Consumption Expenditure	5,286.4	7,547.5	9,214.0	10,553.3	11,522.5	12,049.3	12,346.2	12,798.2
Gross Fixed Capital Formation	5,382.8	11,254.3	17,170.3	23,178.5	20,375.3	22,862.3	26,164.5	29,349.8
Stock Change	223.2	823.8	433.3	1,183.5	-1,733.0	2,001.5	996.6	749.0
Exports of Goods and Services	10,057.8	24,375.8	33,417.6	38,953.2	37,180.9	38,045.1	40,143.8	40,598.3
Imports of Goods and Services	5,851.6	16,112.1	26,108.8	37,102.5	31,103.7	39,149.9	45,264.4	47,514.8
Sectional Shares of Real GDP (%) *1								
Agriculture, Fishery and Forest	4.4	3.3	3.3	3.3	3.2	3.0	3.2	3.0
Industry	43.1	31.1	38.9	35.2	34.9	33.9	32.9	32.7
Services, etc.	50.5	42.1	50.4	53.0	53.6	54.3	54.9	55.1
Manufacturing Production Index (2010=100) *2	N.A.	79.2	99.0	106.7	99.5	100.0	105.4	113.4
External Trade (Billions of Current USD) *1								
Exports, f.o.b	8.372	19.210	41.267	64.510	55.463	70.897	81.411	78.813
Imports, c.i.f.	7.742	18.507	32.735	62.787	42.806	59.388	74.908	79.278
Balance of Payments (Billions of Current USD) *2								
Trade Balance	N.A.	N.A.	10.837	8.596	15.360	15.737	11.040	2.508
Current Account	N.A.	N.A.	1.449	-3.307	3.518	3.581	-3.070	-9.083
Overall Balance	N.A.	N.A.	3.040	5.294	1.003	3.879	14.770	-0.031
Foreign Exchange Rate (CLP/USD) *1	304.9033	539.5875	559.7675	522.4610	560.8599	510.2492	483.6675	486.4713
Purchasing Power Parity (CLP/International Dollar) *1	165.9690	286.4356	333.6900	346.1920	357.7398	354.9483	348.0168	352.6171
Price Indices								
GDP Deflator (2008=100) *3	26.6	63.5	84.2	100.0	103.8	113.0	116.8	118.3
Industry Selling Price Index (2010=100) *2	26.2	57.7	76.5	101.8	102.1	100.0	105.9	N.A.
Consumer Price Index (2010=100) *2	N.A.	N.A.	N.A.	N.A.	98.6	100.0	103.3	106.4
Growth Rate (%) *3								
Real GDP	3.70	4.50	5.56	3.29	-1.04	5.76	5.84	5.38
Population	1.79	1.24	1.05	0.97	0.95	0.94	0.92	0.90
Price								
Home & Import Goods Price Index (2000=100)	21.8	11.4	5.4	16.7	0.3	-2.0	5.9	N.A.
Consumer Price Index	N.A.	N.A.	N.A.	N.A.	N.A.	1.4	N.A.	N.A.

Source : \*1 : "World Development Indicators", World Bank

\*2 : "International Financial Statistics", International Monetary Fund

\*3 : Calculated from \*1 and \*2 by the Coordinating Agency

Note : N.A. means "not available"  
: CLP means Chilean Peso, USD means United States Dollar  
: PPP means Purchasing Power Parity

**Energy Price of Chile in 2012****Currency Exchange Rate**

Currency Exchange Rate	Local currency / US Dollar	486.00
Local Currency Unit		CHP

**IMPORT PRICES**

	Unit	Amount
--	------	--------

**Coal and Coal Products**

Coking Coal	USD/ton	222.36
Anthracite		
Other bituminous coal	USD/ton	96.22
Sub-bituminous Coal		
Lignite		
Peat		
Patent Fuel		
Coke		
Coal Tar		
BKB/PB		

**Oil and Oil Products**

Crude Oil	USD/m3	647.92
Natural Gas Liquids		
Ethane		
LPG		
Naphtha		
Motor Gasoline		
Aviation Gasoline		
Gasoline Type Jet Fuel		
Kerosene Type Jet Fuel		
Other Kerosene		
Gas/Diesel Oil		
Fuel Oil		
White Spirit SPP		
Lubricants		
Bitumen		
Paraffin Waxes		
Petroleum Coke		

**Natural Gas**

Natural Gas		
Liquefied Natural Gas		
Compressed Natural Gas		

**Electricity**

Electricity		

**Other Energy Products**

Charcoal		

**WHOLESALE PRICES**

	Unit	Amount
--	------	--------

**Coal and Coal Products**

Coking Coal		
Anthracite		
Other bituminous coal		
Sub-bituminous Coal		
Lignite		
Peat		
Patent Fuel		
Coke		
Coal Tar		
BKB/PB		
Gas Works Gas		

**Oil and Oil Products**

Crude Oil		
Natural Gas Liquids		
Ethane		
LPG		
Naphtha		
Motor Gasoline		
Aviation Gasoline		
Gasoline Type Jet Fuel		
Kerosene Type Jet Fuel		
Other Kerosene		
Gas/Diesel Oil		
Fuel Oil		
White Spirit SPP		
Lubricants		
Bitumen		
Paraffin Waxes		
Petroleum Coke		

**Natural Gas**

Natural Gas		
Liquefied Natural Gas		
Compressed Natural Gas		

**Electricity**

Electricity		

**CONSUMER PRICES**

	Unit	Amount
--	------	--------

**Coal and Coal Products**

Coking Coal		
Anthracite		
Other bituminous coal		
Sub-bituminous Coal		
Lignite		
Peat		
Patent Fuel		
Coke		
Coal Tar		
BKB/PB		
Gas Works Gas		

**Oil and Oil Products**

	Unit	Amount
--	------	--------

**Crude Oil**

Crude Oil		
Natural Gas Liquids		
Ethane		
LPG	CHP/liter	565.14
Naphtha		
Motor Gasoline	CHP/liter	786.11
Aviation Gasoline		
Gasoline Type Jet Fuel		
Kerosene Type Jet Fuel		
Other Kerosene	CHP/liter	609.35
Gas/Diesel Oil	CHP/liter	606.73
Fuel Oil		
White Spirit SBP		
Lubricants		
Bitumen		
Paraffin Waxes		
Petroleum Coke		

**Natural Gas**

	Unit	Amount
--	------	--------

**Natural Gas**

Natural Gas	CHP/MWh	60,753
Liquefied Natural Gas		
Compressed Natural Gas		

**Electricity**

	Unit	Amount
--	------	--------

**Electricity**

Industrial	CHP/MWh	61,573
Commercial	CHP/MWh	95,068
Residential	CHP/MWh	90,093
Others		

**Other Energy Products**

	Unit	Amount
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## 3.5 China

### Energy Balance Table of People's Republic of China

	Coal	Coal Products	Crude Oil & NGL	Petroleum Products					Gas/Diesel Oil
				Total	Gasoline	Naphtha	Jet Fuel	Kerosene	
<b>2012</b>									
Indigenous Production	1,869,264	-	207,478	-	-	-	-	-	-
Import	145,914	52	271,027	50,028	5	2,835	5,014	2	927
Export	-5,193	-694	-2,432	-26,876	-2,929	-198	-6,305	-2	-1,891
International Marine Bunkers	-	-	-	-1,497	-	-	-869	-	-196
International Aviation Bunkers	-	-	-	-2,642	-	-	-2,642	-	-
Stock Changes	-65,233	1,487	-9,226	-11,335	-5,225	-552	-102	5	91
<b>Total Primary Energy Supply</b>	<b>1,944,753</b>	<b>845</b>	<b>466,847</b>	<b>7,678</b>	<b>-8,150</b>	<b>2,085</b>	<b>-4,903</b>	<b>6</b>	<b>-1,068</b>
<b>Transfers</b>									
<b>Total Transformation Sector</b>	<b>-1,304,958</b>	<b>105,509</b>	<b>-459,457</b>	<b>435,248</b>	<b>91,733</b>	<b>25,196</b>	<b>21,318</b>	<b>1,896</b>	<b>173,384</b>
Main Activity Producer	-848,015	-1,387	-109	-3,573	-	-	-	-	-363
Autoproducers	-138,795	-23,464	-14	-3,636	-1	-	-	-	-24
Gas Processing	-4,378	-371	-	-	-	-	-	-	-
Petroleum Refineries	-	-	-459,335	495,153	91,734	27,217	21,318	1,896	174,051
Coal Transformation	-313,770	130,731	-	-	-	-	-	-	-
Other Transformation	-	-	-	-52,696	-0	-2,021	-	-	-279
Loss & Own Use	-55,521	-6,217	-5,826	-4,836	-627	-	-	-23	-3,270
Discrepancy	-74,191	-12,756	-641	-1,731	-377	-38	-6	-155	71
<b>Total Final Energy Consumption</b>	<b>510,084</b>	<b>87,381</b>	<b>923</b>	<b>436,360</b>	<b>82,579</b>	<b>27,243</b>	<b>16,409</b>	<b>1,724</b>	<b>169,117</b>
Industry Sector	424,511	82,372	191	95,373	8,120	1,226	-	389	19,173
Iron and Steel	55,906	33,509	0	1,615	143	-	-	2	912
Chemical & Petrochemical	58,720	27,293	94	33,209	669	1,199	-	39	918
Non-metallic Minerals	117,049	6,528	78	16,557	342	0	-	48	2,659
Other Industries	192,836	15,042	20	43,992	6,967	26	-	299	14,685
Transport Sector	3,168	1	-	178,442	38,012	-	16,409	1	109,416
Domestic Air Transport	-	-	-	17,383	-	-	16,409	-	329
Road	-	-	-	115,099	32,485	-	-	-	82,030
Rail	3,102	0	-	4,821	82	-	-	1	4,706
Inland Waterways	65	0	-	29,586	1,247	-	-	-	15,082
Pipeline Transport	-	-	-	81	1	-	-	-	1
Non-specified Transport	-	-	-	11,472	4,197	-	-	-	7,268
Other Sector	82,405	5,008	-	99,859	36,255	-	-	1,335	40,528
Residential	47,632	4,241	-	46,887	17,165	-	-	263	9,834
Commerce and Public Services	12,741	204	-	5,690	2,061	-	-	295	2,336
Agriculture	9,664	391	-	15,717	1,986	-	-	12	13,622
Non-specified Others	12,368	173	-	31,564	15,043	-	-	764	14,736
<b>Non-energy</b>	-	-	-	<b>731</b>	<b>62,686</b>	<b>191</b>	<b>26,017</b>	-	-
<b>2011</b>									
Indigenous Production	1,828,168	-	202,876	-	-	-	-	-	-
Import	92,919	79	253,779	52,117	29	2,248	5,015	2	2,373
Export	-8,238	-2,242	-2,514	-29,814	-4,077	-456	-6,334	-2	-2,052
International Marine Bunkers	-	-	-	-1,181	-	-	-553	-	-196
International Aviation Bunkers	-	-	-	-2,645	-	-	-2,645	-	-
Stock Changes	-36,928	-7,026	-14,530	-6,101	-1,175	-413	-109	-13	-796
<b>Total Primary Energy Supply</b>	<b>1,875,921</b>	<b>-9,190</b>	<b>439,610</b>	<b>12,376</b>	<b>-5,223</b>	<b>1,379</b>	<b>-4,626</b>	<b>-13</b>	<b>-670</b>
<b>Transfers</b>									
<b>Total Transformation Sector</b>	<b>-1,271,515</b>	<b>109,571</b>	<b>-432,661</b>	<b>408,501</b>	<b>80,849</b>	<b>25,380</b>	<b>19,537</b>	<b>1,071</b>	<b>159,611</b>
Main Activity Producer	-828,347	-1,265	-113	-4,001	-	-	-	-	-400
Autoproducers	-131,640	-21,794	-46	-3,783	-0	-	-	-	-24
Gas Processing	-4,824	-741	-	-	-	-	-	-	-
Petroleum Refineries	-	-	-432,502	464,742	80,851	27,543	19,537	1,071	160,035
Coal Transformation	-306,704	133,372	-	-	-	-	-	-	-
Other Transformation	-	-	-	-48,457	-2	-2,163	-	-	-
Loss & Own Use	-55,871	-6,886	-4,730	-6,742	-754	-	-	-24	-4,628
Discrepancy	-74,755	-8,272	-668	-1,785	-50	-140	1	698	113
<b>Total Final Energy Consumption</b>	<b>473,780</b>	<b>85,222</b>	<b>1,552</b>	<b>412,350</b>	<b>74,822</b>	<b>26,619</b>	<b>14,912</b>	<b>1,731</b>	<b>154,426</b>
Industry Sector	389,131	80,154	864	96,703	8,187	356	-	440	18,845
Iron and Steel	57,393	34,208	2	1,838	115	-	-	3	852
Chemical & Petrochemical	58,236	24,984	823	34,793	690	355	-	56	1,064
Non-metallic Minerals	127,094	5,074	20	17,075	347	0	-	36	2,537
Other Industries	146,408	15,888	18	42,998	7,034	1	-	345	14,392
Transport Sector	3,322	1	-	159,989	34,147	-	14,912	1	96,749
Domestic Air Transport	-	-	-	15,830	-	-	14,912	-	291
Road	-	-	-	101,399	29,004	-	-	-	71,838
Rail	3,260	0	-	5,169	84	-	-	1	5,054
Inland Waterways	61	0	-	27,274	1,162	-	-	-	13,229
Pipeline Transport	-	-	-	79	1	-	-	-	1
Non-specified Transport	-	-	-	10,238	3,896	-	-	-	6,336
Other Sector	81,327	5,068	-	93,519	32,289	-	-	1,291	38,832
Residential	48,443	4,316	-	43,677	15,023	-	-	242	9,126
Commerce and Public Services	11,834	197	-	5,243	1,825	-	-	331	2,166
Agriculture	9,664	368	-	14,984	1,916	-	-	15	12,973
Non-specified Others	11,386	187	-	29,614	13,526	-	-	703	14,566
<b>Non-energy</b>	-	-	-	<b>688</b>	<b>62,139</b>	<b>200</b>	<b>26,262</b>	-	-

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Fuel Oil	LPG	Refinery Gas	Ethane	Other Products	Gas	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
-	-	-	-	-	99,759	75,001	25,381	8,254	4,025	-	-	2,289,163
26,832	4,302	-	-	10,111	39,430	-	-	-	-	591	-	507,042
-11,617	-1,539	-	-	-2,396	-2,691	-	-	-	-	-1,518	-	-39,403
-433	-	-	-	-	-	-	-	-	-	-	-	-1,497
-	-	-	-	-	-	-	-	-	-	-	-	-2,642
-631	-36	-	-	-4,885	-	-	-	-	-	-	-	-84,307
14,151	2,727	-	-	2,831	136,498	75,001	25,381	8,254	4,025	-927	-	2,668,356
-	-	-	-	-	-	-	-	-	-	-	-	-
6,428	25,331	14,246	-	75,716	-24,031	-75,001	-25,381	-8,254	-4,016	428,930	80,979	-850,433
-1,180	-	-742	-	-1,287	-19,942	-75,001	-25,381	-8,254	-4,016	386,368	44,575	-554,735
-1,124	-1	-1,533	-	-953	-4,583	-	-	-	-	42,561	36,404	-91,526
-	-	-	-	-	493	-	-	-	-	-	-	-4,255
22,532	27,224	17,241	-	111,940	-	-	-	-	-	-	-	35,818
-	-	-	-	-	-	-	-	-	-	-	-	-183,038
-13,800	-1,893	-721	-	-33,983	-	-	-	-	-	-	-	-52,696
-163	-60	-367	-	-327	-19,894	-	-	-	-	-73,499	-10,740	-176,534
150	-165	-112	-	-1,097	-159	-	-	-	-9	-44	599	-88,932
20,565	27,833	13,767	-	77,123	92,414	-	-	-	-	354,460	70,837	1,552,458
6,420	5,026	13,638	-	41,380	37,799	-	-	-	-	243,330	48,465	932,042
78	279	-	-	201	3,083	-	-	-	-	44,896	6,628	145,638
2,226	2,696	13,628	-	11,834	16,460	-	-	-	-	33,851	18,209	187,835
2,312	1,037	10	-	10,150	6,497	-	-	-	-	25,381	257	172,347
1,804	1,014	1	-	19,195	11,759	-	-	-	-	139,202	23,371	426,222
13,839	766	-	-	-	13,260	-	-	-	-	7,872	-	202,742
644	1	-	-	-	-	-	-	-	-	-	-	17,383
37	547	-	-	-	11,978	-	-	-	-	1,531	-	128,609
23	10	-	-	-	-	-	-	-	-	4,470	-	12,394
13,056	201	-	-	-	-	-	-	-	-	-	-	29,651
80	-	-	-	-	200	-	-	-	-	266	-	547
0	7	-	-	-	1,082	-	-	-	-	1,605	-	14,158
306	21,435	-	-	-	34,849	-	-	-	-	103,257	22,372	347,750
-	19,625	-	-	-	28,035	-	-	-	-	53,483	18,548	198,826
87	912	-	-	-	3,694	-	-	-	-	14,547	1,137	38,012
20	77	-	-	-	60	-	-	-	-	8,708	27	34,567
199	821	-	-	-	3,061	-	-	-	-	26,519	2,660	76,345
-	606	129	-	35,743	6,506	-	-	-	-	-	-	69,923
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	95,603	60,109	22,503	6,048	8,058	-	-	2,223,366
26,835	4,195	-	-	11,420	29,230	-	-	-	-	564	-	428,688
-12,271	-1,429	-	-	-3,193	-2,968	-	-	-	-	-1,660	-	-47,437
-433	-	-	-	-	-	-	-	-	-	-	-	-1,181
-	-	-	-	-	-	-	-	-	-	-	-	-2,645
-260	36	-	-	-3,371	-	-	-	-	-	-	-	-64,586
13,872	2,802	-	-	4,856	121,866	60,109	22,503	6,048	8,058	-1,096	-	2,536,205
-	-	-	-	-	-	-	-	-	-	-	-	-
8,692	25,509	13,873	-	73,979	-22,662	-60,109	-22,503	-6,048	-8,029	405,320	75,868	-824,269
-1,344	-	-790	-	-1,467	-19,459	-60,109	-22,503	-6,048	-8,019	365,643	41,727	-542,496
-1,103	-7	-1,506	-	-1,144	-4,212	-	-	-	-	39,677	34,140	-87,657
-	-	-	-	-	1,009	-	-	-	-	-	-	-4,557
23,018	27,009	17,030	-	108,648	-	-	-	-	-	-	-	32,240
-	-	-	-	-	-	-	-	-	-	-	-	-173,332
-11,880	-1,493	-861	-	-32,058	-	-	-	-	-10	-	-	-48,467
-320	-222	-399	-	-396	-16,737	-	-	-	-	-72,264	-10,687	-173,916
-261	-168	-58	-	-1,918	-73	-	-	-	-29	-16	-1	-85,599
21,983	27,921	13,416	-	76,520	82,394	-	-	-	-	331,944	65,179	1,452,421
8,262	5,652	13,290	-	41,671	33,193	-	-	-	-	231,001	44,970	876,017
89	650	0	-	129	2,671	-	-	-	-	45,135	6,435	147,681
2,551	2,620	13,281	-	14,176	15,711	-	-	-	-	30,344	16,526	181,417
3,121	1,152	6	-	9,875	6,132	-	-	-	-	25,094	292	180,782
2,501	1,230	3	-	17,492	8,680	-	-	-	-	130,428	21,717	366,137
13,452	729	-	-	-	11,908	-	-	-	-	7,296	-	182,516
626	1	-	-	-	-	-	-	-	-	-	-	15,830
36	521	-	-	-	10,824	-	-	-	-	-	-	112,222
21	9	-	-	-	-	-	-	-	-	3,985	-	12,415
12,691	192	-	-	-	-	-	-	-	-	-	-	27,336
78	-	-	-	-	168	-	-	-	-	257	-	503
-	7	-	-	-	916	-	-	-	-	3,055	-	14,209
269	20,838	-	-	-	31,695	-	-	-	-	93,646	20,210	325,464
-	19,286	-	-	-	25,888	-	-	-	-	48,333	16,741	187,397
93	828	-	-	-	3,228	-	-	-	-	12,926	1,029	34,457
13	67	-	-	-	52	-	-	-	-	8,711	22	33,800
162	657	-	-	-	2,527	-	-	-	-	23,676	2,419	69,810
-	702	126	-	34,849	5,597	-	-	-	-	-	-	68,425

**Major Energy Indicators of China**

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	1990	2000	2005	2008	2009	2010	2011	2012
<b>Total</b>								
Primary Energy Supply	654,004	905,175	1,539,359	1,951,993	2,117,844	2,299,404	2,536,205	2,668,356
Indigenous Production	705,811	865,531	1,426,025	1,816,625	1,897,388	2,087,116	2,223,366	2,289,163
Import	8,436	96,856	184,280	254,443	331,685	385,173	428,688	507,042
Export	-38,922	-64,437	-46,884	-61,416	-49,650	-51,515	-47,437	-39,403
Final Energy Consumption	489,928	634,676	903,638	1,218,756	1,279,634	1,355,881	1,452,421	1,552,458
Industry	329,825	379,343	527,901	754,164	794,561	848,602	876,017	932,042
Transport	28,776	60,078	104,959	145,300	149,602	166,547	182,516	202,742
Residential	-	81,851	125,945	164,445	171,750	174,005	187,397	198,826
Commerce & Public Services	-	14,140	27,440	26,128	29,655	30,426	34,457	38,012
Others	131,327	99,264	117,393	128,719	134,066	136,301	172,035	180,835
<b>Coal, Coal Products</b>								
Primary Energy Supply	512,155	631,243	1,122,099	1,431,782	1,568,767	1,658,339	1,866,731	1,945,598
Indigenous Production	539,952	649,618	1,143,269	1,471,741	1,557,291	1,691,720	1,828,168	1,869,264
Import	877	1,496	15,686	24,770	72,637	83,241	92,998	145,966
Export	-7,785	-40,130	-18,528	-32,491	-11,866	-12,634	-10,480	-5,886
Transformation Sector	-	-	-676,278	-906,139	-959,259	-1,028,120	-1,161,945	-1,199,448
Power Generation	-119,784	-327,372	-583,983	-743,252	-786,944	-869,064	-983,047	-1,011,662
Final Energy Consumption	338,239	296,805	367,076	461,573	476,501	541,999	559,002	597,464
Industry	224,832	216,937	278,711	371,056	384,394	453,879	469,286	506,883
Transport	11,089	5,540	5,470	4,370	4,208	3,292	3,323	3,168
Residential	-	42,496	57,455	58,089	57,509	53,310	52,759	51,873
Commerce & Public Services	-	4,275	9,674	10,737	11,829	10,790	12,031	12,944
Others	102,319	27,556	15,766	17,321	18,561	20,728	21,605	22,596
<b>Crude Oil</b>								
Primary Energy Supply	117,828	213,834	299,315	354,986	381,305	428,766	439,610	466,847
Indigenous Production	138,448	163,003	181,353	195,050	189,490	203,014	202,876	207,478
Import	2,926	70,267	126,817	178,885	203,653	237,682	253,779	271,027
Export	-24,014	-10,306	-8,067	-4,238	-5,073	-3,030	-2,514	-2,432
Transformation Sector	-	-	-290,621	-341,051	-371,158	-418,764	-432,661	-459,457
Petroleum Refineries	-109,722	-203,057	-290,405	-340,953	-371,094	-418,694	-432,502	-459,335
<b>Petroleum Products</b>								
Primary Energy Supply	-3,389	10,828	19,828	15,228	14,023	9,319	12,376	7,678
Import	4,634	24,960	41,484	46,171	47,771	48,262	52,117	50,028
Export	-7,123	-10,229	-16,710	-20,235	-28,229	-30,460	-29,814	-26,876
Transformation Sector	-	-	264,109	319,368	349,738	392,389	408,501	435,248
Power Generation	-11,140	-15,203	-19,899	-11,963	-8,902	-10,044	-7,784	-7,209
Petroleum Refineries	107,409	198,116	284,152	331,352	358,643	439,463	464,742	495,153
Final Energy Consumption	80,728	187,223	277,903	329,241	347,032	386,742	412,350	436,360
Industry	47,912	62,920	77,324	85,153	91,860	119,803	96,703	95,373
Transport	16,676	51,830	94,924	130,122	132,489	147,899	159,989	178,442
Residential	-	14,615	20,728	32,461	35,095	38,046	43,677	46,887
Commerce & Public Services	-	5,677	9,543	3,844	4,512	5,056	5,243	5,690
Others	16,140	52,181	75,385	77,661	83,075	75,938	106,738	109,967
<b>Natural Gas</b>								
Primary Energy Supply	14,242	22,401	44,665	76,025	83,505	100,062	121,866	136,498
Indigenous Production	14,242	25,323	47,429	74,759	79,385	88,303	95,603	99,759
Import	-	-	-	4,286	7,107	15,511	29,230	39,430
Export	-	-2,922	-2,764	-3,021	-2,988	-3,752	-2,968	-2,691
Transformation Sector	-	-	2,492	61,374	67,969	-18,783	-22,662	-24,031
Power Generation	-680	-4,855	-5,092	-14,743	-20,621	-19,932	-23,671	-24,525
Final Energy Consumption	13,205	24,087	38,454	123,698	136,593	66,293	82,394	92,414
Industry	11,084	14,147	20,241	88,727	102,837	25,373	33,193	37,799
Transport	47	93	863	5,891	7,598	9,040	11,908	13,260
Residential	-	4,810	11,103	21,087	21,231	22,466	25,888	28,035
Commerce & Public Services	-	378	1,226	1,982	2,725	2,536	3,228	3,694
Others	2,074	4,659	5,021	6,011	2,201	6,879	8,177	9,627
<b>Electricity</b>								
Power Generation	53,440	116,428	214,823	298,152	319,460	361,816	405,320	428,930
Thermal	42,540	94,348	173,981	238,290	260,423	270,571	323,642	333,198
Hydro	10,900	19,134	34,143	50,326	52,945	62,107	60,109	75,001
Nuclear	-	1,454	4,612	5,941	6,092	6,418	7,501	8,460
Others	-	1,491	2,087	3,595	-	22,720	14,068	12,270
Final Energy Consumption	52,150	90,621	169,807	243,839	261,801	296,693	331,944	354,460
Industry	40,392	59,109	116,274	167,819	177,389	205,710	231,001	243,330
Transport	964	2,419	3,701	4,918	5,306	6,317	7,296	7,872
Residential	-	14,384	24,293	37,806	41,901	44,072	48,333	53,483
Commerce & Public Services	-	3,387	6,470	8,750	9,776	11,111	12,926	14,547
Others	10,794	11,323	19,068	24,546	27,429	29,484	32,387	35,227

### Major Economic Indicators of China

	1990	2000	2005	2008	2009	2010	2011	2012
Population (Millions) *1	1,135.19	1,262.65	1,303.72	1,324.66	1,331.26	1,337.71	1,344.13	1,350.70
Gross Domestic Product *4								
Real Term (Billions of 2010 Price and 2010 USD)	847.29	2,188.86	3,486.23	4,916.55	5,369.57	5,930.53	6,482.06	6,978.11
Real Term (Billions of 2010 Price and 2010 PPP)	1,730.11	4,469.51	7,118.67	10,039.29	10,964.33	12,109.77	13,235.97	14,248.86
Nominal (Billions of Current USD)	390.28	1,198.46	2,256.90	4,519.51	4,990.22	5,930.53	7,321.94	8,229.45
GDP per Capita *4								
Real Term (2010 Price and 2010 USD)	746	1,734	2,674	3,712	4,033	4,433	4,822	5,166
Real Term (2010 Price and 2010 PPP)	1,524	3,540	5,460	7,579	8,236	9,053	9,847	10,549
Nominal (Current USD)	344	949	1,731	3,412	3,748	4,433	5,447	6,093
Nominal GDP & its Components (Billions of Current CNY) *1								
Gross Domestic Product	1,866.78	9,921.46	18,493.74	31,404.54	34,090.28	40,151.28	47,310.40	51,947.01
Household Final Consumption Expenditure, etc.	877.09	4,632.01	7,047.27	10,974.13	11,571.23	13,945.50	16,985.61	18,065.26
General Government Final Consumption Expenditure	263.96	1,566.14	2,639.88	4,175.21	4,569.02	5,335.63	6,315.49	7,140.90
Gross Fixed Capital Formation	482.78	3,384.44	7,423.29	12,808.44	15,667.98	18,361.52	21,568.20	24,175.68
Stock Change	191.92	99.84	362.40	1,024.09	778.34	998.87	1,266.23	1,101.64
Exports of Goods and Services	274.47	2,314.32	6,855.53	10,985.82	9,107.59	11,803.18	13,497.79	14,192.50
Imports of Goods and Services	223.43	2,075.29	5,834.63	8,563.14	7,603.88	10,293.42	12,322.91	12,728.98
Real GDP & its Components (Billions of 1990 CNY) *1								
Gross Domestic Product	3,840.50	9,921.46	15,802.07	22,285.30	24,338.71	26,881.37	29,381.31	31,629.73
Household Final Consumption Expenditure, etc.	2,095.42	4,632.01	6,493.44	7,816.12	8,991.48	9,047.77	9,948.07	10,786.79
General Government Final Consumption Expenditure	585.24	1,566.14	2,271.44	3,054.11	3,305.22	3,666.01	4,013.34	4,360.03
Gross Fixed Capital Formation	874.35	3,384.44	6,136.77	8,613.55	10,575.30	11,798.18	12,876.64	14,051.65
Stock Change	347.58	99.84	299.59	688.69	525.35	641.83	755.96	640.31
Exports of Goods and Services	416.90	2,314.32	5,388.36	8,676.18	7,779.06	9,939.46	10,827.75	11,395.34
Imports of Goods and Services	379.73	2,075.29	4,787.53	6,563.35	6,837.70	8,211.88	9,040.45	9,604.40
Sectional Shares of Real GDP (%) *1								
Agriculture, Fishery and Forest	26.8	15.1	11.5	9.3	8.9	8.4	8.0	7.8
Industry	33.3	45.9	48.2	49.0	49.3	50.1	50.6	50.7
Services, etc.	38.2	39.0	40.4	41.7	41.8	41.5	41.4	41.5
Industrial Production Index (2000=100) *3*4	27.3	100.0	167.6	239.0	259.9	291.3	321.5	0.0
External Trade (Billions of Current USD) *1								
Exports, f.o.b.	62.091	249.203	761.953	1,430.693	1,201.612	1,577.754	1,898.381	2,048.814
Imports, c.i.f.	53.345	225.094	659.953	1,132.567	1,005.923	1,396.247	1,743.484	1,818.069
Balance of Payments (Billions of Current USD) *2								
Trade Balance	N.A.	N.A.	119.660	341.860	235.179	245.539	236.050	297.746
Current Account	N.A.	N.A.	132.378	420.569	243.257	237.810	136.097	215.392
Overall Balance	N.A.	N.A.	227.728	460.695	441.690	524.675	401.567	183.626
Foreign Exchange Rate (CNY/USD) *1	4.7832	8.2785	8.1943	6.9487	6.8314	6.7703	6.4615	6.3123
Purchasing Power Parity (CNY/International Dollar) *1	1.6337	2.7435	2.8583	3.1904	3.1468	3.3156	3.5055	3.5140
Price Indices								
GDP Deflator (2000=100) *4	48.6	100.0	117.0	140.9	140.1	149.4	161.0	164.2
Wholesale Price Index (1995=100) *4	51.8	98.7	108.5	123.2	116.5	122.9	130.3	128.1
Consumer Price Index (1995=100) *4	58.3	99.5	100.9	112.0	110.7	114.1	119.7	122.1
Growth Rate (%)								
Real GDP *4	4.06	7.62	11.31	9.63	9.21	10.45	9.30	7.65
Population *4	1.48	0.79	0.59	0.51	0.50	0.48	0.48	0.49
Price *4								
Wholesale Price Index	4.1	2.8	4.9	6.9	-5.4	5.5	6.0	-1.7
Consumer Price Index	2.1	-1.5	0.8	5.9	-1.2	3.1	4.9	2.0

Source : \*1 : "World Development Indicators", World Bank

\*2 : "International Financial Statistics", International Monetary Fund

\*3 : "China Statistics Yearbook", China Statistical Publishing House

\*4 : Calculated from \*1, \*2 and \*3 by the Coordinating Agency

Note : N.A. means "not available"

: CNY means Yuan Renminbi, USD means United States Dollar

: PPP means Purchasing Power Parity

### 3.6 Hong Kong, China

## Energy Balance Table of Hong Kong, China

	Coal	Coal Products	Crude Oil & NGL	Petroleum Products					Gas/Diesel Oil
				Total	Gasoline	Naphtha	Jet Fuel	Kerosene	
<b>2012</b>									
Indigenous Production	-	-	-	-	-	-	-	-	-
Import	7,779	-	-	17,851	433	305	5,638	8	3,610
Export	-0	-	-	-810	-8	-	-206	-	-114
International Marine Bunkers	-	-	-	-8,448	-	-	-	-	-1,384
International Aviation Bunkers	-	-	-	-5,589	-	-	-5,589	-	-
Stock Changes	-491	-	-	230	-1	28	163	-	-175
<b>Total Primary Energy Supply</b>	<b>7,288</b>	-	-	<b>3,234</b>	<b>424</b>	<b>333</b>	<b>5</b>	<b>8</b>	<b>1,938</b>
Transfers	-	-	-	-	-	-	-	-	-
Total Transformation Sector	-7,288	-	-	-518	-	-333	-	-	-92
Main Activity Producer	-7,288	-	-	-190	-	-	-	-	-97
Autoproducers	-	-	-	-	-	-	-	-	-
Gas Processing	-	-	-	-333	-	-333	-	-	-
Petroleum Refineries	-	-	-5	5	-	-	-	-	5
Coal Transformation	-	-	-	-	-	-	-	-	-
Other Transformation	-	-	5	-	-	-	-	-	-
Loss & Own Use	-	-	-	-	-	-	-	-	-
Discrepancy	0	-	-	-298	57	0	0	-0	-355
<b>Total Final Energy Consumption</b>	<b>0</b>	-	-	<b>2,418</b>	<b>481</b>	-	<b>5</b>	<b>8</b>	<b>1,491</b>
Industry Sector	0	-	-	102	-	-	-	1	100
Iron and Steel	-	-	-	-	-	-	-	-	-
Chemical & Petrochemical	-	-	-	-	-	-	-	-	-
Non-metallic Minerals	-	-	-	-	-	-	-	-	-
Other Industries	0	-	-	102	-	-	-	1	100
Transport Sector	-	-	-	2,110	481	-	2	-	1,294
Domestic Air Transport	-	-	-	2	-	-	2	-	-
Road	-	-	-	1,914	475	-	-	-	1,106
Rail	-	-	-	-	-	-	-	-	-
Inland Waterways	-	-	-	193	6	-	-	-	187
Pipeline Transport	-	-	-	-	-	-	-	-	-
Non-specified Transport	-	-	-	-	-	-	-	-	-
Other Sector	-	-	-	206	0	-	3	7	97
Residential	-	-	-	91	-	-	-	0	-
Commerce and Public Services	-	-	-	114	0	-	3	7	97
Agriculture	-	-	-	-	-	-	-	-	-
Non-specified Others	-	-	-	-	-	-	-	-	-
Non-energy	-	-	-	-	-	-	-	-	-
<b>2011</b>									
Indigenous Production	-	-	-	-	-	-	-	-	-
Import	7,891	-	-	19,113	423	266	5,938	11	4,393
Export	-0	-	-	-628	-7	-	-251	-	-101
International Marine Bunkers	-	-	-	-9,314	-	-	-	-	-2,449
International Aviation Bunkers	-	-	-	-5,662	-	-	-5,662	-	-
Stock Changes	-488	-	-	-372	-10	48	-23	-	101
<b>Total Primary Energy Supply</b>	<b>7,403</b>	-	-	<b>3,137</b>	<b>407</b>	<b>314</b>	<b>2</b>	<b>11</b>	<b>1,944</b>
Transfers	-	-	-	-	-	-	-	-	-
Total Transformation Sector	-7,403	-	-	-325	-	-314	-	-	13
Main Activity Producer	-7,403	-	-	-37	-	-	-	-	-13
Autoproducers	-	-	-	-	-	-	-	-	-
Gas Processing	-	-	-	-314	-	-314	-	-	-
Petroleum Refineries	-	-	-26	26	-	-	-	-	26
Coal Transformation	-	-	-	-	-	-	-	-	-
Other Transformation	-	-	26	-	-	-	-	-	-
Loss & Own Use	-	-	-	-	-	-	-	-	-
Discrepancy	0	-	-	-404	40	-0	3	-0	-447
<b>Total Final Energy Consumption</b>	<b>0</b>	-	-	<b>2,408</b>	<b>447</b>	-	<b>5</b>	<b>11</b>	<b>1,511</b>
Industry Sector	0	-	-	102	-	-	-	1	100
Iron and Steel	-	-	-	-	-	-	-	-	-
Chemical & Petrochemical	-	-	-	-	-	-	-	-	-
Non-metallic Minerals	-	-	-	-	-	-	-	-	-
Other Industries	0	-	-	102	-	-	-	1	100
Transport Sector	-	-	-	2,097	447	-	2	-	1,316
Domestic Air Transport	-	-	-	2	-	-	2	-	-
Road	-	-	-	1,897	439	-	-	-	1,127
Rail	-	-	-	-	-	-	-	-	-
Inland Waterways	-	-	-	197	7	-	-	-	189
Pipeline Transport	-	-	-	-	-	-	-	-	-
Non-specified Transport	-	-	-	-	-	-	-	-	-
Other Sector	-	-	-	209	0	-	2	10	94
Residential	-	-	-	89	-	-	-	0	-
Commerce and Public Services	-	-	-	120	0	-	2	10	94
Agriculture	-	-	-	-	-	-	-	-	-
Non-specified Others	-	-	-	-	-	-	-	-	-
Non-energy	-	-	-	-	-	-	-	-	-

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Fuel Oil	LPG	Refinery Gas	Ethane	Other Products	Gas	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
-	-	-	-	-	-	-	-	-	1	66	-	67
7,427	430	-	-	-	2,374	-	-	-	7	1,015	-	29,027
-481	-0	-	-	-	-	-	-	-	-3	-158	-	-971
-7,064	-	-	-	-	-	-	-	-	-	-	-	-8,448
-	-	-	-	-	-	-	-	-	-	-	-	-5,589
211	2	-	-	-	-	-	-	-	-	-	-	-261
93	432	-	-	-	2,374	-	-	1	69	857	-	13,823
-	-	-	-	-	-	-	-	-	-	-	-	-
-93	-	-	-	-	-1,364	-	-	-1	-36	3,336	4	-5,866
-93	-	-	-	-	-1,697	-	-	-0	-	3,333	-	-5,842
-	-	-	-	-	-	-	-	-1	-13	4	4	-5
-	-	-	-	-	333	-	-	-	-	-	-	-0
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-23	-	-	-18
-	-	-	-	-	-333	-	-	-	-	-489	-	-823
0	-0	-	-	-	-0	-	-	-0	0	0	-	-298
-	432	-	-	-	677	-	-	-	34	3,704	4	6,837
-	0	-	-	-	26	-	-	-	-	224	-	352
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	0	-	-	-	26	-	-	-	-	224	-	352
-	333	-	-	-	-	-	-	-	-	65	-	2,175
-	-	-	-	-	-	-	-	-	-	-	-	2
-	333	-	-	-	-	-	-	-	-	-	-	1,914
-	-	-	-	-	-	-	-	-	-	65	-	65
-	-	-	-	-	-	-	-	-	-	-	-	193
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	99	-	-	-	651	-	-	-	34	3,416	4	4,311
-	91	-	-	-	370	-	-	-	-	984	-	1,445
-	8	-	-	-	282	-	-	-	34	2,432	4	2,866
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
7,647	435	-	-	-	2,547	-	-	1	52	-	-	53
-269	-	-	-	-	-	-	-	-	50	975	-	30,577
-6,865	-	-	-	-	-	-	-	-	-22	-254	-	-904
-	-	-	-	-	-	-	-	-	-	-	-	-9,314
-490	-0	-	-	-	-	-	-	-	-	-	-	-5,662
24	435	-	-	-	2,547	-	-	1	80	721	-	13,889
-	-	-	-	-	-	-	-	-	-	-	-	-
-24	-	-	-	-	-1,572	-	-	-0	-50	3,360	-	-5,990
-24	-	-	-	-	-1,886	-	-	-0	-	3,356	-	-5,969
-	-	-	-	-	-	-	-	-0	-4	4	-	0
-	-	-	-	-	314	-	-	-	-	-	-	-0
-	-	-	-	-	-	-	-	-	-	-	-	0
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-46	-	-	-20
-	-	-	-	-	-314	-	-	-	-	-460	-	-774
0	0	-	-	-	11	-	-	-0	0	0	-	-393
-	435	-	-	-	672	-	-	0	30	3,621	-	6,732
-	0	-	-	-	22	-	-	0	-	228	-	352
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	0	-	-	-	22	-	-	0	-	228	-	352
-	332	-	-	-	-	-	-	-	-	62	-	2,159
-	-	-	-	-	-	-	-	-	-	-	-	2
-	332	-	-	-	-	-	-	-	-	-	-	1,897
-	-	-	-	-	-	-	-	-	-	62	-	62
-	-	-	-	-	-	-	-	-	-	-	-	197
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	103	-	-	-	650	-	-	0	30	3,331	-	4,221
-	89	-	-	-	370	-	-	-	-	952	-	1,412
-	14	-	-	-	280	-	-	0	30	2,379	-	2,809
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-

**Major Energy Indicators of Hong Kong, China**

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	1990	2000	2005	2008	2009	2010	2011	2012
<b>Total</b>								
Primary Energy Supply	10,643	15,094	14,094	13,402	13,337	13,359	13,889	13,823
Indigenous Production	-	-	81	98	55	56	53	67
Import	12,918	19,786	25,210	26,015	30,599	32,137	30,577	29,027
Export	-2,123	-1,557	-1,763	-1,146	-1,101	-726	-904	-971
Final Energy Consumption	6,689	11,204	6,696	6,879	6,624	6,693	6,732	6,837
Industry	1,516	1,714	574	764	424	383	352	352
Transport	3,136	6,088	2,334	2,144	2,104	2,147	2,159	2,175
Residential	-	-	1,220	1,289	1,370	1,385	1,412	1,445
Commerce & Public Services	-	-	2,440	2,682	2,726	2,777	2,809	2,866
Others	2,037	3,401	128	-	-	-	-	-
<b>Coal, Coal Products</b>								
Primary Energy Supply	6,008	4,125	6,870	6,850	7,154	6,225	7,403	7,288
Indigenous Production	-	-	-	-	-	-	-	-
Import	5,362	3,658	6,826	7,146	7,767	6,503	7,891	7,779
Export	-1	-24	-0	-0	-0	-0	-0	-0
Transformation Sector	-	-	-6,869	-6,850	-7,154	-6,224	-7,403	-7,288
Power Generation	-5,996	-4,121	-6,869	-6,850	-7,154	-6,224	-7,403	-7,288
Final Energy Consumption	12	4	1	-	0	0	0	0
Industry	-	-	1	-	0	0	0	0
Transport	-	-	-	-	-	-	-	-
Residential	-	-	-	-	-	-	-	-
Commerce & Public Services	-	-	-	-	-	-	-	-
Others	12	4	-	-	-	-	-	-
<b>Crude Oil</b>								
Primary Energy Supply	-	-	-	-	-	-0	-	-
Indigenous Production	-	-	-	-	-	-0	-	-
Import	-	-	-	-	-	-	-	-
Export	-	-	-	-	-	-	-	-
Transformation Sector	-	-	-	-	-	0	-	-
Petroleum Refineries	-	-	-	-	-	-6	-26	-5
<b>Petroleum Products</b>								
Primary Energy Supply	4,790	8,186	4,552	3,917	2,936	3,202	3,137	3,234
Import	7,556	13,245	15,405	15,852	19,317	21,530	19,113	17,851
Export	-1,967	-1,431	-1,377	-838	-778	-498	-628	-810
Transformation Sector	-	-	-756	-387	-333	-348	-325	-518
Power Generation	-126	-37	-38	-36	-45	-37	-37	-190
Petroleum Refineries	-	-	-	-	-	6	26	5
Final Energy Consumption	4,304	7,518	2,665	2,764	2,361	2,397	2,408	2,418
Industry	908	1,269	204	453	97	97	102	102
Transport	3,136	6,088	2,210	2,084	2,043	2,086	2,097	2,110
Residential	-	-	33	68	74	81	89	91
Commerce & Public Services	-	-	89	159	147	134	120	114
Others	260	161	128	-	-	-	-	-
<b>Natural Gas</b>								
Primary Energy Supply	-	2,007	2,033	1,870	2,511	3,145	2,547	2,374
Indigenous Production	-	-	-	-	-	-	-	-
Import	-	2,007	2,033	2,041	2,511	3,145	2,547	2,374
Export	-	-	-	-	-	-	-	-
Transformation Sector	-	-	-1,447	-1,277	-1,572	-2,169	-1,572	-1,364
Power Generation	-	-2,007	-2,033	-1,500	-1,860	-2,486	-1,886	-1,697
Final Energy Consumption	324	560	586	593	651	659	672	677
Industry	13	21	19	19	22	22	22	26
Transport	-	-	-	-	-	-	-	-
Residential	-	-	332	335	366	365	370	370
Commerce & Public Services	-	-	235	238	264	272	280	282
Others	311	539	-	-	-	-	-	-
<b>Electricity</b>								
Power Generation	2,488	2,694	3,307	3,586	3,334	3,297	3,360	3,336
Thermal	2,488	2,694	3,266	3,489	3,330	3,293	3,356	3,323
Hydro	-	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-	-
Others	-	-	41	98	4	4	4	13
Final Energy Consumption	2,049	3,121	3,444	3,520	3,572	3,604	3,621	3,704
Industry	596	424	350	291	270	265	228	224
Transport	-	-	123	60	60	61	62	65
Residential	-	-	856	886	931	940	952	984
Commerce & Public Services	-	-	2,116	2,282	2,311	2,338	2,379	2,432
Others	1,454	2,697	-	-	-	-	-	-

**Major Economic Indicators of Hong Kong, China**

	1990	2000	2005	2008	2009	2010	2011	2012
Population (Millions) *1	5.70	6.67	6.81	6.96	6.97	7.02	7.07	7.15
Gross Domestic Product *3								
Real Term (Billions of 2010 Price and 2010 USD)	104.11	153.40	188.65	219.54	214.15	228.64	239.58	243.29
Real Term (Billions of 2010 Price and 2010 PPP)	150.95	222.42	273.52	318.32	310.49	331.50	347.37	352.75
Nominal (Billions of Current USD)	76.93	171.67	181.57	219.28	214.05	228.64	248.51	262.63
GDP per Capita *3								
Real Term (2010 Price and 2010 USD)	18,251	23,016	27,689	31,554	30,712	32,550	33,879	34,005
Real Term (2010 Price and 2010 PPP)	26,462	33,371	40,146	45,749	44,528	47,194	49,121	49,303
Nominal (Current USD)	13,486	25,757	26,650	31,516	30,698	32,550	35,143	36,708
Nominal GDP & its Components (Billions of Current HKD) *1								
Gross Domestic Product	599.26	1,337.50	1,412.13	1,707.49	1,659.25	1,776.33	1,934.43	2,037.06
Household Final Consumption Expenditure, etc.	344.30	784.32	811.65	1,026.48	1,013.62	1,090.23	1,224.40	1,315.00
General Government Final Consumption Expenditure	40.97	125.29	130.57	148.02	152.51	157.37	168.52	185.31
Gross Fixed Capital Formation	157.09	354.52	302.15	350.80	339.55	386.85	455.29	517.39
Stock Change	5.73	14.40	-4.76	8.48	22.94	37.52	11.74	-3.66
Exports of Goods and Services	782.97	1,896.10	2,748.73	3,564.84	3,172.94	3,897.49	4,361.25	4,594.82
Imports of Goods and Services	731.80	1,837.13	2,576.22	3,391.12	3,042.31	3,793.14	4,286.78	4,571.79
Real GDP & its Components (Billions of 2000 HKD) *1								
Gross Domestic Product	871.73	1,284.42	1,579.55	1,838.23	1,793.03	1,914.38	2,006.00	2,037.06
Household Final Consumption Expenditure, etc.	562.99	851.78	933.27	1,096.22	1,098.18	1,165.33	1,263.13	1,315.00
General Government Final Consumption Expenditure	90.59	140.56	155.49	165.12	168.95	174.62	178.90	185.31
Gross Fixed Capital Formation	220.01	350.30	377.57	422.83	408.17	439.56	484.53	517.39
Stock Change	8.42	17.54	-5.72	9.10	26.28	41.61	11.76	-3.66
Exports of Goods and Services	941.13	2,212.02	3,399.12	4,131.85	3,717.64	4,340.83	4,509.30	4,594.82
Imports of Goods and Services	919.26	2,262.29	3,265.09	3,975.16	3,617.35	4,246.22	4,442.02	4,571.79
Sectional Shares of Real GDP (%) *1								
Agriculture, Fishery and Forest	N.A.	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Industry	N.A.	11.4	7.8	6.5	6.4	6.4	6.7	6.8
Services, etc.	N.A.	84.5	88.6	89.3	89.6	89.6	89.7	90.0
Manufacturing Production (2010=100) *2	126.1	105.3	112.0	105.3	96.5	100.0	100.7	99.9
External Trade (Billions of Current USD) *1								
Exports, f.o.b.	82.390	202.683	292.119	370.242	329.422	400.692	455.573	493.366
Imports, c.i.f.	84.725	214.042	300.160	392.962	352.241	441.369	510.855	554.222
Balance of Payments (Billions of Current USD) *2								
Trade Balance	N.A.	N.A.	31.068	25.029	13.288	3.292	-7.482	-18.913
Current Account	N.A.	N.A.	21.575	32.872	21.156	16.012	13.809	4.147
Overall Balance	N.A.	N.A.	0.358	28.910	81.529	12.191	10.418	19.779
Foreign Exchange Rate (HKD/USD) *1	7.7898	7.7912	7.7773	7.7868	7.7518	7.7692	7.7840	7.7564
Purchasing Power Parity (HKD/International Dollar) *1	6.0107	7.4323	5.6802	5.4709	5.4087	5.3585	5.4616	5.5663
Price Indices								
GDP Deflator (2012=100) *3	68.7	104.1	89.4	92.9	92.5	92.8	96.4	100.0
Producer Price Index (2010=100) *2	89.5	96.0	86.3	96.0	94.3	100.0	108.3	108.4
Consumer Price Index (2010=100) *2	56.9	95.8	89.5	97.1	97.7	100.0	105.3	109.5
Growth Rate (%) *3								
Real GDP	3.83	7.66	7.39	2.13	-2.46	6.77	4.79	1.55
Population	0.32	0.89	0.44	0.60	0.22	0.74	0.67	1.17
Price								
Producer Price Index	N.A.	0.2	-7.9	5.6	-1.7	6.0	8.3	0.1
Consumer Price Index	10.2	-3.7	0.9	4.3	0.6	2.3	5.3	4.1

Source : \*1 : "World Development Indicators", World Bank

\*2 : "International Financial Statistics", International Monetary Fund

\*3 : Calculated from \*1 and \*2 by the Coordinating Agency

Note : N.A. means "not available"  
: HKD means Hong Kong Dollar, USD means United States Dollar  
: PPP means Purchasing Power Parity

**Energy Price of Hong Kong, China in 2012****Currency Exchange Rate**

Currency Exchange Rate	Local currency / US Dollar	
Local Currency Unit		HK\$

**IMPORT PRICES****WHOLESALE PRICES****CONSUMER PRICES**

Unit	Amount	Unit	Amount	Unit	Amount		
<b>Coal and Coal Products</b>							
Coking Coal		Coking Coal		Coking Coal			
Anthracite	HK\$ / t	5,373.44	Anthracite		Anthracite		
Other bituminous coal	HK\$ / t	654.20	Other bituminous coal		Other bituminous coal		
Sub-bituminous Coal			Sub-bituminous Coal		Sub-bituminous Coal		
Lignite			Lignite		Lignite		
Peat			Peat		Peat		
Patent Fuel			Patent Fuel		Patent Fuel		
Coke			Coke		Coke		
Coal Tar			Coal Tar		Coal Tar		
BKB/PB			BKB/PB		BKB/PB		
			Gas Works Gas		Gas Works Gas		
<b>Oil and Oil Products</b>							
Crude Oil		Crude Oil		Crude Oil			
Natural Gas Liquids		Natural Gas Liquids		Natural Gas Liquids			
Ethane		Ethane		Ethane			
LPG	HK\$ / kg	7.89	LPG		LPG	HK\$ / kg	21.78
Naphtha		Naphtha		Naphtha			
Motor Gasoline	HK\$ / l	6.58	Motor Gasoline		Motor Gasoline	HK\$ / l	15.82
Aviation Gasoline			Aviation Gasoline		Aviation Gasoline		
Gasoline Type Jet Fuel			Gasoline Type Jet Fuel		Gasoline Type Jet Fuel		
Kerosene Type Jet Fuel	HK\$ / l	6.25	Kerosene Type Jet Fuel		Kerosene Type Jet Fuel		
Other Kerosene			Other Kerosene		Other Kerosene		
Gas/Diesel Oil			Gas/Diesel Oil		Gas/Diesel Oil		
Fuel Oil	HK\$ / l	5.21	Fuel Oil		Fuel Oil		
White Spirit SBP			White Spirit SBP		White Spirit SBP		
Lubricants			Lubricants		Lubricants		
Bitumen			Bitumen		Bitumen		
Paraffin Waxes			Paraffin Waxes		Paraffin Waxes		
Petroleum Coke			Petroleum Coke		Petroleum Coke		
<b>Natural Gas</b>							
Natural Gas	HK\$ / kg	3.13	Natural Gas		Natural Gas		
Liquefied Natural Gas			Liquefied Natural Gas		Liquefied Natural Gas		
Compressed Natural Gas			Compressed Natural Gas		Compressed Natural Gas		
<b>Electricity</b>							
Electricity			Electricity		Electricity		
					Industrial		
					Commercial		
					Residential		
					*Average		
<b>Other Energy Products</b>							
Gas oil, diesel oil and naphtha	HK\$ / l	6.24			Enviromental diesel oil (road)	HK\$ / l	12.16

### **3.7 Indonesia**

### Energy Balance Table of Indonesia

	Coal	Coal Products	Crude Oil & NGL	Petroleum Products				
				Total	Gasoline	Naphtha	Jet Fuel	Kerosene
<b>2012</b>								
Indigenous Production	226,909	-	50,330	-	-	-	-	-
Import	46	-	14,672	31,182	16,131	-	607	-
Export	-178,782	-	-17,633	-310	-	-	-2	-258
International Marine Bunkers	-	-	-	-	-	-	-	-12
International Aviation Bunkers	-	-	-	-	-	-	-	-
Stock Changes	128	-	1,833	3,025	289	-	141	-24
<b>Total Primary Energy Supply</b>	<b>48,300</b>	-	<b>49,201</b>	<b>33,897</b>	<b>16,420</b>	-	<b>746</b>	<b>-282</b>
Transfers	-	-	-	-	-	-	-	-
Total Transformation Sector	-31,077	17	-48,280	43,144	10,071	-	2,597	1,456
Main Activity Producer	-31,056	-	-	-7,113	-	-	-	-5,519
Autoproducers	-	-	-	-	-	-	-	-
Gas Processing	-	-	-	-	-	-	-	-
Petroleum Refineries	-	-	-54,270	53,865	10,071	3,608	2,597	1,456
Coal Transformation	-21	17	-	-	-	-	-	15,142
Other Transformation	-	-	5,990	-3,608	-	-3,608	-	-
Loss & Own Use	-	-	-	-	-	-	-	-
Discrepancy	-0	-	-921	391	-63	-	-0	-2
<b>Total Final Energy Consumption</b>	<b>17,223</b>	<b>17</b>	-	<b>77,432</b>	<b>26,429</b>	-	<b>3,343</b>	<b>1,171</b>
Industry Sector	17,223	17	-	17,576	-	-	-	67
Iron and Steel	170	-	-	-	-	-	-	4,861
Chemical & Petrochemical	3,566	-	-	-	-	-	-	-
Non-metallic Minerals	-	-	-	-	-	-	-	-
Other Industries	13,488	17	-	17,576	-	-	-	67
Transport Sector	-	-	-	44,597	25,663	-	3,343	0
Domestic Air Transport	-	-	-	3,345	2	-	3,343	-
Road	-	-	-	41,221	25,661	-	-	0
Rail	-	-	-	-	-	-	-	-
Inland Waterways	-	-	-	-	-	-	-	-
Pipeline Transport	-	-	-	-	-	-	-	-
Non-specified Transport	-	-	-	31	-	-	-	-
Other Sector	-	-	-	11,177	765	-	-	1,104
Residential	-	-	-	6,760	-	-	-	1,003
Commerce and Public Services	-	-	-	906	-	-	-	55
Agriculture	-	-	-	-	-	-	-	691
Non-specified Others	-	-	-	3,511	765	-	-	46
<b>Non-energy</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>4,083</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>2011</b>								
Indigenous Production	207,723	-	51,322	-	-	-	-	-
Import	25	-	14,808	26,315	14,085	-	699	-
Export	-160,331	-	-20,726	-606	-12	-204	-1	-364
International Marine Bunkers	-	-	-	-	-	-	-	-
International Aviation Bunkers	-	-	-	-	-	-	-	-
Stock Changes	-637	-	5,636	4,984	-392	-	-127	-6
<b>Total Primary Energy Supply</b>	<b>46,780</b>	-	<b>51,040</b>	<b>30,693</b>	<b>13,680</b>	<b>-204</b>	<b>571</b>	<b>-370</b>
Transfers	-	-	-	-	-	-	-	-
Total Transformation Sector	-26,530	-	-50,058	33,923	10,478	204	2,483	2,056
Main Activity Producer	-26,530	-	-	-10,003	-	-	-	-7,480
Autoproducers	-	-	-	-	-	-	-	-
Gas Processing	-	-	-	-	-	-	-	-
Petroleum Refineries	-	-	-50,058	48,155	10,478	4,432	2,483	2,056
Coal Transformation	-	-	-	-4,228	-	-4,228	-	15,409
Other Transformation	-	-	-	-	-	-	-	-
Loss & Own Use	-	-	-	-97	-48	-	-	-3
Discrepancy	-11	-	-981	-0	0	0	-	-
<b>Total Final Energy Consumption</b>	<b>20,239</b>	<b>-</b>	<b>-</b>	<b>64,519</b>	<b>24,110</b>	-	<b>3,054</b>	<b>1,682</b>
Industry Sector	20,239	-	-	9,971	-	-	-	96
Iron and Steel	98	-	-	-	-	-	-	4,769
Chemical & Petrochemical	3,453	-	-	-	-	-	-	-
Non-metallic Minerals	-	-	-	-	-	-	-	-
Other Industries	16,688	-	-	9,971	-	-	-	4,769
Transport Sector	-	-	-	40,134	23,417	-	3,054	1
Domestic Air Transport	-	-	-	3,056	2	-	3,054	-
Road	-	-	-	37,055	23,415	-	-	1
Rail	-	-	-	-	-	-	-	-
Inland Waterways	-	-	-	-	-	-	-	-
Pipeline Transport	-	-	-	-	-	-	-	-
Non-specified Transport	-	-	-	23	-	-	-	-
Other Sector	-	-	-	10,633	693	-	-	1,585
Residential	-	-	-	6,386	-	-	-	1,440
Commerce and Public Services	-	-	-	910	-	-	-	80
Agriculture	-	-	-	-	-	-	-	675
Non-specified Others	-	-	-	3,337	693	-	-	66
<b>Non-energy</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3,781</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

Note: Others Excludes non-commercial biomass supply and consumption.

unit: ktoe

Fuel Oil	LPG	Refinery Gas	Ethane	Other Products	Gas	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
-	-	-	-	-	69,435	1,101	-	8,099	-	-	-	355,873
1,004	3,072	-	-	-	-	-	-	-	-	257	-	46,156
-	-	-	-	-37	-31,676	-	-	-	-	-	-	-228,400
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
652	-43	-	-	-	-	-	-	-	-	-	-	4,986
1,656	3,029	-	-	-37	37,760	1,101	-	8,099	-	257	-	178,615
-	-	-	-	-	-	-	-	-	-	-	-	-
1,335	2,975	-	-	15,086	-14,238	-1,101	-	-8,099	-	16,861	-	-42,772
-1,594	-	-	-	-	-10,511	-1,101	-	-8,099	-	16,861	-	-41,019
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-3,727	-	-	-	-	-	-	-3,727
2,929	2,975	-	-	15,086	-	-	-	-	-	-	-	-405
-	-	-	-	-	-	-	-	-	-	-	-	-4
-	-	-	-	-	-	-	-	-	-	-	-	2,382
-	-	-	-	-	-5,771	-	-	-	-	-2,132	-	-7,902
-1,109	-0	-	-	0	-219	-	-	-	-	-23	-	-773
1,882	6,004	-	-	15,049	17,532	-	-	-	-	14,963	-	127,168
1,595	87	-	-	10,967	13,288	-	-	-	-	5,175	-	53,279
-	-	-	-	-	630	-	-	-	-	-	-	800
-	-	-	-	-	3,669	-	-	-	-	-	-	7,235
-	-	-	-	-	1,270	-	-	-	-	-	-	1,270
1,595	87	-	-	10,967	7,719	-	-	-	-	5,175	-	43,974
31	-	-	-	-	19	-	-	-	-	9	-	44,625
-	-	-	-	-	-	-	-	-	-	-	-	3,345
-	-	-	-	-	19	-	-	-	-	-	-	41,240
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-	-	9	-	40
256	5,917	-	-	-	247	-	-	-	-	9,779	-	21,202
-	5,757	-	-	-	19	-	-	-	-	6,203	-	12,982
-	159	-	-	-	228	-	-	-	-	3,575	-	4,709
-	-	-	-	-	-	-	-	-	-	-	-	-
256	-	-	-	-	-	-	-	-	-	-	-	3,511
-	-	-	-	-	4,083	3,979	-	-	-	-	-	8,062
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
1,004	2,377	-	-	-	72,796	1,068	-	8,124	-	-	-	341,034
-	-	-	-	-9	-35,778	-	-	-	-	-	-	41,148
-	-	-	-	-	-	-	-	-	-	-	-	-217,441
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-23	82	-	-	-	-	-	-	-	-	-	-	9,983
980	2,459	-	-	-9	37,018	1,068	-	8,124	-	-	-	174,724
-	-	-	-	-	-	-	-	-	-	-	-	-
406	2,728	-	-	7,639	-14,416	-1,068	-	-8,124	-	15,774	-	-50,499
-2,523	-	-	-	-	-8,414	-1,068	-	-8,124	-	15,774	-	-38,364
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-5,589	-	-	-	-	-	-	-5,589
2,929	2,728	-	-	7,639	-	-	-	-	-	-	-	-1,904
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-413	-	-	-0	-	-	-	-4,642
-3	-	-	-	-	-5,410	-	-	-	-	-2,015	-	-7,522
-0	-	-	-	-	-195	-	-	-0	-	-11	-	-1,198
1,384	5,186	-	-	7,630	16,996	-	-	-	-	13,749	-	115,504
1,172	85	-	-	3,848	16,774	-	-	-	-	4,706	-	51,691
-	-	-	-	-	777	-	-	-	-	-	-	875
-	-	-	-	-	7,454	-	-	-	-	-	-	10,908
-	-	-	-	-	1,232	-	-	-	-	-	-	1,232
1,172	85	-	-	3,848	7,311	-	-	-	-	4,706	-	38,676
23	-	-	-	-	25	-	-	-	-	8	-	40,167
-	-	-	-	-	-	-	-	-	-	-	-	3,056
-	-	-	-	-	25	-	-	-	-	-	-	37,080
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-	-	8	-	30
189	5,101	-	-	-	197	-	-	-	-	9,035	-	19,865
-	4,946	-	-	-	16	-	-	-	-	5,600	-	12,001
-	156	-	-	-	181	-	-	-	-	3,435	-	4,526
-	-	-	-	-	-	-	-	-	-	-	-	-
189	-	-	-	-	-	-	-	-	-	-	-	3,337
-	-	-	-	-	3,781	-	-	-	-	-	-	3,781

**Major Energy Indicators of Indonesia**

ktoe

	1990	2000	2005	2008	2009	2010	2011	2012
<b>Total</b>								
Primary Energy Supply	53,252	101,236	130,970	157,722	158,016	166,980	174,724	178,615
Indigenous Production	119,434	183,995	206,158	271,799	290,486	306,007	341,034	355,873
Import	9,999	21,403	41,760	33,520	37,181	39,190	41,148	46,156
Export	-75,853	-103,804	-115,627	-148,572	-168,980	-179,938	-217,441	-228,400
Final Energy Consumption	33,956	63,569	74,750	100,345	92,182	111,705	115,504	127,168
Industry	11,767	22,658	29,104	42,244	37,124	47,262	51,691	53,279
Transport	11,205	21,452	25,858	26,025	30,729	36,805	40,167	44,625
Residential	-	-	13,227	11,829	11,409	12,326	12,001	12,982
Commerce & Public Services	-	-	1,679	3,765	3,960	7,178	4,526	4,709
Others	10,985	19,459	4,883	16,483	8,960	8,133	7,119	11,572
<b>Coal, Coal Products</b>								
Primary Energy Supply	4,056	10,956	23,742	40,635	32,805	39,525	46,780	48,300
Indigenous Production	5,785	44,007	82,754	134,652	150,835	161,797	207,723	226,909
Import	663	272	53	63	40	32	25	46
Export	-2,392	-33,323	-57,745	-94,080	-116,424	-122,304	-160,331	-178,782
Transformation Sector	-	-	-13,959	-18,257	-21,510	-20,271	-26,530	-31,060
Power Generation	-2,252	-10,048	-13,956	-18,252	-21,503	-20,233	-26,530	-31,056
Final Energy Consumption	1,149	2,053	8,499	22,378	11,294	19,116	20,239	17,240
Industry	1,110	1,821	8,486	22,378	11,294	19,116	20,239	17,240
Transport	0	-	-	-	-	-	-	-
Residential	-	-	13	-	-	-	-	-
Commerce & Public Services	-	-	-	-	-	-	-	-
Others	39	233	-	-	-	-	-	-
<b>Crude Oil</b>								
Primary Energy Supply	38,632	49,852	49,041	49,601	53,316	52,904	51,040	49,201
Indigenous Production	70,733	68,981	48,137	56,405	54,431	58,008	51,322	50,330
Import	6,085	10,660	20,471	12,839	18,284	15,455	14,808	14,672
Export	-38,186	-29,789	-19,567	-20,619	-20,376	-20,558	-20,726	-17,633
Transformation Sector	-	-	-44,642	-47,601	-50,975	-49,087	-50,058	-48,280
Petroleum Refineries	-36,471	-49,298	-44,642	-47,601	-50,975	-49,087	-50,058	-54,270
<b>Petroleum Products</b>								
Primary Energy Supply	-8,202	1,171	13,873	20,618	18,856	19,923	30,693	33,897
Import	3,251	10,471	21,235	20,618	18,856	23,702	26,315	31,182
Export	-11,125	-8,942	-7,363	-	-	-5,500	-606	-310
Transformation Sector	-	-	37,089	34,958	32,783	41,329	33,923	43,144
Power Generation	-3,764	-4,501	-9,259	-9,692	-8,188	-8,428	-10,003	-7,113
Petroleum Refineries	38,041	48,490	46,348	44,650	40,971	52,602	48,155	53,865
Final Energy Consumption	24,681	44,061	45,952	54,276	50,616	63,774	64,519	77,432
Industry	6,317	10,948	10,444	6,288	6,347	7,786	9,971	17,576
Transport	11,203	21,432	25,852	26,001	30,711	36,788	40,134	44,597
Residential	-	-	9,656	7,495	6,665	7,162	6,386	6,760
Commerce & Public Services	-	-	-	1,060	983	3,906	910	906
Others	7,161	11,681	0	13,432	5,910	8,133	7,119	7,593
<b>Natural Gas</b>								
Primary Energy Supply	16,889	34,048	37,710	38,731	44,842	45,062	37,018	37,760
Indigenous Production	41,040	65,798	68,663	72,604	77,022	76,638	72,796	69,435
Import	-	-	-	-	-	-	-	-
Export	-24,151	-31,750	-30,953	-33,873	-32,180	-31,576	-35,778	-31,676
Transformation Sector	-	-	-11,300	-12,689	-15,079	-21,499	-14,416	-14,238
Power Generation	-249	-10,468	-3,423	-5,961	-8,674	-8,773	-8,414	-10,511
Final Energy Consumption	5,504	8,089	11,093	12,589	18,688	16,139	16,996	17,532
Industry	2,862	4,407	6,523	9,452	15,509	15,976	16,774	13,288
Transport	1	20	5	17	8	10	25	19
Residential	-	-	16	18	18	19	16	19
Commerce & Public Services	-	-	24	50	102	135	181	228
Others	2,641	3,662	4,526	3,051	3,051	-	-	3,979
<b>Electricity</b>								
Power Generation	3,245	10,561	10,952	12,852	13,074	14,602	15,774	16,861
Thermal	1,369	5,351	9,459	11,146	11,395	12,279	13,894	14,950
Hydro	935	862	925	991	954	1,518	1,068	1,101
Nuclear	-	-	-	-	-	-	-	-
Others	941	4,348	568	715	724	805	812	810
Final Energy Consumption	2,624	9,365	9,205	11,103	11,584	12,675	13,749	14,963
Industry	1,478	5,482	3,651	4,125	3,974	4,385	4,706	5,175
Transport	1	-	-	7	10	8	8	9
Residential	-	-	3,542	4,316	4,725	5,145	5,600	6,203
Commerce & Public Services	-	-	1,655	2,654	2,875	3,138	3,435	3,575
Others	1,145	3,883	357	-	-	-	-	-

### Major Economic Indicators of Indonesia

	1990	2000	2005	2008	2009	2010	2011	2012
Population (Millions) *1	178.63	208.94	224.48	234.24	237.49	240.68	243.80	246.86
Gross Domestic Product *3								
Real Term (Billions of 2010 Price and 2010 USD)	281.67	425.85	536.48	638.10	667.64	709.19	755.19	802.49
Real Term (Billions of 2010 Price and 2010 PPP)	752.50	1,137.68	1,433.23	1,704.71	1,783.62	1,894.63	2,017.51	2,143.88
Nominal (Billions of Current USD)	114.43	165.02	285.87	510.23	539.58	709.19	845.93	876.72
GDP per Capita *3								
Real Term (2010 Price and 2010 USD)	1,577	2,038	2,390	2,724	2,811	2,947	3,098	3,251
Real Term (2010 Price and 2010 PPP)	4,213	5,445	6,385	7,278	7,510	7,872	8,275	8,684
Nominal (Current USD)	641	790	1,273	2,178	2,272	2,947	3,470	3,551
Nominal GDP & its Components (Billions of Current IDR) *1								
Gross Domestic Product	210,866	1,389,770	2,774,281	4,948,688	5,606,203	6,446,852	7,419,187	8,229,439
Household Final Consumption Expenditure, etc.	124,185	843,654	1,738,433	3,103,065	3,174,205	3,668,157	4,204,389	4,765,448
General Government Final Consumption Expenditure	18,649	90,780	224,981	416,867	537,589	587,283	669,001	733,269
Gross Fixed Capital Formation	59,758	275,881	655,854	1,370,717	1,744,357	2,064,994	2,370,273	2,688,884
Stock Change	4,911	33,283	39,975	5,822	-7,264	18,364	70,774	170,310
Exports of Goods and Services	53,409	569,490	945,122	1,475,119	1,354,409	1,584,674	1,955,821	1,999,254
Imports of Goods and Services	50,046	423,318	830,083	1,422,902	1,197,093	1,476,620	1,851,070	2,127,726
Real GDP & its Components (Billions of 2000 IDR) *1								
Gross Domestic Product	919,241	1,389,770	1,750,815	2,082,456	2,178,850	2,314,459	2,464,566	2,618,938
Household Final Consumption Expenditure, etc.	477,317	843,654	1,035,270	1,218,231	1,251,275	1,322,096	1,374,300	1,464,926
General Government Final Consumption Expenditure	84,219	90,780	134,626	169,297	195,834	196,469	202,795	205,386
Gross Fixed Capital Formation	214,557	275,881	393,501	493,822	510,086	553,348	599,506	657,589
Stock Change	-17,177	33,283	33,508	2,170	-2,065	-604	9,033	50,371
Exports of Goods and Services	301,744	569,490	793,613	1,032,278	932,249	1,074,569	1,221,229	1,245,702
Imports of Goods and Services	255,995	423,318	639,702	833,342	708,529	831,418	942,297	1,005,036
Sectional Shares of Real GDP (%) *1								
Agriculture, Fishery and Forest	19.4	15.6	14.5	13.7	13.6	13.2	12.8	12.5
Industry	41.0	45.9	44.1	42.1	41.7	41.1	40.7	40.3
Services, etc.	39.1	38.5	41.4	44.3	44.8	45.7	46.6	47.2
Manufacturing Production Index (2010=100)	43.2	74.3	88.3	94.5	95.6	100.0	104.1	108.3
External Trade (Billions of Current USD) *1								
Exports, f.o.b.	25.675	65.403	86.996	139.606	119.646	158.074	200.788	188.146
Imports, c.i.f.	21.837	43.595	75.725	127.538	93.786	135.323	176.201	190.225
Balance of Payments (Billions of Current USD) *2								
Trade Balance	N.A.	N.A.	17.611	24.542	32.287	31.003	33.825	8.676
Current Account	N.A.	N.A.	0.278	0.126	10.629	5.144	1.685	-24.074
Overall Balance	N.A.	N.A.	-1.975	-1.706	15.481	33.786	15.252	0.870
Foreign Exchange Rate (IDR/USD) *1	1,842.81	8,421.78	9,704.74	9,698.96	10,389.94	9,090.43	8,770.43	9,386.63
Purchasing Power Parity (IDR/International Dollar) *1	424.28	1,509.79	2,129.69	2,960.70	3,181.20	3,402.69	3,606.57	3,699.95
Price Indices								
GDP Deflator (2000=100) *3	22.9	100.0	158.5	237.6	257.3	278.5	301.0	314.2
Wholesale Price Index (2010=100) *2	9.8	38.8	58.8	97.1	95.4	100.0	107.4	112.9
Consumer Price Index (2010=100) *2	12.7	44.0	68.7	90.7	95.1	100.0	105.4	109.9
Growth Rate (%) *3								
Real GDP	9.00	4.92	5.69	6.01	4.63	6.22	6.49	6.26
Population	1.81	1.45	1.44	1.42	1.38	1.34	1.30	1.26
Price								
Wholesale Price Index	10.0	12.5	16.4	27.0	-1.8	4.9	7.4	5.1
Consumer Price Index	7.8	3.7	10.5	9.8	4.8	5.1	5.4	4.3

Source : \*1 : "World Development Indicators", World Bank

\*2 : "International Financial Statistics", International Monetary Fund

\*3 : Calculated from \*1 and \*2 by the Coordinating Agency

Note : N.A. means "not available"  
: IDR means Rupiah, USD means United States Dollar  
: PPP means Purchasing Power Parity

## 3.8 Japan

## Energy Balance Table of Japan

	Coal	Coal Products	Crude Oil & NGL	Petroleum Products					Gas/Diesel Oil
				Total	Gasoline	Naphtha	Jet Fuel	Kerosene	
<b>2012</b>									
Indigenous Production	675	-	689	-	-	-	-	-	-
Import	112,229	514	183,458	51,123	2,205	18,674	1,047	989	611
Export	-	-988	-	-12,822	-681	-53	-2,402	-122	-6,045
International Marine Bunkers	-	-	-	-4,278	-	-	-	-	-77
International Aviation Bunkers	-	-	-	-6,415	-	-	-6,415	-	-
Stock Changes	-562	-	128	154	-32	56	67	350	150
<b>Total Primary Energy Supply</b>	<b>112,341</b>	<b>-474</b>	<b>184,275</b>	<b>27,762</b>	<b>1,492</b>	<b>18,678</b>	<b>-7,702</b>	<b>1,217</b>	<b>-5,361</b>
Transfers	-	-	-369	303	-	303	-	-	-
<b>Total Transformation Sector</b>	<b>-95,807</b>	<b>26,784</b>	<b>-183,884</b>	<b>137,024</b>	<b>40,891</b>	<b>11,971</b>	<b>10,685</b>	<b>15,139</b>	<b>43,064</b>
Main Activity Producer	-48,982	-3,985	-12,879	-21,178	-	-	-	-6	-488
Autoproducers	-10,938	-2,610	-	-11,412	-	-2,063	-	-31	-1,955
Gas Processing	-	-	-	-1,325	-	-	-	-	-
Petroleum Refineries	-	-	-171,005	171,831	40,891	14,034	10,685	15,175	45,507
Coal Transformation	-35,887	33,378	-	-893	-	-	-	-	-
Other Transformation	-	-	-	-	-	-	-	-	-
Loss & Own Use	-555	-2,991	-	-10,695	-1	-43	-	-64	-293
Discrepancy	-1,326	-4,663	-23	5,837	2,450	-1,630	321	279	1,740
<b>Total Final Energy Consumption</b>	<b>14,654</b>	<b>18,656</b>	<b>-</b>	<b>160,230</b>	<b>44,832</b>	<b>29,277</b>	<b>3,304</b>	<b>16,571</b>	<b>39,150</b>
<b>Industry Sector</b>	<b>14,654</b>	<b>18,061</b>	<b>-</b>	<b>50,061</b>	<b>46</b>	<b>29,277</b>	<b>-</b>	<b>2,661</b>	<b>6,317</b>
Iron and Steel	10,442	17,271	-	1,693	-	-	-	76	309
Chemical & Petrochemical	258	5	-	32,978	-	29,190	-	218	359
Non-metallic Minerals	3,490	278	-	1,378	-	-	-	21	341
Other Industries	463	506	-	14,011	46	87	-	2,346	5,309
<b>Transport Sector</b>	-	-	-	76,340	44,785	-	3,304	-	25,100
Domestic Air Transport	-	-	-	3,305	1	-	3,304	-	-
Road	-	-	-	69,401	44,784	-	-	-	23,612
Rail	-	-	-	208	-	-	-	-	208
Inland Waterways	-	-	-	3,426	-	-	-	-	1,279
Pipeline Transport	-	-	-	-	-	-	-	-	-
Non-specified Transport	-	-	-	-	-	-	-	-	-
<b>Other Sector</b>	-	595	-	29,982	-	-	-	13,910	7,733
Residential	-	14	-	16,864	-	-	-	11,009	-
Commerce and Public Services	-	581	-	8,271	-	-	-	1,489	4,324
Agriculture	-	-	-	3,328	-	-	-	1,406	1,913
Non-specified Others	-	-	-	1,517	-	-	-	6	1,495
<b>Non-energy</b>	-	-	-	3,849	-	-	-	-	-
<b>2011</b>									
Indigenous Production	650	-	722	-	-	-	-	-	-
Import	106,262	504	178,607	48,215	2,009	19,994	921	1,159	762
Export	-	-483	-	-15,745	-1,268	-8	-2,271	-500	-8,022
International Marine Bunkers	-	-	-	-4,412	-	-	-	-	-67
International Aviation Bunkers	-	-	-	-5,891	-	-	-5,891	-	-
Stock Changes	257	-	438	-163	109	44	130	-349	5
<b>Total Primary Energy Supply</b>	<b>107,169</b>	<b>22</b>	<b>179,766</b>	<b>22,003</b>	<b>850</b>	<b>20,029</b>	<b>-7,111</b>	<b>311</b>	<b>-7,322</b>
Transfers	-	-	-463	396	-	396	-	-	-
<b>Total Transformation Sector</b>	<b>-92,141</b>	<b>26,830</b>	<b>-178,574</b>	<b>146,910</b>	<b>41,964</b>	<b>12,088</b>	<b>10,474</b>	<b>15,703</b>	<b>45,435</b>
Main Activity Producer	-44,820	-4,065	-7,554	-12,174	-	-	-	-12	-296
Autoproducers	-10,628	-3,091	-	-10,886	-	-1,999	-	-27	-1,644
Gas Processing	-	-	-	-1,224	-	-	-	-	-
Petroleum Refineries	-	-	-171,020	172,092	41,964	14,087	10,474	15,741	47,376
Coal Transformation	-36,692	33,986	-	-898	-	-	-	-	-
Other Transformation	-	-	-	-	-	-	-	-	-
Loss & Own Use	-604	-3,014	-	-10,792	-4	-53	-	-69	-355
Discrepancy	-80	-5,041	-729	3,378	1,843	-1,725	224	156	1,561
<b>Total Final Energy Consumption</b>	<b>14,345</b>	<b>18,797</b>	<b>-</b>	<b>161,895</b>	<b>44,654</b>	<b>30,736</b>	<b>3,587</b>	<b>16,100</b>	<b>39,320</b>
<b>Industry Sector</b>	<b>14,345</b>	<b>18,234</b>	<b>-</b>	<b>51,954</b>	<b>48</b>	<b>30,736</b>	<b>-</b>	<b>2,170</b>	<b>6,771</b>
Iron and Steel	9,475	17,398	-	1,803	-	-	-	67	313
Chemical & Petrochemical	507	25	-	34,825	-	30,651	-	244	485
Non-metallic Minerals	3,730	315	-	1,496	-	-	-	24	367
Other Industries	632	496	-	13,829	48	85	-	1,835	5,607
<b>Transport Sector</b>	-	-	-	75,781	44,606	-	3,587	-	24,586
Domestic Air Transport	-	-	-	3,589	1	-	3,587	-	-
Road	-	-	-	68,706	44,604	-	-	-	23,102
Rail	-	-	-	194	-	-	-	-	194
Inland Waterways	-	-	-	3,293	-	-	-	-	1,290
Pipeline Transport	-	-	-	-	-	-	-	-	-
Non-specified Transport	-	-	-	-	-	-	-	-	-
<b>Other Sector</b>	-	564	-	30,168	-	-	-	13,930	7,963
Residential	-	11	-	16,671	-	-	-	11,042	-
Commerce and Public Services	-	552	-	8,693	-	-	-	1,516	4,558
Agriculture	-	-	-	3,283	-	-	-	1,367	1,907
Non-specified Others	-	-	-	1,521	-	-	-	6	1,498
<b>Non-energy</b>	-	-	-	3,991	-	-	-	-	-

unit: ktoe

Fuel Oil	LPG	Refinery Gas	Ethane	Other Products	Gas	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
-	-	-	-	-	2,767	6,865	4,689	3,931	5,527	-	-	25,142
8,499	15,613	-	-	3,486	102,497	-	-	-	-	-	-	449,822
-2,547	-225	-	-	-749	-	-	-	-	-	-	-	-13,810
-4,181	-	-	-	-20	-	-	-	-	-	-	-	-4,278
-	-	-	-	-	-	-	-	-	-	-	-	-6,415
-221	-223	-	-	7	-16	-	-	-	-	-	-	-296
1,549	15,166	-	-	2,724	105,248	6,865	4,689	3,931	5,527	-	-	450,164
-	0	-	-	-	-	-	-	-	-	-	-	-66
1,618	1,516	6,652	-	5,488	-72,693	-6,865	-4,689	-3,576	-8,501	95,641	783	-115,784
-18,889	-1,795	-	-	-	-69,997	-6,174	-4,689	-2,326	-708	71,819	606	-98,492
-5,477	-157	-1,562	-	-168	-3,939	-691	-	-1,251	-7,793	23,822	177	-14,635
-	-1,190	-135	-	-	1,244	-	-	-	-	-	-	-81
25,984	4,658	8,348	-	6,548	-	-	-	-	-	-	-	826
-	-	-	-	-893	-	-	-	-	-	-	-	-3,402
-	-	-	-	-	-	-	-	-	-	-	-	-
-771	-932	-6,866	-	-1,725	-4,954	-	-	-	-	-10,716	-	-29,911
1,689	688	214	-	87	3,240	0	-	0	4,408	-223	-73	7,178
4,085	16,438	-	-	6,574	30,841	-	-	355	1,434	84,702	710	311,582
1,913	7,120	-	-	2,725	16,104	-	-	-	1,412	34,246	-	134,538
304	335	-	-	669	1,906	-	-	-	-	6,747	-	38,059
48	2,627	-	-	536	3,311	-	-	-	-	5,040	-	41,593
409	46	-	-	562	855	-	-	-	-	1,684	-	7,686
1,153	4,111	-	-	959	10,032	-	-	-	1,412	20,775	-	47,200
2,146	1,004	-	-	-	93	-	-	-	-	1,737	-	78,169
-	-	-	-	-	-	-	-	-	-	-	-	3,305
-	1,004	-	-	-	-	-	-	-	-	-	-	69,401
-	-	-	-	-	-	-	-	-	-	1,737	-	1,945
2,146	-	-	-	-	-	-	-	-	-	-	-	3,426
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	93	-	-	-	-	-	-	93
26	8,314	-	-	-	14,644	-	-	355	22	48,719	710	95,026
-	5,856	-	-	-	8,630	-	-	336	22	25,025	28	50,919
-	2,458	-	-	-	6,014	-	-	19	-	23,385	606	38,877
10	-	-	-	-	-	-	-	-	-	309	76	3,713
16	-	-	-	-	-	-	-	-	-	-	-	1,517
-	-	-	-	-	3,849	-	-	-	-	-	-	3,849
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	3,100	7,365	42,459	3,768	5,661	-	-	63,725
5,642	14,350	-	-	3,379	92,188	-	-	-	-	-	-	425,776
-2,796	-122	-	-	-758	-	-	-	-	-	-	-	-16,228
-4,323	-	-	-	-22	-	-	-	-	-	-	-	-4,412
-	-	-	-	-	-	-	-	-	-	-	-	-5,891
-5	-101	-	-	2	13	-	-	-	-	-	-	545
-1,483	14,127	-	-	2,601	95,301	7,365	42,459	3,768	5,661	-	-	463,514
-	-	0	-	-	-	-	-	-	-	-	-	-67
5,968	2,668	6,803	-	5,808	-63,589	-7,365	-42,459	-3,383	-7,976	95,536	796	-125,415
-11,079	-786	-	-	-	-61,033	-6,656	-42,459	-2,281	-742	74,319	617	-106,848
-5,423	-187	-1,443	-	-163	-3,710	-709	-	-1,102	-7,234	21,217	179	-15,965
-	-1,088	-136	-	-	1,155	-	-	-	-	-	-	-70
22,470	4,729	8,382	-	6,869	-	-	-	-	-	-	-	1,072
-	-	-	-	-898	-	-	-	-	-	-	-	-3,605
-	-	-	-	-	-	-	-	-	-	-	-	-
-929	-683	-6,994	-	-1,705	-4,238	-	-	-	-	-10,567	-	-29,214
873	197	191	-	56	2,572	0	-	-	4,174	-136	-74	4,064
4,429	16,309	-	-	6,760	30,046	-	-	385	1,859	84,834	722	312,882
2,400	7,062	-	-	2,768	15,599	-	-	-	1,837	34,785	-	136,754
396	390	-	-	638	1,794	-	-	-	-	6,757	-	37,227
192	2,690	-	-	564	3,408	-	-	-	-	5,321	-	44,086
474	45	-	-	587	835	-	-	-	-	1,700	-	8,077
1,339	3,937	-	-	979	9,562	-	-	-	1,837	21,007	-	47,363
2,003	1,000	-	-	-	91	-	-	-	-	1,727	-	77,599
-	-	-	-	-	-	-	-	-	-	-	-	3,589
-	1,000	-	-	-	-	-	-	-	-	-	-	68,706
2,003	-	-	-	-	-	-	-	-	-	-	-	3,293
-	-	-	-	-	-	-	-	-	-	-	-	91
27	8,248	-	-	-	14,356	-	-	385	22	48,322	722	94,538
-	5,629	-	-	-	8,442	-	-	369	22	24,936	31	50,482
-	2,619	-	-	-	5,914	-	-	16	-	23,080	615	38,870
10	-	-	-	-	-	-	-	-	-	306	76	3,665
17	-	-	-	-	-	-	-	-	-	-	-	1,521
-	-	-	-	-	3,991	-	-	-	-	-	-	3,991

## Major Energy Indicators of Japan

	1990	2000	2005	2008	2009	2010	2011	ktoe 2012
<b>Total</b>								
Primary Energy Supply	434,637	513,619	521,229	505,971	463,658	493,206	463,514	450,164
Indigenous Production	74,691	104,956	97,411	86,965	92,214	97,960	63,725	25,142
Import	376,441	426,211	442,858	453,828	396,211	424,340	425,776	449,822
Export	-5,030	-5,850	-9,745	-19,899	-19,052	-17,727	-16,228	-13,810
Final Energy Consumption	305,801	362,063	352,252	330,048	305,706	323,657	312,882	311,582
Industry	141,281	161,458	152,747	146,856	128,419	141,238	136,754	134,538
Transport	70,004	87,407	86,869	80,754	78,767	80,303	77,599	78,169
Residential	40,788	51,092	53,007	50,876	49,348	51,495	50,482	50,919
Commerce & Public Services	34,199	45,456	45,760	41,129	39,870	41,083	38,870	38,877
Others	19,528	16,650	13,870	10,433	9,302	9,537	9,177	9,079
<b>Coal, Coal Products</b>								
Primary Energy Supply	75,664	91,804	112,853	116,899	98,924	112,507	107,191	111,867
Indigenous Production	5,893	1,710	567	627	654	467	650	675
Import	70,045	91,754	112,760	118,120	98,435	112,726	106,767	112,743
Export	-1,039	-1,489	-1,099	-650	-580	-533	-483	-988
Transformation Sector	-30,445	-50,261	-69,908	-72,525	-64,751	-70,180	-65,311	-69,023
Power Generation	-24,918	-46,595	-66,414	-68,661	-61,293	-66,551	-62,604	-66,514
Final Energy Consumption	39,591	39,747	35,015	34,486	28,576	33,620	33,142	33,310
Industry	38,825	38,843	34,084	33,798	28,030	33,013	32,578	32,715
Transport	-	-	-	-	-	-	-	-
Residential	83	27	19	17	14	12	11	14
Commerce & Public Services	683	877	911	671	531	595	552	581
Others	-	-	-	-	-	-	-	-
<b>Crude Oil</b>								
Primary Energy Supply	200,318	218,989	214,674	209,081	185,809	185,437	179,766	184,275
Indigenous Production	555	644	794	855	798	757	722	689
Import	200,268	217,624	212,130	210,089	182,823	185,869	178,607	183,458
Transformation Sector	-195,130	-217,474	-213,869	-208,086	-185,184	-185,029	-178,574	-183,884
Petroleum Refineries	-176,529	-209,924	-207,953	-198,647	-181,832	-181,505	-171,020	-171,005
<b>Petroleum Products</b>								
Primary Energy Supply	48,733	37,465	29,594	13,211	12,369	16,359	22,003	27,762
Import	64,443	54,074	49,898	44,312	39,175	43,562	48,215	51,123
Export	-3,990	-4,361	-8,646	-19,249	-18,473	-17,194	-15,745	-12,822
Transformation Sector	137,816	180,262	177,547	166,933	158,886	159,778	146,910	137,024
Power Generation	-33,298	-24,474	-26,491	-26,848	-20,248	-19,439	-23,059	-32,590
Petroleum Refineries	174,595	208,447	206,425	195,610	180,797	181,228	172,092	171,831
Final Energy Consumption	183,350	211,805	202,569	174,422	165,053	169,131	161,895	160,230
Industry	63,595	74,731	69,814	58,599	53,813	55,716	51,954	50,061
Transport	68,308	85,531	84,953	78,822	76,876	78,383	75,781	76,340
Residential	16,289	18,647	19,935	16,920	16,053	16,666	16,671	16,864
Commerce & Public Services	15,931	16,672	14,416	10,060	9,387	9,222	8,693	8,271
Others	19,228	16,225	13,451	10,021	8,925	9,144	8,795	8,694
<b>Natural Gas</b>								
Primary Energy Supply	43,525	64,918	70,914	84,779	79,120	85,326	95,301	105,248
Indigenous Production	1,847	2,159	2,855	3,482	3,326	3,159	3,100	2,767
Import	41,684	62,759	68,070	81,307	75,778	82,183	92,188	102,497
Transformation Sector	-28,871	-42,730	-46,781	-54,385	-51,845	-53,826	-63,589	-72,693
Power Generation	-32,537	-46,025	-48,578	-55,448	-52,816	-54,964	-64,743	-73,937
Final Energy Consumption	14,484	23,519	24,403	28,660	26,784	29,541	30,046	30,841
Industry	4,072	9,076	9,718	13,942	12,305	14,635	15,599	16,104
Transport	-	-	65	86	90	91	91	93
Residential	7,113	8,894	8,522	8,567	8,388	8,472	8,442	8,630
Commerce & Public Services	3,300	5,549	6,099	6,066	6,001	6,344	5,914	6,014
<b>Electricity</b>								
Power Generation	72,547	93,482	99,187	101,548	94,197	99,624	95,536	95,641
Thermal	44,203	53,165	58,509	64,009	55,278	57,381	64,824	77,334
Hydro	7,827	7,479	7,037	6,656	6,824	7,827	7,365	6,865
Nuclear	17,008	27,776	25,455	21,868	23,858	25,396	14,153	1,563
Others	3,508	5,062	8,186	9,015	8,237	9,020	9,193	9,879
Final Energy Consumption	64,052	82,913	86,656	89,104	82,452	88,170	84,834	84,702
Industry	31,971	36,332	36,936	38,428	32,656	35,878	34,785	34,246
Transport	1,696	1,875	1,851	1,846	1,802	1,829	1,727	1,737
Residential	16,074	22,665	23,920	24,845	24,402	25,886	24,936	25,025
Commerce & Public Services	14,041	21,711	23,624	23,656	23,298	24,261	23,080	23,385
Others	270	328	325	329	294	316	306	309

### Major Economic Indicators of Japan

	1990	2000	2005	2008	2009	2010	2011	2012
Population (Millions) *1	123.54	126.87	127.77	127.70	127.56	127.45	127.82	127.56
Gross Domestic Product *3								
Real Term (Billions of 2010 Price and 2010 USD)	4,552.93	5,093.00	5,404.83	5,558.31	5,251.10	5,495.39	5,470.51	5,549.66
Real Term (Billions of 2010 Price and 2010 PPP)	3,581.34	4,006.15	4,251.44	4,372.17	4,130.52	4,322.67	4,303.10	4,365.36
Nominal (Billions of Current USD)	3,103.70	4,731.20	4,571.87	4,849.18	5,035.14	5,495.39	5,905.63	5,937.77
GDP per Capita *3								
Real Term (2010 Price and 2010 USD)	36,855	40,143	42,300	43,525	41,166	43,118	42,799	43,506
Real Term (2010 Price and 2010 PPP)	28,990	31,577	33,273	34,237	32,381	33,916	33,666	34,222
Nominal (Current USD)	25,124	37,292	35,781	37,972	39,473	43,118	46,204	46,548
Nominal GDP & its Components (Billions of Current JPY) *1								
Gross Domestic Product	449,392	509,860	503,903	501,209	471,139	482,384	471,311	473,777
Household Final Consumption Expenditure, etc.	239,586	288,167	291,133	292,055	282,942	285,867	284,244	287,697
General Government Final Consumption Expenditure	59,728	86,308	92,468	93,019	93,820	95,129	96,117	96,940
Gross Fixed Capital Formation	143,629	128,515	112,574	112,462	97,991	96,431	97,107	100,068
Stock Change	3,296	-517	635	2,700	-5,340	-806	-1,883	-1,546
Exports of Goods and Services	46,234	55,459	72,122	88,770	59,814	73,183	71,298	69,775
Imports of Goods and Services	42,149	48,073	65,028	87,798	58,088	67,419	75,572	79,157
Real GDP & its Components (Billions of 2000 JPY) *1								
Gross Domestic Product	424,479	474,830	503,903	518,212	489,571	512,346	510,026	517,406
Household Final Consumption Expenditure, etc.	238,655	273,823	291,133	294,396	293,542	300,693	301,184	307,036
General Government Final Consumption Expenditure	61,161	82,991	92,468	93,403	95,525	97,335	98,537	100,221
Gross Fixed Capital Formation	126,529	119,223	112,574	109,923	98,282	98,043	99,399	102,776
Stock Change	N.A.							
Exports of Goods and Services	34,651	54,196	72,122	87,405	66,257	82,399	82,106	81,985
Imports of Goods and Services	38,234	54,932	65,028	69,795	58,829	65,338	69,199	72,882
Sectional Shares of Real GDP (%) *1								
Agriculture, Fishery and Forest	N.A.	1.6	1.2	1.3	1.3	1.2	1.2	1.2
Industry	33.6	28.8	27.9	29.1	26.2	28.6	27.9	27.0
Services, etc.	N.A.	69.3	70.5	69.3	72.1	69.8	70.4	71.3
Industrial Production Index (2010=100) *2	105.0	104.3	106.1	110.1	87.0	100.0	97.1	97.7
External Trade (Billions of Current USD) *1								
Exports, f.o.b.	287.581	479.249	594.941	781.412	580.719	769.839	823.184	798.567
Imports, c.i.f.	235.368	379.511	515.866	762.534	551.981	694.059	855.380	885.845
Balance of Payments (Billions of Current USD) *2								
Trade Balance	N.A.	N.A.	106.964	55.277	58.092	108.524	-4.474	-53.484
Current Account	N.A.	N.A.	165.783	159.363	147.017	203.916	119.064	60.860
Overall Balance	N.A.	N.A.	38.224	-18.727	-5.914	3.352	138.367	-42.347
Foreign Exchange Rate (JPY/USD) *1	144.79	107.77	110.22	103.36	93.57	87.78	79.81	79.79
Purchasing Power Parity (JPY/International Dollar) *1	188.98	154.98	129.55	116.85	115.44	111.59	107.45	105.17
Price Indices								
GDP Deflator (2005=100) *3	105.9	107.4	100.0	96.7	96.2	94.2	92.4	91.6
Wholesale Price Index (2010=100) *2	107.7	99.5	97.2	105.7	100.1	100.0	101.5	100.6
Consumer Price Index (2010=100) *2	94.5	102.7	100.4	102.1	100.7	100.0	99.7	99.7
Growth Rate (%) *3								
Real GDP	5.57	2.26	1.30	-1.04	-5.53	4.65	-0.45	1.45
Population	0.34	0.17	0.01	-0.05	-0.11	-0.08	0.29	-0.20
Price								
Wholesale Price Index	1.5	0.0	1.7	4.6	-5.3	-0.1	1.5	-0.9
Consumer Price Index	3.0	-0.7	-0.3	1.4	-1.3	-0.7	-0.3	0.0

Source : \*1 : "World Development Indicators", World Bank

\*2 : "International Financial Statistics", International Monetary Fund

\*3 : Calculated from \*1 and \*2 by the Coordinating Agency

Note : N.A. means "not available"  
: JPY means Yen, USD means United States Dollar  
: PPP means Purchasing Power Parity

## Energy Price of Japan in 2012

### Currency Exchange Rate

	Local currency / US Dollar	82.64
Local Currency Unit		Yen

### IMPORT PRICES

### WHOLESALE PRICES

### CONSUMER PRICES

	Unit	Amount		Unit	Amount		Unit	Amount
<b>Coal and Coal Products</b>			<b>Coal and Coal Products</b>			<b>Coal and Coal Products</b>		
Coking Coal	Yen/ton	14,319	Coking Coal			Coking Coal		
Anthracite			Anthracite			Anthracite		
Other bituminous coal	Yen/ton	10,493	Other bituminous coal			Other bituminous coal		
Sub-bituminous Coal			Sub-bituminous Coal			Sub-bituminous Coal		
Lignite			Lignite			Lignite		
Peat			Peat			Peat		
Patent Fuel			Patent Fuel			Patent Fuel		
Coke			Coke			Coke		
Coal Tar			Coal Tar			Coal Tar		
BKB/PB			BKB/PB			BKB/PB		
			Gas Works Gas			Gas Works Gas		
<b>Oil and Oil Products</b>			<b>Oil and Oil Products</b>			<b>Oil and Oil Products</b>		
Crude Oil	Yen/kL	59,358	Crude Oil			Crude Oil		
Natural Gas Liquids			Natural Gas Liquids			Natural Gas Liquids		
Ethane			Ethane			Ethane		
LPG	Yen/ton	80,213	LPG	Yen/kg	146.8	LPG	Yen/m3	750.6
Naphtha	Yen/kL	55,253	Naphtha	Yen/kL	63,156	Naphtha		
Motor Gasoline			Motor Gasoline	Yen/kL	133,880	Motor Gasoline	Yen/L	149.0
Aviation Gasoline			Aviation Gasoline			Aviation Gasoline		
Gasoline Type Jet Fuel			Gasoline Type Jet Fuel			Gasoline Type Jet Fuel		
Kerosene Type Jet Fuel			Kerosene Type Jet Fuel			Kerosene Type Jet Fuel		
Other Kerosene			Other Kerosene	Yen/kL	80,500	Other Kerosene	Yen/L	100.6
Gas/Diesel Oil			Gas/Diesel Oil	Yen/kL	111,244	Gas/Diesel Oil	Yen/L	129.0
Fuel Oil	Yen/kL	64,234	Fuel Oil	Yen/kL	56,634	Fuel Oil		
White Spirit SBP			White Spirit SBP			White Spirit SBP		
Lubricants			Lubricants			Lubricants		
Bitumen			Bitumen			Bitumen		
Paraffin Waxes			Paraffin Waxes			Paraffin Waxes		
Petroleum Coke			Petroleum Coke			Petroleum Coke		
<b>Natural Gas</b>			<b>Natural Gas</b>			<b>Natural Gas</b>		
Natural Gas			Natural Gas			Natural Gas		
Liquefied Natural Gas	Yen/ton	71,538	Liquefied Natural Gas			Liquefied Natural Gas		
Compressed Natural Gas			Compressed Natural Gas			Compressed Natural Gas		
<b>Electricity</b>			<b>Electricity</b>			<b>Electricity</b>		
Electricity			Electricity			Industrial		
						Commercial		
						Residential		
						Others		
<b>Other Energy Products</b>			<b>Other Energy Products</b>			<b>Other Energy Products</b>		

### 3.9 Republic of Korea

## Energy Balance Table of Republic of Korea

	Coal	Coal Products	Crude Oil & NGL	Petroleum Products					Gas/Diesel Oil
				Total	Gasoline	Naphtha	Jet Fuel	Kerosene	
<b>2012</b>									
Indigenous Production	932	-	658	-	-	-	-	-	-
Import	75,318	253	131,062	37,435	15	25,212	-	19	915
Export	-	-	-356	-58,465	-7,908	-4,041	-12,270	-1,005	-24,062
International Marine Bunkers	-	-	-	-8,524	-	-	-	-	-829
International Aviation Bunkers	-	-	-	-4,050	-	-	-4,050	-	-
Stock Changes	59	-	-928	318	-126	-393	-78	379	314
<b>Total Primary Energy Supply</b>	<b>76,309</b>	<b>253</b>	<b>130,436</b>	<b>-33,285</b>	<b>-8,019</b>	<b>20,778</b>	<b>-16,397</b>	<b>-607</b>	<b>-23,662</b>
Transfers	-	-	259	-733	16	21	175	-299	124
<b>Total Transformation Sector</b>	<b>-72,639</b>	<b>7,195</b>	<b>-129,410</b>	<b>121,116</b>	<b>16,305</b>	<b>15,755</b>	<b>17,521</b>	<b>4,240</b>	<b>42,754</b>
Main Activity Producer	-47,148	-812	-	-3,759	-	-	-	-64	-154
Autoproducers	-3,114	-2,897	-	-2,061	-	-1,892	-	-	-
Gas Processing	-	-	-	-725	-	-	-	-	-2
Petroleum Refineries	-	-	-137,830	135,497	16,305	25,088	17,521	4,304	42,910
Coal Transformation	-22,377	10,905	-	-	-	-	-	-	-
Other Transformation	-	-	8,420	-7,836	-	-7,441	-	-	-
Loss & Own Use	-	-2,897	-12	-4,960	-	-	-	-1	-25
Discrepancy	825	218	-1,273	2,595	322	1,348	-11	-359	23
<b>Total Final Energy Consumption</b>	<b>4,495</b>	<b>4,769</b>	<b>-</b>	<b>84,734</b>	<b>8,625</b>	<b>37,901</b>	<b>1,288</b>	<b>2,975</b>	<b>19,213</b>
<b>Industry Sector</b>	<b>4,495</b>	<b>3,954</b>	<b>-</b>	<b>4,145</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>262</b>	<b>1,171</b>
Iron and Steel	1,092	3,245	-	131	-	-	-	-	7
Chemical & Petrochemical	392	-	-	672	-	-	-	-	28
Non-metallic Minerals	2,724	-	-	603	-	-	-	8	114
Other Industries	287	709	-	2,739	-	-	-	254	1,022
<b>Transport Sector</b>	-	-	-	28,935	8,624	-	810	-	15,007
Domestic Air Transport	-	-	-	817	-	-	810	-	5
Road	-	-	-	27,721	8,624	-	-	-	14,704
Rail	-	-	-	168	-	-	-	-	168
Inland Waterways	-	-	-	228	-	-	-	-	130
Pipeline Transport	-	-	-	1	-	-	-	-	-
Non-specified Transport	-	-	-	-	-	-	-	-	-
<b>Other Sector</b>	-	816	-	8,695	1	-	478	2,682	3,035
Residential	-	816	-	2,903	-	-	-	1,720	481
Commerce and Public Services	-	-	-	2,726	-	-	18	631	393
Agriculture	-	-	-	1,166	-	-	-	252	866
Non-specified Others	-	-	-	1,900	1	-	460	78	1,295
<b>Non-energy</b>	-	-	-	42,959	-	37,901	-	31	-
<b>2011</b>									
Indigenous Production	959	-	648	-	-	-	-	-	-
Import	79,200	284	127,905	32,960	3	22,883	-	60	355
Export	-	-	-583	-54,304	-6,663	-4,295	-10,888	-1,188	-21,710
International Marine Bunkers	-	-	-	-8,757	-	-	-	-	-878
International Aviation Bunkers	-	-	-	-4,048	-	-	-4,048	-	-
Stock Changes	-207	-	-13	-169	78	22	-51	67	-86
<b>Total Primary Energy Supply</b>	<b>79,952</b>	<b>284</b>	<b>127,958</b>	<b>-34,317</b>	<b>-6,582</b>	<b>18,610</b>	<b>-14,987</b>	<b>-1,061</b>	<b>-22,320</b>
Transfers	-	-	87	-649	-30	-1	122	-299	190
<b>Total Transformation Sector</b>	<b>-73,853</b>	<b>6,845</b>	<b>-126,089</b>	<b>118,753</b>	<b>14,566</b>	<b>14,480</b>	<b>15,839</b>	<b>4,675</b>	<b>40,497</b>
Main Activity Producer	-48,087	-1,327	-	-2,536	-	-	-	-72	-81
Autoproducers	-3,129	-3,038	-	-1,899	-	-1,763	-	-	-1
Gas Processing	-	-	-	-640	-	-	-	-	-1
Petroleum Refineries	-	-	-134,553	131,765	14,566	23,683	15,839	4,746	40,580
Coal Transformation	-22,637	11,210	-	-	-	-	-	-	-
Other Transformation	-	-	8,464	-7,936	-	-7,439	-	-	-
Loss & Own Use	-	-2,764	-19	-5,396	-	-	-	-1	-3
Discrepancy	-1,040	11	-1,937	4,004	733	741	-2	123	252
<b>Total Final Energy Consumption</b>	<b>5,059</b>	<b>4,377</b>	<b>-</b>	<b>82,396</b>	<b>8,686</b>	<b>33,830</b>	<b>973</b>	<b>3,437</b>	<b>18,616</b>
<b>Industry Sector</b>	<b>5,059</b>	<b>3,538</b>	<b>-</b>	<b>5,191</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>328</b>	<b>1,286</b>
Iron and Steel	1,277	2,925	-	223	-	-	-	2	5
Chemical & Petrochemical	362	-	-	935	-	-	-	-	71
Non-metallic Minerals	3,002	-	-	862	-	-	-	13	95
Other Industries	417	613	-	3,171	-	-	-	313	1,115
<b>Transport Sector</b>	-	-	-	28,190	8,685	-	484	6	14,371
Domestic Air Transport	-	-	-	490	-	-	484	-	5
Road	-	-	-	27,288	8,685	-	-	6	14,050
Rail	-	-	-	168	-	-	-	-	168
Inland Waterways	-	-	-	243	-	-	-	-	149
Pipeline Transport	-	-	-	1	-	-	-	-	-
Non-specified Transport	-	-	-	-	-	-	-	-	-
<b>Other Sector</b>	-	838	-	9,244	1	-	489	3,070	2,959
Residential	-	838	-	3,206	-	-	-	1,946	493
Commerce and Public Services	-	-	-	2,965	-	-	1	760	390
Agriculture	-	-	-	1,173	-	-	-	272	833
Non-specified Others	-	-	-	1,900	1	-	488	92	1,242
<b>Non-energy</b>	-	-	-	39,771	-	33,830	-	33	-

unit: ktoe

Fuel Oil	LPG	Refinery Gas	Ethane	Other Products	Gas	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
-	-	-	-	-	391	341	39,175	265	4,277	-	-	46,040
4,166	7,102	-	-	6	42,853	-	-	-	-	-	-	286,922
-4,342	-174	-	-	-4,663	-	-	-	-	-	-	-	-58,820
-7,694	-	-	-	-	-	-	-	-	-	-	-	-8,524
-	-	-	-	-	-	-	-	-	-	-	-	-4,050
82	297	-	-	-159	1,746	-	-	-	-	-	-	1,194
-7,788	7,225	-	-	-4,816	44,990	341	39,175	265	4,277	-	-	262,763
-212	-80	-485	-	7	-	-	-	-	-	-	-	-474
12,008	738	3,089	-	8,706	-21,655	-341	-39,175	-174	-1,590	45,660	5,243	-85,769
-3,542	-	-	-	-	-21,543	-341	-39,175	-156	-131	42,998	1,844	-68,223
-	-	-	-	-168	-676	-	-	-18	-1,157	2,662	3,399	-3,861
-	-723	-	-	-	563	-	-	-	-	-	-	-163
15,549	1,694	3,089	-	9,037	-	-	-	-	-	-	-	-2,332
-	-	-	-	-	-	-	-	-	-	-	-	-11,472
-	-232	-	-	-162	-	-	-	-	-303	-	-	281
-1,163	-107	-3,574	-	-90	-237	-	-	-	-	-4,598	-143	-12,847
-215	566	970	-	-49	-194	-	-	-0	48	339	-126	2,430
2,630	8,343	-	-	3,758	22,904	-	-	92	2,735	41,401	4,974	166,103
1,861	735	-	-	115	9,292	-	-	2	1,890	21,555	2,128	47,461
50	74	-	-	-	1,584	-	-	-	5	4,631	12	10,698
643	-	-	-	-	2,283	-	-	-	45	3,911	1,291	8,594
345	21	-	-	115	589	-	-	-	674	951	1	5,542
823	640	-	-	-	4,836	-	-	2	1,167	12,062	825	22,627
109	4,385	-	-	-	1,149	-	-	-	-	194	-	30,277
2	-	-	-	-	-	-	-	-	-	-	-	817
9	4,384	-	-	-	1,149	-	-	-	-	-	-	28,870
-	-	-	-	-	-	-	-	-	-	194	-	361
97	1	-	-	-	-	-	-	-	-	-	-	228
1	-	-	-	-	-	-	-	-	-	-	-	1
-	-	-	-	-	-	-	-	-	-	-	-	-
660	1,839	-	-	-	12,463	-	-	89	845	19,652	2,846	45,406
130	571	-	-	-	9,106	-	-	21	69	5,495	1,884	20,293
445	1,240	-	-	-	3,351	-	-	61	743	13,119	962	20,964
46	2	-	-	-	5	-	-	7	29	826	-	2,033
40	26	-	-	-	-	-	-	-	3	213	-	2,116
-	1,384	-	-	3,643	-	-	-	-	-	-	-	42,959
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	406	395	40,321	228	3,857	-	-	46,814
2,350	7,303	-	-	5	41,902	-	-	-	-	-	-	282,252
-5,264	-89	-	-	-4,207	-	-	-	-	-	-	-	-54,887
-7,879	-	-	-	-	-	-	-	-	-	-	-	-8,757
-	-	-	-	-	-	-	-	-	-	-	-	-4,048
-179	-58	-	-	40	-724	-	-	-	-	-	-	-1,112
-10,971	7,156	-	-	-4,162	41,584	395	40,321	228	3,857	-	-	260,263
134	-101	-556	-	-108	-	-	-	-	-	-	-	-562
16,437	663	3,086	-	8,511	-19,531	-395	-40,321	-153	-1,404	44,725	4,860	-86,562
-2,383	-	-	-	-	-19,457	-395	-40,321	-135	-137	42,171	1,707	-68,517
-	-	-	-	-135	-580	-	-	-18	-985	2,553	3,153	-3,942
-	-639	-	-	-	506	-	-	-	-	-	-	-135
18,820	1,799	3,086	-	8,646	-	-	-	-	-	-	-	-2,788
-	-	-	-	-	-	-	-	-	-	-	-	-11,427
-	-497	-	-	-	-	-	-	-	-283	-	-	245
-1,632	-69	-3,642	-	-48	-252	-	-	-	-	-4,485	-138	-13,055
-379	1,407	1,112	-	17	-225	-	-	-0	1	233	-225	822
3,590	9,055	-	-	4,210	21,576	-	-	75	2,453	40,473	4,497	160,905
2,683	721	-	-	173	8,276	-	-	2	1,698	21,160	2,432	47,355
141	74	-	-	-	1,560	-	-	-	5	4,589	4	10,584
864	-	-	-	-	2,418	-	-	-	47	3,829	1,519	9,112
556	26	-	-	173	472	-	-	-	713	1,028	0	6,078
1,122	621	-	-	-	3,825	-	-	2	932	11,713	908	21,582
104	4,540	-	-	-	1,074	-	-	-	-	193	-	29,457
1	-	-	-	-	-	-	-	-	-	-	-	490
7	4,540	-	-	-	1,074	-	-	-	-	193	-	28,362
95	-	-	-	-	-	-	-	-	-	-	-	243
1	-	-	-	-	-	-	-	-	-	-	-	1
-	-	-	-	-	-	-	-	-	-	-	-	-
803	1,922	-	-	-	12,226	-	-	74	755	19,120	2,065	44,321
176	590	-	-	-	8,906	-	-	20	52	5,320	1,804	20,146
507	1,307	-	-	-	3,316	-	-	48	680	12,890	261	20,160
66	2	-	-	-	4	-	-	5	23	723	-	1,928
54	23	-	-	-	-	-	-	-	-	186	-	2,087
-	1,872	-	-	4,037	-	-	-	-	-	-	-	39,771

**Major Energy Indicators of Republic of Korea**

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	1990	2000	2005	2008	2009	2010	2011	2012
<b>Total</b>								
Primary Energy Supply	93,089	188,168	210,123	226,857	229,038	249,791	260,263	262,763
Indigenous Production	22,622	34,444	42,928	44,643	44,178	44,757	46,814	46,040
Import	73,944	206,677	211,295	240,064	242,424	266,843	282,252	286,922
Export	-3,795	-40,939	-35,740	-44,955	-44,329	-45,797	-54,887	-58,820
Final Energy Consumption	64,908	127,112	140,460	146,360	147,440	157,448	160,905	166,103
Industry	19,263	38,473	39,065	42,424	39,932	45,135	47,355	47,461
Transport	14,573	26,266	29,187	28,852	29,302	29,950	29,457	30,277
Residential	12,942	15,036	18,411	18,796	18,641	19,861	20,146	20,293
Commerce & Public Services	8,692	17,211	19,227	18,496	19,212	20,503	20,160	20,964
Others	9,438	30,125	34,570	37,792	40,352	41,999	43,786	47,108
<b>Coal, Coal Products</b>								
Primary Energy Supply	25,558	41,952	49,545	62,767	64,844	73,426	80,236	76,562
Indigenous Production	7,576	3,638	1,261	1,276	1,159	959	959	932
Import	15,725	39,137	46,929	61,507	62,923	72,949	79,484	75,571
Export	-	-	-	-	-	-	-	-
Transformation Sector	-13,163	-31,417	-41,187	-51,398	-55,738	-61,139	-67,007	-65,443
Power Generation	-5,955	-24,844	-33,117	-42,963	-47,934	-52,203	-55,581	-53,971
Final Energy Consumption	11,717	9,071	7,747	9,431	7,772	9,293	9,435	9,265
Industry	3,052	8,505	6,794	8,378	6,879	8,438	8,597	8,449
Transport	-	-	-	-	-	-	-	-
Residential	8,638	566	954	1,053	893	855	838	816
Commerce & Public Services	27	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-
<b>Crude Oil</b>								
Primary Energy Supply	43,241	126,497	118,757	119,995	114,941	120,924	127,958	130,436
Indigenous Production	-	670	492	491	635	642	648	658
Import	42,674	125,813	117,332	118,845	117,627	121,558	127,905	131,062
Export	-	-99	-3	-243	-324	-481	-583	-356
Transformation Sector	-42,523	-123,380	-118,501	-118,262	-114,578	-118,717	-126,089	-129,410
Petroleum Refineries	-42,523	-128,555	-124,519	-125,977	-122,562	-126,025	-134,553	-137,830
<b>Petroleum Products</b>								
Primary Energy Supply	6,495	-27,455	-26,316	-30,431	-24,417	-25,879	-34,317	-33,285
Import	12,841	24,629	20,897	26,340	31,641	33,027	32,960	37,435
Export	-3,795	-40,840	-35,738	-44,712	-44,005	-45,315	-54,304	-58,465
Transformation Sector	39,028	112,577	110,491	111,889	107,435	111,426	118,753	121,116
Power Generation	-4,512	-8,044	-7,109	-4,332	-5,032	-5,060	-4,435	-5,820
Petroleum Refineries	43,540	125,628	123,435	123,769	120,258	123,763	131,765	135,497
Final Energy Consumption	43,661	79,877	79,650	77,935	79,941	82,201	82,396	84,734
Industry	10,883	10,974	7,972	6,463	5,831	5,902	5,191	4,145
Transport	14,486	26,091	28,639	27,946	28,220	28,738	28,190	28,935
Residential	1,916	3,878	3,181	3,150	2,932	2,981	3,206	2,903
Commerce & Public Services	7,064	9,277	5,915	3,310	3,396	3,448	2,965	2,726
Others	9,313	29,658	33,943	37,065	39,562	41,132	42,845	46,025
<b>Natural Gas</b>								
Primary Energy Supply	2,725	17,010	27,376	31,821	31,713	38,631	41,584	44,990
Indigenous Production	-	-	441	195	449	485	406	391
Import	2,681	17,071	26,111	33,346	30,211	39,290	41,902	42,853
Export	-	-	-	-	-	-	-	-
Transformation Sector	-2,037	-5,757	-11,076	-14,088	-12,169	-17,640	-19,531	-21,655
Power Generation	-2,037	-5,757	-11,076	-14,289	-12,394	-18,006	-20,037	-22,218
Final Energy Consumption	673	10,927	15,986	17,582	18,123	20,586	21,576	22,904
Industry	73	2,881	4,168	5,472	5,633	7,092	8,276	9,292
Transport	-	-	324	715	895	1,023	1,074	1,149
Residential	465	6,230	8,374	8,237	8,267	8,940	8,906	9,106
Commerce & Public Services	136	1,806	3,096	3,153	3,324	3,526	3,316	3,351
Others	-	11	25	5	4	4	4	5
<b>Electricity</b>								
Power Generation	9,062	24,813	33,357	38,178	38,844	42,718	44,725	45,660
Thermal	3,921	14,880	19,932	24,123	24,989	28,449	29,614	30,800
Hydro	547	345	316	264	242	317	395	341
Nuclear	4,594	9,465	12,750	13,113	12,836	12,908	13,440	13,058
Others	0	123	359	678	777	1,044	1,275	1,461
Final Energy Consumption	8,117	22,628	30,756	34,365	34,890	38,644	40,473	41,401
Industry	4,970	12,934	15,820	17,225	17,142	19,618	21,160	21,555
Transport	87	175	224	191	187	188	193	194
Residential	1,525	3,191	4,375	4,836	4,961	5,271	5,320	5,495
Commerce & Public Services	1,409	5,873	9,734	11,393	11,814	12,703	12,890	13,119
Others	125	456	603	721	786	864	909	1,038

**Major Economic Indicators of Republic of Korea**

	1990	2000	2005	2008	2009	2010	2011	2012
Population (Millions) *1	42.87	47.01	48.14	48.95	49.18	49.41	49.78	50.00
Gross Domestic Product *3								
Real Term (Billions of 2010 Price and 2010 USD)	377.05	710.04	894.71	1,020.51	1,027.73	1,094.50	1,134.80	1,160.81
Real Term (Billions of 2010 Price and 2010 PPP)	517.85	975.18	1,228.81	1,401.59	1,411.51	1,503.21	1,558.55	1,594.28
Nominal (Billions of Current USD)	284.76	561.63	898.14	1,002.22	901.93	1,094.50	1,202.46	1,222.81
GDP per Capita *3								
Real Term (2010 Price and 2010 USD)	8,795	15,105	18,586	20,849	20,896	22,151	22,796	23,214
Real Term (2010 Price and 2010 PPP)	12,080	20,745	25,527	28,634	28,700	30,423	31,309	31,883
Nominal (Current USD)	6,642	11,948	18,658	20,475	18,339	22,151	24,156	24,454
Nominal GDP & its Components (Billions of Current KRW) *1								
Gross Domestic Product	201,540	635,185	919,797	1,104,492	1,151,708	1,265,308	1,332,681	1,377,457
Household Final Consumption Expenditure, etc.	111,459	302,707	461,562	572,381	593,564	636,713	686,365	718,465
General Government Final Consumption Expenditure	22,054	110,086	140,003	167,543	176,323	183,109	187,158	193,474
Gross Fixed Capital Formation	69,234	200,825	283,859	346,612	360,697	385,924	403,045	407,307
Stock Change	801	8,415	11,976	18,075	-32,856	19,264	36,191	19,722
Exports of Goods and Services	52,187	222,371	338,574	551,820	547,634	625,309	742,936	776,063
Imports of Goods and Services	54,195	209,219	316,177	551,938	493,655	585,010	723,014	737,573
Real GDP & its Components (Billions of 2000 KRW) *1								
Gross Domestic Product	435,897	820,844	1,034,338	1,179,771	1,188,118	1,265,308	1,311,893	1,341,966
Household Final Consumption Expenditure, etc.	263,514	448,809	545,553	607,973	612,016	636,713	654,440	667,304
General Government Final Consumption Expenditure	70,285	110,086	140,003	167,543	176,323	183,109	187,158	193,474
Gross Fixed Capital Formation	181,152	283,424	338,300	364,663	365,746	385,924	389,124	387,240
Stock Change	-42,875	13,196	13,002	26,604	-22,746	19,265	30,158	28,883
Exports of Goods and Services	59,083	250,691	410,113	556,668	554,856	625,309	719,943	756,558
Imports of Goods and Services	99,319	278,478	413,372	535,066	498,917	585,010	668,931	685,009
Sectional Shares of Real GDP (%) *1								
Agriculture, Fishery and Forest	4.8	3.0	2.5	2.4	2.5	2.2	2.1	2.0
Industry	31.2	31.0	32.8	33.6	33.4	34.6	34.9	34.8
Services, etc.	59.5	55.4	54.6	54.3	54.7	53.6	53.3	53.6
Industrial Production Index (2010=100) *2	22.9	53.4	71.9	86.1	86.0	100.0	106.0	107.4
External Trade (Billions of Current USD) *1								
Exports, f.o.b.	65.016	172,267	284,419	422,007	363,534	466,384	555,214	547,870
Imports, c.i.f.	69.844	160,481	261,238	435,275	323,085	425,212	524,413	519,584
Balance of Payments (Billions of Current USD) *2								
Trade Balance	N.A.	N.A.	32,313	12,198	47,814	47,915	29,090	49,406
Current Account	N.A.	N.A.	12,655	3,190	33,593	28,850	18,656	50,835
Overall Balance	N.A.	N.A.	13,689	-46,638	73,309	32,568	8,181	12,395
Foreign Exchange Rate (KRW/USD) *1	707.76	1,130.96	1,024.12	1,102.05	1,276.93	1,156.06	1,108.29	1,126.47
Purchasing Power Parity (KRW/International Dollar) *1	545.43	745.58	788.92	785.72	822.21	841.74	854.59	865.66
Price Indices								
GDP Deflator (2010=100) *3	46.2	77.4	88.9	93.6	96.9	100.0	101.6	102.6
Producer Price Index (2010=100)*2	56.3	79.1	86.9	96.5	96.3	100.0	106.7	107.5
Consumer Price Index (2010=100) *2	44.5	73.1	86.1	94.5	97.1	100.0	104.0	106.3
Growth Rate (%) *3								
Real GDP	9.30	8.83	3.92	2.83	0.71	6.50	3.68	2.29
Population	0.99	0.84	0.21	0.72	0.48	0.46	0.75	0.45
Price								
Producer Price Index	4.2	2.0	2.1	8.5	-0.2	3.8	6.7	0.7
Consumer Price Index	8.6	2.3	2.8	4.7	2.8	3.0	4.0	2.2

Source : \*1 : "World Development Indicators", World Bank

\*2 : "International Financial Statistics", International Monetary Fund

\*3 : Calculated from \*1 and \*2 by the Coordinating Agency

Note : N.A. means "not available"

: KRW means Won, USD means United States Dollar

: PPP means Purchasing Power Parity

### 3.10 Malaysia

## Energy Balance Table of Malaysia

	Coal	Coal Products	Crude Oil & NGL	Petroleum Products				
				Total	Gasoline	Naphtha	Jet Fuel	Kerosene
<b>2012</b>								
Indigenous Production	1,860	-	31,321	-	-	-	-	-
Import	14,220	-	10,003	12,725	5,918	-	346	5
Export	-232	-	-12,086	-13,967	-2,078	-	-1,008	-703
International Marine Bunkers	-	-	-	-57	-	-	-	-3
International Aviation Bunkers	-	-	-	-2,017	-	-	-2,017	-
Stock Changes	-52	-	967	282	175	-	-767	1
<b>Total Primary Energy Supply</b>	<b>15,796</b>	-	<b>30,204</b>	<b>-3,034</b>	<b>4,016</b>	-	<b>-3,445</b>	<b>-698</b>
Transfers	-	-	-2,206	2,036	-	-	-	-
<b>Total Transformation Sector</b>	<b>-14,138</b>	-	<b>-27,650</b>	<b>25,501</b>	<b>4,617</b>	-	<b>3,918</b>	<b>691</b>
Main Activity Producer	-14,138	-	-	-1,361	-	-	-	-811
Autoproducers	-	-	-	-	-	-	-	-
Gas Processing	-	-	-	715	-	-	-	37
Petroleum Refineries	-	-	-27,749	26,147	4,617	-	3,918	654
Coal Transformation	-	-	-	-	-	-	-	10,132
Other Transformation	-	-	99	-	-	-	-	-
Loss & Own Use	-	-	-	-1,753	-	-	-	-
Discrepancy	86	-	-348	-34	286	-	31	43
<b>Total Final Energy Consumption</b>	<b>1,744</b>	-	-	<b>22,716</b>	<b>8,919</b>	-	<b>504</b>	<b>37</b>
<b>Industry Sector</b>	<b>1,744</b>	-	-	<b>4,528</b>	<b>216</b>	-	-	<b>26</b>
Iron and Steel	-	-	-	-	-	-	-	-
Chemical & Petrochemical	-	-	-	-	-	-	-	-
Non-metallic Minerals	1,744	-	-	-	-	-	-	-
Other Industries	-	-	-	4,528	216	-	-	26
<b>Transport Sector</b>	-	-	-	<b>14,835</b>	<b>8,617</b>	-	<b>504</b>	-
Domestic Air Transport	-	-	-	504	-	-	504	-
Road	-	-	-	8,617	8,617	-	-	-
Rail	-	-	-	-	-	-	-	-
Inland Waterways	-	-	-	-	-	-	-	-
Pipeline Transport	-	-	-	-	-	-	-	-
Non-specified Transport	-	-	-	5,714	-	-	-	5,709
<b>Other Sector</b>	-	-	-	<b>2,614</b>	<b>86</b>	-	-	<b>11</b>
Residential	-	-	-	714	-	-	-	11
Commerce and Public Services	-	-	-	877	-	-	-	225
Agriculture	-	-	-	937	-	-	-	0
Non-specified Others	-	-	-	86	86	-	-	-
<b>Non-energy</b>	-	-	-	<b>739</b>	-	-	-	-
<b>2011</b>								
Indigenous Production	1,838	-	30,963	-	-	-	-	-
Import	13,330	-	9,322	11,580	4,169	-	496	148
Export	-141	-	-11,524	-9,421	-0	-	-682	-702
International Marine Bunkers	-	-	-	-201	-	-	-	-14
International Aviation Bunkers	-	-	-	-	-	-	-	-
Stock Changes	-372	-	-1,693	137	13	-	-825	5
<b>Total Primary Energy Supply</b>	<b>14,655</b>	-	<b>27,068</b>	<b>2,095</b>	<b>4,182</b>	-	<b>-1,011</b>	<b>-549</b>
Transfers	-	-	-2,638	2,434	-	-	-	-
<b>Total Transformation Sector</b>	<b>-13,013</b>	-	<b>-24,777</b>	<b>22,379</b>	<b>3,599</b>	-	<b>3,457</b>	<b>452</b>
Main Activity Producer	-13,013	-	-	-2,084	-	-	-	-981
Autoproducers	-	-	-	-	-	-	-	-
Gas Processing	-	-	-	573	-	-	-	33
Petroleum Refineries	-	-	-24,798	23,890	3,599	-	3,457	419
Coal Transformation	-	-	-	-	-	-	-	8,946
Other Transformation	-	-	21	-	-	-	-	-
Loss & Own Use	-	-	-	-3,386	-	-	-	-
Discrepancy	118	-	347	421	374	-	107	115
<b>Total Final Energy Consumption</b>	<b>1,759</b>	-	-	<b>23,943</b>	<b>8,155</b>	-	<b>2,553</b>	<b>19</b>
<b>Industry Sector</b>	<b>1,759</b>	-	-	<b>3,289</b>	<b>160</b>	-	-	<b>9</b>
Iron and Steel	-	-	-	-	-	-	-	-
Chemical & Petrochemical	-	-	-	-	-	-	-	-
Non-metallic Minerals	1,759	-	-	-	-	-	-	-
Other Industries	-	-	-	3,289	160	-	-	9
<b>Transport Sector</b>	-	-	-	<b>16,777</b>	<b>7,995</b>	-	<b>2,553</b>	-
Domestic Air Transport	-	-	-	-	-	-	-	-
Road	-	-	-	7,995	7,995	-	-	-
Rail	-	-	-	-	-	-	-	-
Inland Waterways	-	-	-	-	-	-	-	-
Pipeline Transport	-	-	-	-	-	-	-	-
Non-specified Transport	-	-	-	8,781	-	-	2,553	-
<b>Other Sector</b>	-	-	-	<b>2,699</b>	-	-	-	<b>10</b>
Residential	-	-	-	791	-	-	-	10
Commerce and Public Services	-	-	-	1,019	-	-	-	390
Agriculture	-	-	-	890	-	-	-	0
Non-specified Others	-	-	-	-	-	-	-	-
<b>Non-energy</b>	-	-	-	<b>1,178</b>	-	-	-	-

unit: ktoe

Fuel Oil	LPG	Refinery Gas	Ethane	Other Products	Gas	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
-	-	-	-	-	51,157	796	-	4	745	-	-	85,883
794	448	-	-	1,710	7,819	-	-	-	-	9	-	44,775
-1,017	-435	-	-	-3,418	-26,755	-	-	-	-25	-1	-	-53,067
-54	-	-	-	-0	-	-	-	-	-	-	-	-57
-	-	-	-	-	-	-	-	-	-	-	-	-2,017
-	-10	-	-	-623	-	-	-	-	-94	-	-	1,102
-277	3	-	-	-2,331	32,222	796	-	4	626	7	-	76,621
-	2,036	-	-	-	-	-	-	-	-	-	-	-170
1,058	930	197	-	4,642	-20,944	-796	-	-4	-626	11,554	-	-27,102
-550	-	-	-	-	-11,465	-796	-	-4	-346	11,025	-	-17,084
-	-	-	-	-	-1,723	-	-	-	-180	529	-	-1,375
-	228	-	-	324	-7,756	-	-	-	-	-	-	-7,041
1,608	702	197	-	4,318	-	-	-	-	-	-	-	-1,603
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-99	-	-	-
-18	-	-197	-	-1,537	-1,129	-	-	-	-	-995	-	-3,876
6	-76	-	-	-34	-2	-	-	-	-	-556	-	-853
769	2,892	-	-	739	10,147	-	-	-	-	10,011	-	44,619
737	1,558	-	-	-	4,530	-	-	-	-	4,509	-	15,310
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	1,744
737	1,558	-	-	-	4,530	-	-	-	-	4,509	-	13,566
5	-	-	-	-	291	-	-	-	-	21	-	15,146
-	-	-	-	-	-	-	-	-	-	-	-	504
-	-	-	-	-	291	-	-	-	-	-	-	8,908
-	-	-	-	-	-	-	-	-	-	21	-	21
-	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-	5,714
27	1,334	-	-	-	23	-	-	-	-	5,481	-	8,119
-	703	-	-	-	0	-	-	-	-	2,126	-	2,841
20	631	-	-	-	23	-	-	-	-	3,325	-	4,225
7	-	-	-	-	-	-	-	-	-	30	-	967
-	-	-	-	-	-	-	-	-	-	-	-	86
-	-	-	-	-	739	5,304	-	-	-	-	-	6,043
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	52,381	693	-	-	692	-	-	86,567
1,470	537	-	-	993	6,938	-	-	-	-	3	-	41,172
-340	-992	-	-	-2,255	-27,838	-	-	-	-44	-0	-	-48,968
-187	-	-	-	-0	-	-	-	-	-	-	-	-201
-	-	-	-	-	-	-	-	-	-	-	-	-
0	1	-	-	-599	-	-	-	-	-87	-	-	-2,015
943	-453	-	-	-1,861	31,481	693	-	-	561	3	-	76,555
-	2,434	-	-	-	-	-	-	-	-	-	-	-204
-532	879	1,659	-	4,825	-21,322	-693	-	-	-561	10,928	-	-27,059
-1,103	-	-	-	-	-10,912	-693	-	-	-540	10,486	-	-16,756
-	-	-	-	-	-1,711	-	-	-	-	442	-	-1,269
-	214	-	-	252	-8,699	-	-	-	-	-	-	-8,125
571	665	1,659	-	4,572	-	-	-	-	-	-	-	-909
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-21	-	-	-
-18	-	-1,623	-	-1,746	-1,695	-	-	-	-	-1,211	-	-6,292
20	31	-36	-	-40	1	-	-	-	-0	-484	-	402
414	2,892	-	-	1,178	8,465	-	-	-	-	9,236	-	43,402
321	1,518	-	-	-	4,274	-	-	-	-	4,045	-	13,368
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	1,759
321	1,518	-	-	-	4,274	-	-	-	-	4,045	-	11,609
39	-	-	-	-	270	-	-	-	-	18	-	17,065
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	270	-	-	-	-	-	-	8,266
-	-	-	-	-	-	-	-	-	-	18	-	18
-	-	-	-	-	-	-	-	-	-	-	-	-
39	-	-	-	-	-	-	-	-	-	-	-	8,781
54	1,373	-	-	-	38	-	-	-	-	5,172	-	7,909
-	781	-	-	-	6	-	-	-	-	1,974	-	2,771
37	592	-	-	-	31	-	-	-	-	3,172	-	4,222
17	-	-	-	-	-	-	-	-	-	26	-	916
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	1,178	3,883	-	-	-	-	-	5,060

**Major Energy Indicators of Malaysia**

	1990	2000	2005	2008	2009	2010	2011	ktoe 2012
<b>Total</b>								
Primary Energy Supply	20,436	47,724	65,655	73,348	70,428	69,622	76,555	76,621
Indigenous Production	46,437	75,596	93,545	91,845	87,718	83,399	86,567	85,883
Import	9,700	16,271	24,083	30,753	27,234	38,519	41,172	44,775
Export	-35,526	-43,531	-52,183	-48,398	-45,809	-52,418	-48,968	-53,067
Final Energy Consumption	13,140	29,676	38,243	41,922	40,804	41,439	43,402	44,619
Industry	5,297	11,507	15,619	16,185	15,359	14,281	13,368	15,310
Transport	5,386	12,071	15,293	16,394	16,117	16,826	17,065	15,146
Residential	733	1,654	2,183	2,683	2,543	2,655	2,771	2,841
Commerce & Public Services	889	2,214	2,951	3,522	3,793	4,296	4,222	4,225
Others	834	2,230	2,197	3,138	2,992	3,381	5,977	7,096
<b>Coal, Coal Products</b>								
Primary Energy Supply	1,355	2,308	6,822	9,496	10,547	14,601	14,655	15,796
Indigenous Production	70	242	430	791	1,348	1,511	1,838	1,860
Import	1,424	1,943	6,612	9,725	9,126	13,073	13,330	14,220
Export	-28	-19	-44	-206	-119	-62	-141	-232
Transformation Sector	-813	-1,495	-5,541	-8,069	-9,010	-12,951	-13,013	-14,138
Power Generation	-813	-1,495	-5,541	-8,069	-9,010	-12,951	-13,013	-14,138
Final Energy Consumption	513	991	1,348	1,713	1,613	1,826	1,759	1,744
Industry	513	991	1,348	1,713	1,613	1,826	1,759	1,744
Transport	-	-	-	-	-	-	-	-
Residential	-	-	-	-	-	-	-	-
Commerce & Public Services	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-
<b>Crude Oil</b>								
Primary Energy Supply	10,024	22,747	26,852	29,386	27,163	25,173	27,068	30,204
Indigenous Production	30,629	32,445	37,556	35,671	33,844	34,653	30,963	31,321
Import	2,244	7,709	8,179	8,571	5,840	8,115	9,322	10,003
Export	-22,949	-17,254	-18,994	-15,001	-12,445	-17,258	-11,524	-12,086
Transformation Sector	-9,980	-22,164	-24,487	-26,829	-26,302	-22,710	-24,777	-27,650
Petroleum Refineries	-9,980	-22,164	-24,487	-26,829	-26,497	-22,710	-24,798	-27,749
<b>Petroleum Products</b>								
Primary Energy Supply	1,954	-1,922	-199	-1,791	-8	2,312	2,095	-3,034
Import	6,031	6,619	7,961	7,918	7,243	10,359	11,580	12,725
Export	-3,913	-8,533	-8,435	-9,527	-8,420	-8,429	-9,421	-13,967
Transformation Sector	7,425	20,335	21,872	26,999	25,396	21,572	22,379	25,501
Power Generation	-2,989	-783	-573	-480	-588	-540	-2,084	-1,361
Petroleum Refineries	10,414	20,954	21,438	26,482	25,093	21,207	23,890	26,147
Final Energy Consumption	9,825	19,582	23,012	24,451	24,145	24,403	23,943	22,716
Industry	3,481	5,398	5,614	5,277	5,511	4,176	3,289	4,528
Transport	5,386	12,059	15,193	16,186	15,871	16,562	16,777	14,835
Residential	729	675	783	1,009	750	712	791	714
Commerce & Public Services	-	723	756	893	1,026	1,246	1,019	877
Others	229	727	666	1,085	988	1,707	2,068	1,762
<b>Natural Gas</b>								
Primary Energy Supply	6,761	23,990	31,681	35,571	32,050	26,932	31,481	32,222
Indigenous Production	15,395	42,308	55,042	54,693	51,650	46,628	52,381	51,157
Import	-	-	1,332	4,538	5,025	6,971	6,938	7,819
Export	-8,635	-17,725	-24,693	-23,660	-24,625	-26,668	-27,838	-26,755
Transformation Sector	-2,171	-18,624	-23,749	-26,930	-23,584	-17,805	-21,322	-20,944
Power Generation	-1,141	-12,038	-13,116	-14,594	-14,687	-13,578	-12,623	-13,188
Final Energy Consumption	1,087	3,840	6,940	7,772	6,760	6,217	8,465	10,147
Industry	473	2,313	5,286	5,508	4,517	4,285	4,274	4,530
Transport	-	7	95	193	234	245	270	291
Residential	4	4	5	6	2	6	6	0
Commerce & Public Services	4	12	23	31	24	30	31	23
Others	605	1,503	1,532	2,034	1,983	1,651	3,883	5,304
<b>Electricity</b>								
Power Generation	1,979	5,528	8,087	9,368	9,540	10,292	10,928	11,554
Thermal	1,636	4,927	7,570	8,677	8,858	9,686	9,695	10,228
Hydro	343	601	517	671	593	547	693	796
Nuclear	-	-	-	-	-	-	-	-
Others	-	-	-	19	89	59	540	530
Final Energy Consumption	1,715	5,263	6,944	7,986	8,286	8,993	9,236	10,011
Industry	830	2,805	3,371	3,687	3,719	3,994	4,045	4,509
Transport	-	4	5	15	12	18	18	21
Residential	-	975	1,395	1,668	1,792	1,937	1,974	2,126
Commerce & Public Services	885	1,478	2,172	2,598	2,743	3,020	3,172	3,325
Others	-	-	-	19	21	24	26	30

### Major Economic Indicators of Malaysia

	1990	2000	2005	2008	2009	2010	2011	2012
Population (Millions) *1	18.21	23.42	25.84	27.30	27.79	28.28	28.76	29.24
Gross Domestic Product *3								
Real Term (Billions of 2010 Price and 2010 USD)	79.40	157.75	198.85	233.97	230.42	247.53	260.23	274.90
Real Term (Billions of 2010 Price and 2010 PPP)	181.37	360.35	454.22	534.43	526.34	565.43	594.42	627.94
Nominal (Billions of Current USD)	44.02	93.79	143.53	230.81	202.26	247.53	289.04	304.73
GDP per Capita *3								
Real Term (2010 Price and 2010 USD)	4,360	6,736	7,694	8,569	8,292	8,754	9,049	9,402
Real Term (2010 Price and 2010 PPP)	9,959	15,386	17,576	19,575	18,940	19,997	20,669	21,476
Nominal (Current USD)	2,417	4,005	5,554	8,454	7,278	8,754	10,050	10,422
Nominal GDP & its Components (Billions of Current MYR) *1								
Gross Domestic Product	119.08	356.40	543.58	769.95	712.86	797.33	884.46	941.24
Household Final Consumption Expenditure, etc.	61.69	155.94	240.19	344.21	348.17	378.79	418.26	459.86
General Government Final Consumption Expenditure	16.43	36.23	62.37	88.58	93.02	97.48	115.07	127.20
Gross Fixed Capital Formation	39.35	90.14	121.24	158.38	156.66	179.79	197.18	241.73
Stock Change	-0.81	5.62	0.51	6.84	-29.52	5.96	8.66	0.83
Exports of Goods and Services	88.68	427.00	613.69	766.10	651.67	744.04	810.22	820.16
Imports of Goods and Services	86.24	358.53	494.42	594.16	507.14	608.73	664.93	708.55
Real GDP & its Components (Billions of 1987 MYR) *1								
Gross Domestic Product	217.05	431.23	543.58	639.57	629.89	676.65	711.35	751.47
Household Final Consumption Expenditure, etc.	110.54	171.08	240.19	307.47	309.17	330.39	352.87	381.92
General Government Final Consumption Expenditure	23.05	38.69	62.37	74.97	78.68	81.38	94.24	99.25
Gross Fixed Capital Formation	60.60	110.09	121.24	145.53	141.58	158.40	168.28	200.77
Stock Change	1.59	11.11	0.51	1.20	-8.68	8.13	2.12	5.63
Exports of Goods and Services	147.43	472.79	613.69	690.10	615.02	683.39	714.79	700.82
Imports of Goods and Services	126.16	372.53	494.42	579.69	505.89	585.03	620.96	636.92
Sectional Shares of Real GDP (%) *1								
Agriculture, Fishery and Forest	16.2	8.9	8.3	7.8	7.9	7.6	7.6	7.3
Industry	45.9	48.6	46.4	42.6	40.3	40.7	39.6	39.3
Services, etc.	37.9	42.5	45.4	49.6	51.7	51.7	52.8	53.4
Industrial Production Index (2010=100) *2	29.5	73.2	93.4	100.9	93.3	100.0	101.2	99.6
External Trade (Billions of Current USD) *1								
Exports, f.o.b.	29.452	98.229	140.980	199.516	157.433	198.612	228.086	227.388
Imports, c.i.f.	29.258	81.963	114.625	156.896	123.832	164.622	187.473	196.615
Balance of Payments (Billions of Current USD) *2								
Trade Balance	N.A.	N.A.	32.982	50.831	40.731	42.301	49.549	40.719
Current Account	N.A.	N.A.	19.980	38.914	31.801	26.998	33.508	18.638
Overall Balance	N.A.	N.A.	10.174	5.127	9.117	21.002	41.191	11.181
Foreign Exchange Rate (MYR/USD) *1	2.7049	3.8000	3.7871	3.3358	3.5245	3.2211	3.0600	3.0888
Purchasing Power Parity (MYR/International Dollar) *1	0.9941	1.2224	1.3167	1.4693	1.3707	1.4101	1.4593	1.4448
Price Indices								
GDP Deflator (2005=100) *3	54.9	82.6	100.0	120.4	113.2	117.8	124.3	125.3
Producer Price Index (2010=100) *2	50.4	69.0	82.4	102.2	94.7	100.0	109.0	109.0
Consumer Price Index (2010=100) *2	56.8	80.5	87.7	97.7	98.3	100.0	103.2	104.9
Growth Rate (%) *3								
Real GDP	9.01	8.86	5.33	4.83	-1.51	7.43	5.13	5.64
Population	2.85	2.29	1.89	1.82	1.79	1.75	1.71	1.67
Price								
Producer Price Index	0.9	3.1	6.9	10.2	-7.3	5.6	9.0	0.0
Consumer Price Index	2.6	1.5	3.0	5.4	0.6	1.7	3.2	1.7

Source : \*1 : "World Development Indicators", World Bank

\*2 : "International Financial Statistics", International Monetary Fund

\*3 : Calculated from \*1 and \*2 by the Coordinating Agency

Note : N.A. means "not available"

: MYR means Malaysian Ringgit, USD means United States Dollar

: PPP means Purchasing Power Parity

### **3.11 Mexico**

## Energy Balance Table of Mexico

	Coal	Coal Products	Crude Oil & NGL	Petroleum Products					Gas/Diesel Oil
				Total	Gasoline	Naphtha	Jet Fuel	Kerosene	
<b>2012</b>									
Indigenous Production	7,529	-	152,190	-	-	-	-	-	-
Import	4,128	248	485	32,388	17,277	45	159	-	6,685
Export	-151	-	-70,781	-7,384	-	-2,896	-	-	-132
International Marine Bunkers	-	-	-	-930	-	-	-	-	-830
International Aviation Bunkers	-	-	-	-2,901	-12	-	-2,889	-	-
Stock Changes	-2,322	32	-286	-775	-	-	4	-	48
<b>Total Primary Energy Supply</b>	<b>9,183</b>	<b>279</b>	<b>81,608</b>	<b>20,398</b>	<b>17,266</b>	<b>-2,850</b>	<b>-2,726</b>	-	<b>5,770</b>
Transfers	-	-	-7,590	8,775	-	-45	-	-	-
<b>Total Transformation Sector</b>	<b>-10,055</b>	<b>1,251</b>	<b>-70,765</b>	<b>54,301</b>	<b>18,746</b>	<b>2,892</b>	<b>2,759</b>	-	<b>18,562</b>
Main Activity Producer	-8,070	-	-	-10,473	-	-	-	-	-501
Autoproducers	-36	-87	-	-1,371	-	-	-	-	-120
Gas Processing	-	-	-	-822	-	-	-	-	-
Petroleum Refineries	-	-	-70,990	67,206	18,746	3,131	2,759	-	19,183
Coal Transformation	-1,949	1,338	-	-	-	-	-	-	-
Other Transformation	-	-	225	-239	-	-239	-	-	-
Loss & Own Use	-	-59	-	-5,364	-	-	-	-	-
Discrepancy	1,002	145	-3,253	-4,314	7	94	-33	-	-4,140
<b>Total Final Energy Consumption</b>	<b>129</b>	<b>1,617</b>	-	<b>73,796</b>	<b>36,019</b>	<b>90</b>	-	-	<b>20,192</b>
<b>Industry Sector</b>	<b>129</b>	<b>1,617</b>	-	<b>5,912</b>	-	-	-	-	<b>1,659</b>
Iron and Steel	-	1,617	-	206	-	-	-	-	34
Chemical & Petrochemical	-	-	-	304	-	-	-	-	103
Non-metallic Minerals	129	-	-	2,452	-	-	-	-	13
Other Industries	-	-	-	2,951	-	-	-	-	1,509
<b>Transport Sector</b>	-	-	-	<b>52,297</b>	<b>36,019</b>	-	-	-	<b>15,478</b>
Domestic Air Transport	-	-	-	9	9	-	-	-	-
Road	-	-	-	50,915	36,011	-	-	-	14,163
Rail	-	-	-	580	-	-	-	-	580
Inland Waterways	-	-	-	794	-	-	-	-	736
Pipeline Transport	-	-	-	-	-	-	-	-	-
Non-specified Transport	-	-	-	-	-	-	-	-	-
<b>Other Sector</b>	-	-	-	<b>11,122</b>	-	-	-	-	<b>3,056</b>
Residential	-	-	-	6,560	-	-	-	-	-
Commerce and Public Services	-	-	-	1,508	-	-	-	-	124
Agriculture	-	-	-	3,053	-	-	-	-	2,931
Non-specified Others	-	-	-	-	-	-	-	-	-
<b>Non-energy</b>	-	-	-	<b>4,464</b>	-	<b>90</b>	-	-	-
<b>2011</b>									
Indigenous Production	7,789	-	153,330	-	-	-	-	-	-
Import	4,352	213	367	32,584	17,611	1,067	44	-	6,810
Export	-6	-	-75,525	-9,014	-	-3,128	-85	-	-240
International Marine Bunkers	-	-	-	-925	-	-	-	-	-829
International Aviation Bunkers	-	-	-	-2,741	-13	-	-2,728	-	-
Stock Changes	-2,313	31	497	-1,012	-250	-	-35	-	-155
<b>Total Primary Energy Supply</b>	<b>9,822</b>	<b>244</b>	<b>78,669</b>	<b>18,891</b>	<b>17,348</b>	<b>-2,060</b>	<b>-2,805</b>	-	<b>5,586</b>
Transfers	-	-	-7,497	8,482	-	-1,067	-	30	-
<b>Total Transformation Sector</b>	<b>-10,159</b>	<b>1,234</b>	<b>-70,648</b>	<b>54,653</b>	<b>17,896</b>	<b>3,688</b>	<b>2,736</b>	-	<b>17,560</b>
Main Activity Producer	-8,106	-	-	-9,926	-	-	-	-	-384
Autoproducers	-38	-126	-	-1,263	-	-	-	-	-135
Gas Processing	-	-	-	-770	-	-	-	-	-
Petroleum Refineries	-	-	-70,862	66,839	17,896	3,914	2,736	-	18,079
Coal Transformation	-2,014	1,360	-	-	-	-	-	-	-
Other Transformation	-	-	213	-227	-	-227	-	-	-
Loss & Own Use	-	-80	-	-6,849	-407	-	-	-	-893
Discrepancy	467	245	-523	-1,234	930	-0	69	-	-2,633
<b>Total Final Energy Consumption</b>	<b>130</b>	<b>1,643</b>	-	<b>73,944</b>	<b>35,767</b>	<b>560</b>	-	<b>30</b>	<b>19,619</b>
<b>Industry Sector</b>	<b>130</b>	<b>1,643</b>	-	<b>5,900</b>	-	-	-	-	<b>1,529</b>
Iron and Steel	-	1,643	-	188	-	-	-	-	32
Chemical & Petrochemical	-	-	-	294	-	-	-	-	106
Non-metallic Minerals	130	-	-	2,660	-	-	-	-	12
Other Industries	-	-	-	2,758	-	-	-	-	1,380
<b>Transport Sector</b>	-	-	-	<b>51,945</b>	<b>35,767</b>	-	-	-	<b>15,224</b>
Domestic Air Transport	-	-	-	10	10	-	-	-	-
Road	-	-	-	50,502	35,757	-	-	-	13,848
Rail	-	-	-	617	-	-	-	-	617
Inland Waterways	-	-	-	817	-	-	-	-	759
Pipeline Transport	-	-	-	-	-	-	-	-	-
Non-specified Transport	-	-	-	-	-	-	-	-	-
<b>Other Sector</b>	-	-	-	<b>10,893</b>	-	-	-	<b>30</b>	<b>2,866</b>
Residential	-	-	-	6,515	-	-	-	29	-
Commerce and Public Services	-	-	-	1,502	-	-	-	-	118
Agriculture	-	-	-	2,876	-	-	-	1	2,748
Non-specified Others	-	-	-	-	-	-	-	-	-
<b>Non-energy</b>	-	-	-	<b>5,205</b>	-	<b>560</b>	-	-	-

unit: ktoe

Fuel Oil	LPG	Refinery Gas	Ethane	Other Products	Gas	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
-	-	-	-	-	40,357	2,740	2,285	5,475	8,423	-	-	218,999
2,443	3,295	-	-	2,484	18,615	-	-	-	-	201	-	56,065
-3,820	-	-	-	-537	-68	-	-	-	-	-566	-	-78,950
-99	-	-	-	-1	-	-	-	-	-	-	-	-930
-	-	-	-	-	-	-	-	-	-	-	-	-2,901
-221	-2	-	-	-604	-417	-	-	-	-	-	-	-3,768
-1,697	3,293	-	-	1,342	58,487	2,740	2,285	5,475	8,423	-365	-	188,514
-	5,993	-	2,834	-7	-	-	-	-	-	-	-	1,186
4,673	73	4,014	-	2,581	-25,708	-2,740	-2,285	-5,322	-1,312	25,272	-	-37,363
-9,973	-	-	-	-	-22,863	-2,693	-2,285	-5,153	-	22,506	-	-29,032
-326	-	-	-	-924	-3,415	-46	-	-169	-1,312	2,766	-	-3,670
-	-822	-	-	-	569	-	-	-	-	-	-	-253
14,972	896	4,014	-	3,505	-	-	-	-	-	-	-	-3,784
-	-	-	-	-	-	-	-	-	-	-	-	-611
-	-	-	-	-	-	-	-	-	-	-	-	-14
-1,292	-	-4,013	-	-59	-18,187	-	-	-	-	-5,377	-	-28,987
-495	461	-1	-2	-205	-147	-	-	-0	-0	233	-	-6,335
1,190	9,820	-	2,832	3,652	14,445	-	-	153	7,111	19,763	-	117,015
1,131	985	-	-	2,138	10,324	-	-	7	979	11,228	-	30,197
112	-	-	-	60	1,815	-	-	-	-	558	-	4,195
135	24	-	-	42	1,314	-	-	-	-	816	-	2,433
467	3	-	-	1,969	1,590	-	-	-	-	668	-	4,840
417	958	-	-	67	5,606	-	-	7	979	9,186	-	18,729
59	741	-	-	-	16	-	-	-	-	97	-	52,411
-	-	-	-	-	-	-	-	-	-	-	-	9
-	741	-	-	-	16	-	-	-	-	-	-	50,931
-	-	-	-	-	-	-	-	-	-	97	-	677
59	-	-	-	-	-	-	-	-	-	-	-	794
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	8,066	-	-	-	1,005	-	-	146	6,132	8,438	-	26,844
-	6,560	-	-	-	761	-	-	87	6,132	4,538	-	18,079
-	1,384	-	-	-	244	-	-	59	-	1,925	-	3,737
-	122	-	-	-	-	-	-	-	-	930	-	3,984
-	-	-	-	-	-	-	-	-	-	1,044	-	1,044
-	28	-	2,832	1,514	3,099	-	-	-	-	-	-	7,564
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	41,800	-	-	-	3,119	-	-	-	-	-	-	222,817
1,366	3,040	-	-	2,645	14,872	-	-	-	-	51	-	52,440
-5,508	-52	-	-	-2	-209	-	-	-	-	-100	-	-84,856
-95	-	-	-	-1	-	-	-	-	-	-	-	-925
-	-	-	-	-	-	-	-	-	-	-	-	-2,741
140	-60	-	-	-652	-226	-	-	-	-	-	-	-3,024
-4,096	2,928	-	-	1,991	56,236	3,119	2,629	5,880	8,270	-49	-	183,711
-	6,564	-	2,956	-	-	-	-	-	-	-	-	985
7,011	-11	3,692	-	2,081	-26,397	-3,119	-2,629	-5,740	-1,080	25,442	-	-38,443
-9,542	-	-	-	-	-23,813	-3,078	-2,629	-5,626	-	22,907	-	-30,272
-236	-	-	-	-892	-3,251	-40	-	-114	-1,080	2,535	-	-3,377
-	-770	-	-	-	666	-	-	-	-	-	-	-104
16,790	759	3,692	-	2,973	-	-	-	-	-	-	-	-4,022
-	-	-	-	-	-	-	-	-	-	-	-	-655
-	-	-	-	-	-	-	-	-	-	-	-	-13
-1,635	-124	-3,692	-	-97	-16,080	-	-	-	-	-5,987	-	-28,996
-157	500	-	-	57	-110	0	-	-0	-	23	-	-1,132
1,123	9,857	-	2,956	4,031	13,650	-	-	140	7,190	19,429	-	116,125
1,066	946	-	-	2,359	9,896	-	-	6	995	10,671	-	29,240
106	-	-	-	51	1,797	-	-	-	-	520	-	4,148
133	20	-	-	35	1,002	-	-	-	-	800	-	2,095
432	3	-	-	2,212	899	-	-	-	-	660	-	4,348
396	922	-	-	61	6,198	-	-	6	995	8,691	-	18,649
58	897	-	-	-	13	-	-	-	-	96	-	52,055
-	-	-	-	-	-	-	-	-	-	-	-	10
-	897	-	-	-	13	-	-	-	-	-	-	50,515
58	-	-	-	-	-	-	-	-	-	-	-	817
-	-	-	-	-	-	-	-	-	-	-	-	-
-	7,996	-	-	-	937	-	-	134	6,195	8,662	-	26,820
-	6,486	-	-	-	716	-	-	80	6,195	4,515	-	18,021
-	1,384	-	-	-	221	-	-	54	-	1,959	-	3,735
-	127	-	-	-	-	-	-	-	-	959	-	3,835
-	-	-	-	-	-	-	-	-	-	1,229	-	1,229
-	18	-	2,956	1,672	2,804	-	-	-	-	-	-	8,010

**Major Energy Indicators of Mexico**

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	1990	2000	2005	2008	2009	2010	2011	2012
<b>Total</b>								
Primary Energy Supply	122,501	144,907	168,751	180,897	175,305	176,351	183,711	188,514
Indigenous Production	194,661	222,122	249,877	231,556	219,404	222,198	222,817	218,999
Import	5,648	25,515	31,696	42,212	39,562	47,514	52,440	56,065
Export	-75,520	-97,157	-108,899	-87,594	-80,627	-87,492	-84,856	-78,950
Final Energy Consumption	84,321	98,289	105,312	115,073	110,226	113,619	116,125	117,015
Industry	26,575	27,920	27,001	28,007	25,961	27,572	29,240	30,197
Transport	28,530	36,158	44,463	51,823	50,474	51,846	52,055	52,411
Residential	15,750	18,094	17,686	17,870	17,691	17,844	18,021	18,079
Commerce & Public Services	1,481	3,429	3,424	3,556	3,561	3,574	3,735	3,737
Others	11,985	12,687	12,738	13,817	12,540	12,782	13,073	12,591
<b>Coal, Coal Products</b>								
Primary Energy Supply	3,467	7,106	10,141	8,498	8,858	9,504	10,066	9,462
Indigenous Production	3,387	5,415	5,159	5,734	5,314	6,324	7,789	7,529
Import	235	1,960	4,815	3,158	3,812	4,650	4,565	4,375
Export	-6	-4	-4	-7	-4	-4	-6	-151
Transformation Sector	-1,659	-5,379	-8,281	-5,985	-7,733	-8,362	-8,925	-8,804
Power Generation	-1,725	-4,734	-7,974	-5,321	-7,159	-7,882	-8,270	-8,193
Final Energy Consumption	1,759	1,495	1,400	1,393	1,207	1,783	1,772	1,746
Industry	1,759	1,495	1,400	1,393	1,207	1,783	1,772	1,746
Transport	-	-	-	-	-	-	-	-
Residential	-	-	-	-	-	-	-	-
Commerce & Public Services	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-
<b>Crude Oil</b>								
Primary Energy Supply	82,017	77,858	90,543	86,935	87,430	78,261	78,669	81,608
Indigenous Production	152,754	170,926	193,670	166,866	156,255	154,956	153,330	152,190
Import	-	352	382	472	502	399	367	485
Export	-70,432	-92,500	-103,435	-79,749	-69,778	-76,969	-75,525	-70,781
Transformation Sector	-69,254	-66,021	-78,236	-75,903	-76,056	-71,055	-70,648	-70,765
Petroleum Refineries	-69,254	-66,021	-78,236	-75,903	-76,056	-71,055	-70,862	-70,990
<b>Petroleum Products</b>								
Primary Energy Supply	-1,753	11,884	9,650	15,739	11,139	16,382	18,891	20,398
Import	4,994	20,703	18,807	26,993	24,439	29,993	32,584	32,388
Export	-4,915	-4,431	-5,139	-6,820	-10,151	-9,667	-9,014	-7,384
Transformation Sector	50,097	40,962	54,042	56,835	59,951	56,407	54,653	54,301
Power Generation	-15,119	-22,978	-16,062	-11,070	-10,608	-10,073	-11,190	-11,844
Petroleum Refineries	65,215	65,086	71,200	68,799	71,419	67,297	66,839	67,206
Final Energy Consumption	51,210	61,663	68,880	76,019	72,502	73,858	73,944	73,796
Industry	7,445	7,479	7,286	6,934	6,183	5,842	5,900	5,912
Transport	28,461	36,058	44,353	51,714	50,365	51,732	51,945	52,297
Residential	6,573	7,635	6,881	6,717	6,450	6,585	6,515	6,560
Commerce & Public Services	540	1,732	1,535	1,501	1,453	1,506	1,502	1,508
Others	8,191	8,758	8,824	9,153	8,051	8,193	8,081	7,518
<b>Natural Gas</b>								
Primary Energy Supply	23,126	28,929	38,077	49,014	48,528	53,280	56,236	58,487
Indigenous Production	22,757	26,728	30,604	38,150	38,406	41,911	41,800	40,357
Import	370	2,408	7,684	11,559	10,779	12,438	14,872	18,615
Export	-	-207	-211	-893	-588	-736	-209	-68
Transformation Sector	-3,432	-7,830	-16,293	-22,938	-23,121	-24,674	-26,397	-25,708
Power Generation	-3,432	-8,683	-17,091	-23,582	-23,734	-25,310	-27,064	-26,278
Final Energy Consumption	14,164	12,952	11,102	12,507	11,805	12,746	13,650	14,445
Industry	10,827	9,007	7,939	8,637	8,247	9,016	9,896	10,324
Transport	-	6	16	14	13	12	13	16
Residential	810	520	735	737	690	737	716	761
Commerce & Public Services	-	170	174	214	206	229	221	244
Others	2,527	3,250	2,237	2,905	2,649	2,752	2,804	3,099
<b>Electricity</b>								
Power Generation	9,962	17,559	20,969	22,525	22,450	23,310	25,442	25,272
Thermal	7,247	12,729	15,888	16,638	17,478	17,795	19,663	19,639
Hydro	2,019	2,849	2,379	3,369	2,297	3,192	3,119	2,740
Nuclear	255	714	939	852	912	511	876	762
Others	441	1,266	1,764	1,666	1,762	1,812	1,784	2,132
Final Energy Consumption	8,617	13,950	16,095	17,400	17,297	17,883	19,429	19,763
Industry	4,592	8,559	8,985	9,675	9,288	9,901	10,671	11,228
Transport	69	95	94	96	96	102	96	97
Residential	1,754	3,107	3,658	4,081	4,232	4,249	4,515	4,538
Commerce & Public Services	935	1,511	1,682	1,790	1,841	1,794	1,959	1,925
Others	1,267	679	1,677	1,759	1,839	1,837	2,188	1,974

### Major Economic Indicators of Mexico

	1990	2000	2005	2008	2009	2010	2011	2012
Population (Millions) *1	86.08	103.87	110.73	114.97	116.42	117.89	119.36	120.85
Gross Domestic Product *3								
Real Term (Billions of 2010 Price and 2010 USD)	619.52	880.87	955.48	1,049.35	1,000.02	1,051.13	1,093.64	1,137.20
Real Term (Billions of 2010 Price and 2010 PPP)	1,023.20	1,454.85	1,578.08	1,733.11	1,651.65	1,736.05	1,806.26	1,878.21
Nominal (Billions of Current USD)	262.71	683.65	866.35	1,101.27	894.95	1,051.13	1,171.19	1,185.70
GDP per Capita *3								
Real Term (2010 Price and 2010 USD)	7,197	8,480	8,629	9,127	8,590	8,916	9,162	9,410
Real Term (2010 Price and 2010 PPP)	11,887	14,006	14,251	15,075	14,187	14,726	15,133	15,542
Nominal (Current USD)	3,052	6,582	7,824	9,579	7,687	8,916	9,812	9,812
Nominal GDP & its Components (Billions of Current MXN) *1								
Gross Domestic Product	738.90	6,464.30	9,441.35	12,256.86	12,093.89	13,282.06	14,550.01	15,615.01
Household Final Consumption Expenditure, etc.	514.12	4,319.59	6,465.05	8,210.31	8,055.90	8,967.84	9,809.00	10,348.07
General Government Final Consumption Expenditure	61.95	727.23	1,009.65	1,333.81	1,449.59	1,548.45	1,684.17	1,816.60
Gross Fixed Capital Formation	132.11	1,351.16	2,006.91	2,826.85	2,721.04	2,802.85	3,166.63	3,501.07
Stock Change	38.88	103.66	95.78	164.70	45.61	122.74	72.05	121.40
Exports of Goods and Services	137.44	1,698.61	2,508.35	3,419.44	3,299.27	3,967.57	4,546.61	5,097.50
Imports of Goods and Services	145.60	1,735.95	2,644.40	3,698.25	3,477.52	4,127.39	4,728.44	5,269.64
Real GDP & its Components (Billions of 1993 MXN) *1								
Gross Domestic Product	7,236.29	10,288.98	11,160.49	12,256.86	11,680.75	12,277.66	12,774.24	13,283.05
Household Final Consumption Expenditure, etc.	4,772.74	6,611.26	7,418.36	8,206.74	7,752.33	8,212.34	8,522.79	8,801.94
General Government Final Consumption Expenditure	940.89	1,216.68	1,222.01	1,333.81	1,363.80	1,387.13	1,422.01	1,468.63
Gross Fixed Capital Formation	1,270.44	2,053.82	2,340.99	2,830.42	2,568.10	2,600.82	2,806.51	2,934.57
Stock Change	77.71	156.51	107.80	164.70	27.78	112.44	53.46	88.64
Exports of Goods and Services	764.30	2,706.75	3,106.03	3,419.44	3,016.58	3,636.38	3,935.14	4,167.92
Imports of Goods and Services	725.56	2,456.03	3,034.70	3,698.25	3,047.83	3,671.45	3,965.68	4,178.65
Sectional Shares of Real GDP (%) *1								
Agriculture, Fishery and Forest	4.0	3.3	3.2	3.2	3.3	3.1	3.0	3.0
Industry	37.6	37.8	37.1	35.6	35.0	34.9	34.7	34.2
Services, etc.	55.7	56.3	57.1	58.6	59.1	59.4	59.8	60.1
Industrial Production Index (2010=100) *2	64.6	91.1	97.0	102.2	95.9	100.0	103.1	106.0
External Trade (Billions of Current USD) *1								
Exports, f.o.b.	40.711	166.367	214.207	291.265	229.712	298.305	349.569	370.915
Imports, c.i.f.	43.548	179.464	228.240	318.304	241.515	310.205	361.068	380.477
Balance of Payments (Billions of Current USD) *2								
Trade Balance	N.A.	N.A.	-7.663	-17.615	-4.926	-2.943	-1.263	0.227
Current Account	N.A.	N.A.	-8.971	-20.029	-8.165	-3.899	-12.569	-15.058
Overall Balance	N.A.	N.A.	6.089	13.400	11.936	40.425	37.960	36.206
Foreign Exchange Rate (MXN/USD) *1	2.8126	9.4556	10.8979	11.1297	13.5135	12.6360	12.4233	13.1695
Purchasing Power Parity (MXN/International Dollar) *1	1.4325	6.0941	7.1269	7.4695	7.4446	7.6507	7.6730	7.9870
Price Indices								
GDP Deflator (2008=100) *3	10.2	62.8	84.6	100.0	103.5	108.2	113.9	117.6
Wholesale Price Index (2010=100) *2	12.0	58.1	77.5	92.1	95.7	100.0	106.0	111.0
Consumer Price Index (2010=100) *2	11.8	63.3	80.5	91.2	96.0	100.0	103.4	107.7
Growth Rate (%)								
Real GDP *3	5.07	5.30	3.03	1.40	-4.70	5.11	4.04	3.98
Population *3	2.08	1.52	1.23	1.27	1.27	1.26	1.25	1.25
Price *2								
Wholesale Price Index	21.7	7.8	3.6	7.4	3.9	4.5	6.0	4.7
Consumer Price Index	26.7	9.5	4.0	5.1	5.3	4.2	3.4	4.1

Source : \*1 : "World Development Indicators", World Bank

\*2 : "International Financial Statistics", International Monetary Fund

\*3 : Calculated from \*1 and \*2 by the Coordinating Agency

Note : N.A. means "not available"

: MXN means Mexican Nuevo Peso, USD means United States Dollar

: PPP means Purchasing Power Parity

**Energy Price of Mexico in 2012****Currency Exchange Rate**

Currency Exchange Rate	Local currency / US Dollar	13.31
Local Currency Unit		MXN

**IMPORT PRICES****WHOLESALE PRICES****CONSUMER PRICES**

Coal and Coal Products	Unit	Amount	Coal and Coal Products	Unit	Amount	Coal and Coal Products	Unit	Amount
Coking Coal			Coking Coal			Coking Coal		
Anthracite			Anthracite			Anthracite		
Other bituminous coal			Other bituminous coal			Other bituminous coal		
Sub-bituminous Coal			Sub-bituminous Coal			Sub-bituminous Coal		
Lignite			Lignite			Lignite		
Peat			Peat			Peat		
Patent Fuel			Patent Fuel			Patent Fuel		
Coke			Coke			Coke		
Coal Tar			Coal Tar			Coal Tar		
BKB/PB			BKB/PB			BKB/PB		
			Gas Works Gas			Gas Works Gas		
Oil and Oil Products	Unit	Amount	Oil and Oil Products	Unit	Amount	Oil and Oil Products	Unit	Amount
Crude Oil			Crude Oil			Crude Oil		
Natural Gas Liquids			Natural Gas Liquids			Natural Gas Liquids		
Ethane			Ethane			Ethane		
LPG			LPG	MXN/ton	7.36	LPG	MXN/kg	11.54
Naphtha			Naphtha			Naphtha		
Motor Gasoline			Motor Gasoline			Motor Gasoline	MXN/liter	10.20
Aviation Gasoline			Aviation Gasoline			Aviation Gasoline		
Gasoline Type Jet Fuel			Gasoline Type Jet Fuel			Gasoline Type Jet Fuel		
Kerosene Type Jet Fuel			Kerosene Type Jet Fuel			Kerosene Type Jet Fuel		
Other Kerosene			Other Kerosene			Other Kerosene		
Gas/Diesel Oil			Gas/Diesel Oil	MXN/liter	9.16	Gas/Diesel Oil	MXN/liter	10.52
Fuel Oil			Fuel Oil	MXN/ton	7,927	Fuel Oil	MXN/liter	9.32
White Spirit SBP			White Spirit SBP			White Spirit SBP		
Lubricants			Lubricants			Lubricants		
Bitumen			Bitumen			Bitumen		
Paraffin Waxes			Paraffin Waxes			Paraffin Waxes		
Petroleum Coke			Petroleum Coke			Petroleum Coke		
Natural Gas	Unit	Amount	Natural Gas	Unit	Amount	Natural Gas	Unit	Amount
Natural Gas			Natural Gas	MXN/GJ	33.78	Natural Gas	MXN/GJ	60.04
Liquefied Natural Gas			Liquefied Natural Gas			Liquefied Natural Gas		
Compressed Natural Gas			Compressed Natural Gas			Compressed Natural Gas		
Electricity	Unit	Amount	Electricity	Unit	Amount	Electricity	Unit	Amount
Electricity			Electricity			Industrial	cents / kWh	150.89
						Commercial	cents / kWh	291.27
						Residential	cents / kWh	118.61
						Others	cents / kWh	58.51
Other Energy Products	Unit	Amount	Other Energy Products	Unit	Amount	Other Energy Products	Unit	Amount
Charcoal								

### **3.12 New Zealand**

## Energy Balance Table of New Zealand

	Coal	Coal Products	Crude Oil & NGL	Petroleum Products				
				Total	Gasoline	Naphtha	Jet Fuel	Kerosene
<b>2012</b>								
Indigenous Production	2,875	-	2,121	-	-	-	-	-
Import	83	-	5,618	1,792	1,184	-	16	-
Export	-1,576	-	-1,838	-288	-	-	-	474
International Marine Bunkers	-	-	-	-374	-1	-	-	-46
International Aviation Bunkers	-	-	-	-824	-	-	-824	-
Stock Changes	135	-	151	-5	3	-	-32	-
<b>Total Primary Energy Supply</b>	<b>1,517</b>	-	<b>6,052</b>	<b>300</b>	<b>1,186</b>	-	<b>-840</b>	-
Transfers	-	-	-181	189	1	-	-3	2
<b>Total Transformation Sector</b>	<b>-1,090</b>	<b>88</b>	<b>-5,794</b>	<b>5,815</b>	<b>1,445</b>	-	<b>1,117</b>	-
Main Activity Producer	-665	-	-	-1	-	-	-	-1
Autoproducers	-7	-172	-	-	-	-	-	-
Gas Processing	-	-	-	-	-	-	-	-
Petroleum Refineries	-	-	-5,799	5,816	1,445	-	1,117	-
Coal Transformation	-418	260	-	-	-	-	-	2,177
Other Transformation	-	-	6	-	-	-	-	-
Loss & Own Use	-	-50	-	-365	-	-	-	-
Discrepancy	102	0	-77	-160	-202	-	3	-
<b>Total Final Energy Consumption</b>	<b>529</b>	<b>38</b>	-	<b>5,778</b>	<b>2,430</b>	-	<b>277</b>	<b>2</b>
Industry Sector	404	38	-	364	2	-	-	294
Iron and Steel	-	38	-	-	-	-	-	-
Chemical & Petrochemical	-	-	-	-	-	-	-	-
Non-metallic Minerals	51	-	-	-	-	-	-	-
Other Industries	353	-	-	364	2	-	-	294
Transport Sector	-	-	-	4,537	2,391	-	277	-
Domestic Air Transport	-	-	-	289	12	-	277	-
Road	-	-	-	4,106	2,379	-	-	1,718
Rail	-	-	-	48	-	-	-	48
Inland Waterways	-	-	-	94	-	-	-	61
Pipeline Transport	-	-	-	-	-	-	-	-
Non-specified Transport	-	-	-	-	-	-	-	-
Other Sector	125	-	-	627	37	-	-	495
Residential	10	-	-	73	-	-	-	6
Commerce and Public Services	32	-	-	121	4	-	-	90
Agriculture	83	-	-	336	33	-	-	302
Non-specified Others	-	-	-	97	-	-	-	97
Non-energy	-	-	-	250	-	-	-	-
<b>2011</b>								
Indigenous Production	2,894	-	2,382	-	-	-	-	-
Import	91	-	5,370	1,895	1,024	-	15	-
Export	-1,535	-	-2,144	-296	-	-	-13	-
International Marine Bunkers	-1	-	-	-341	-3	-	-	-46
International Aviation Bunkers	-	-	-	-785	-	-	-785	-
Stock Changes	-13	-	54	-152	26	-	-11	-
<b>Total Primary Energy Supply</b>	<b>1,436</b>	-	<b>5,662</b>	<b>321</b>	<b>1,046</b>	-	<b>-794</b>	-
Transfers	-	-	-160	167	1	-	-15	-4
<b>Total Transformation Sector</b>	<b>-794</b>	<b>84</b>	<b>-5,558</b>	<b>5,605</b>	<b>1,417</b>	-	<b>1,114</b>	<b>2</b>
Main Activity Producer	-375	-	-	-	-	-	-	-
Autoproducers	-7	-157	-	-	-	-	-	-
Gas Processing	-	-	-	-	-	-	-	-
Petroleum Refineries	-	-	-5,564	5,605	1,417	-	1,114	2
Coal Transformation	-412	241	-	-	-	-	-	1,959
Other Transformation	-	-	6	-	-	-	-	-
Loss & Own Use	-5	-49	-	-364	-	-	-	-
Discrepancy	-116	0	57	96	-25	-	33	2
<b>Total Final Energy Consumption</b>	<b>521</b>	<b>35</b>	-	<b>5,825</b>	<b>2,438</b>	-	<b>338</b>	<b>4</b>
Industry Sector	411	35	-	331	2	-	-	268
Iron and Steel	-	35	-	-	-	-	-	-
Chemical & Petrochemical	-	-	-	-	-	-	-	-
Non-metallic Minerals	53	-	-	-	-	-	-	-
Other Industries	358	-	-	331	2	-	-	268
Transport Sector	1	-	-	4,573	2,402	-	338	-
Domestic Air Transport	-	-	-	350	12	-	338	-
Road	-	-	-	4,087	2,391	-	-	1,686
Rail	-	-	-	45	-	-	-	45
Inland Waterways	-	-	-	92	-	-	-	62
Pipeline Transport	-	-	-	-	-	-	-	-
Non-specified Transport	1	-	-	-	-	-	-	-
Other Sector	108	-	-	625	34	-	-	499
Residential	17	-	-	72	-	-	-	8
Commerce and Public Services	29	-	-	141	2	-	-	113
Agriculture	62	-	-	319	32	-	-	285
Non-specified Others	-	-	-	93	-	-	-	93
Non-energy	-	-	-	297	-	-	-	-

unit: ktoe

Fuel Oil	LPG	Refinery Gas	Ethane	Other Products	Gas	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
-	-	-	-	-	3,799	1,969	-	3,976	1,202	-	-	15,942
-	16	-	-	102	-	-	-	-	2	-	-	7,495
-258	-30	-	-	-	-	-	-	-	-	-	-	-3,702
-328	-	-	-	-	-	-	-	-	-	-	-	-374
-	-	-	-	-	-	-	-	-	-	-	-	-824
19	-3	-	-	3	42	-	-	-	-	-	-	322
-567	-17	-	-	106	3,841	1,969	-	3,976	1,204	-	-	18,859
-	189	-	-	4	-	-	-	-	-	-	-	7
572	-	331	-	173	-1,569	-1,969	-	-3,729	-164	3,809	26	-4,577
-	-	-	-	-	-1,531	-1,968	-	-3,697	-43	3,692	-	-4,213
-	-	-	-	-	-37	-1	-	-33	-116	117	26	-222
-	-	-	-	-	-	-	-	-	-	-	-	-
572	-	331	-	173	-	-	-	-	-	-	-	16
-	-	-	-	-	-0	-	-	-	-	-	-	-159
-	-	-	-	-	-	-	-	-	-6	-	-	-0
-	-	-331	-	-34	-222	-	-	-	-	-430	-26	-1,093
27	-1	-	-	1	-121	-0	-	0	0	-57	-	-313
33	171	-	-	250	1,928	-	-	247	1,040	3,323	-	12,883
-	66	-	-	-	907	-	-	159	899	1,218	-	3,989
-	-	-	-	-	63	-	-	-	-	130	-	231
-	-	-	-	-	429	-	-	-	-	32	-	462
-	-	-	-	-	15	-	-	-	-	22	-	88
-	66	-	-	-	400	-	-	159	899	1,034	-	3,209
33	9	-	-	-	1	-	-	-	-	5	-	4,543
-	-	-	-	-	-	-	-	-	-	-	-	289
-	9	-	-	-	1	-	-	-	-	-	-	4,107
-	-	-	-	-	-	-	-	-	-	-	-	48
33	-	-	-	-	-	-	-	-	-	-	-	94
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	5
-	96	-	-	-	338	-	-	88	141	2,100	-	3,420
-	67	-	-	-	135	-	-	15	136	1,105	-	1,475
-	27	-	-	-	170	-	-	54	5	780	-	1,161
-	1	-	-	-	34	-	-	19	-	145	-	617
-	-	-	-	-	-	-	-	-	-	70	-	167
-	-	-	-	-	250	682	-	-	-	-	-	932
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	3,481	2,160	-	3,894	1,209	-	-	16,019
-	8	-	-	142	-	-	-	-	1	-	-	7,357
-265	-18	-	-	-	-	-	-	-	-	-	-	-3,975
-292	-	-	-	-	-	-	-	-	-	-	-	-342
-	-	-	-	-	-	-	-	-	-	-	-	-785
-12	8	-	-	-8	-71	-	-	-	-	-	-	-182
-569	-2	-	-	134	3,411	2,160	-	3,894	1,210	-	-	18,093
-	189	-	-	16	-	-	-	-	-	-	-	7
604	-	338	-	172	-1,510	-2,160	-	-3,677	-166	3,824	28	-4,324
-	-	-	-	-	-1,481	-2,159	-	-3,644	-42	3,714	-	-3,986
-	-	-	-	-	-29	-1	-	-32	-119	110	28	-207
-	-	-	-	-	-	-	-	-	-	-	-	-
604	-	338	-	172	-	-	-	-	-	-	-	40
-	-	-	-	-	-0	-	-	-	-	-	-	-172
-	-	-	-	-	-	-	-	-	-6	-	-	0
-	-	-338	-	-26	-242	-	-	-	-	-423	-28	-1,111
-4	-9	-	-	1	44	-	-	0	-0	-35	-	45
32	157	-	-	297	1,702	-	-	217	1,044	3,366	-	12,709
2	57	-	-	-	897	-	-	131	900	1,277	-	3,982
-	-	-	-	-	60	-	-	-	-	131	-	226
-	-	-	-	-	338	-	-	-	-	33	-	370
-	-	-	-	-	16	-	-	-	-	22	-	91
2	57	-	-	-	484	-	-	131	900	1,092	-	3,295
30	10	-	-	-	1	-	-	-	-	5	-	4,580
-	-	-	-	-	-	-	-	-	-	-	-	350
-	10	-	-	-	1	-	-	-	-	-	-	4,088
-	-	-	-	-	-	-	-	-	-	-	-	45
30	-	-	-	-	-	-	-	-	-	-	-	92
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-5	-	-	6
-	90	-	-	-	279	-	-	87	144	2,084	-	3,326
-	64	-	-	-	123	-	-	16	138	1,103	-	1,469
-	25	-	-	-	119	-	-	53	5	779	-	1,126
-	1	-	-	-	36	-	-	18	-	147	-	582
-	-	-	-	-	-	-	-	-	-	55	-	148
-	-	-	-	-	297	525	-	-	-	-	-	821

**Major Energy Indicators of New Zealand**

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	1990	2000	2005	2008	2009	2010	2011	2012
<b>Total</b>								
Primary Energy Supply	12,707	16,967	16,931	17,447	17,503	18,213	18,093	18,859
Indigenous Production	11,400	14,168	12,863	15,014	15,327	16,803	16,019	15,942
Import	3,812	5,942	7,404	7,567	7,475	7,138	7,357	7,495
Export	-1,696	-2,590	-2,485	-4,644	-4,058	-4,284	-3,975	-3,702
Final Energy Consumption	9,716	12,938	12,533	12,669	12,460	12,815	12,709	12,883
Industry	3,599	4,261	4,081	3,938	3,701	3,980	3,982	3,989
Transport	2,957	4,063	4,540	4,665	4,574	4,569	4,580	4,543
Residential	1,209	1,356	1,433	1,439	1,513	1,500	1,469	1,475
Commerce & Public Services	800	932	1,129	1,165	1,131	1,163	1,126	1,161
Others	1,152	2,326	1,350	1,462	1,541	1,604	1,551	1,716
<b>Coal, Coal Products</b>								
Primary Energy Supply	1,185	1,107	2,194	1,956	1,474	1,312	1,436	1,517
Indigenous Production	1,423	2,074	3,164	2,837	2,654	3,137	2,894	2,875
Import	1	11	562	314	356	133	91	83
Export	-239	-1,116	-1,667	-1,781	-1,478	-1,708	-1,535	-1,576
Transformation Sector	-313	-487	-1,533	-1,260	-925	-641	-710	-1,002
Power Generation	-170	-384	-1,406	-1,146	-794	-502	-538	-843
Final Energy Consumption	675	516	575	692	548	604	556	567
Industry	542	434	483	590	480	515	446	442
Transport	2	2	2	1	0	1	1	-
Residential	87	25	20	8	19	12	17	10
Commerce & Public Services	35	43	43	53	29	33	29	32
Others	9	13	27	40	19	43	62	83
<b>Crude Oil</b>								
Primary Energy Supply	4,373	5,430	5,215	5,302	5,240	5,478	5,662	6,052
Indigenous Production	1,966	1,944	1,084	2,933	2,771	2,745	2,382	2,121
Import	3,293	4,724	4,829	4,967	4,895	5,233	5,370	5,618
Export	-965	-1,263	-636	-2,653	-2,370	-2,453	-2,144	-1,838
Transformation Sector	-4,237	-5,204	-5,170	-5,319	-5,218	-5,360	-5,558	-5,794
Petroleum Refineries	-4,879	-5,204	-5,170	-5,322	-5,221	-5,364	-5,564	-5,799
<b>Petroleum Products</b>								
Primary Energy Supply	-863	277	906	944	973	628	321	300
Import	519	1,208	2,013	2,284	2,224	1,771	1,895	1,792
Export	-492	-211	-183	-210	-210	-122	-296	-288
Transformation Sector	4,969	5,266	5,425	5,350	5,253	5,372	5,605	5,815
Power Generation	-6	-	-1	-32	-2	-	-	-1
Petroleum Refineries	4,975	5,266	5,426	5,381	5,255	5,372	5,605	5,816
Final Energy Consumption	4,026	5,306	5,963	6,076	5,819	5,846	5,825	5,778
Industry	285	337	426	466	392	346	331	364
Transport	2,894	4,056	4,532	4,657	4,567	4,562	4,573	4,537
Residential	12	49	67	64	63	69	72	73
Commerce & Public Services	168	119	150	113	97	128	141	121
Others	667	745	788	775	700	741	708	683
<b>Natural Gas</b>								
Primary Energy Supply	3,872	5,059	3,228	3,439	3,507	3,728	3,411	3,841
Indigenous Production	3,872	5,056	3,228	3,439	3,595	3,855	3,481	3,799
Import	-	-	-	-	-	-	-	-
Export	-	-	-	-	-	-	-	-
Transformation Sector	-1,991	-1,898	-1,725	-1,810	-1,532	-1,763	-1,510	-1,569
Power Generation	-1,240	-1,898	-1,724	-1,809	-1,531	-1,762	-1,510	-1,569
Final Energy Consumption	1,798	3,012	1,333	1,371	1,668	1,734	1,702	1,928
Industry	1,228	1,339	704	686	784	877	897	907
Transport	57	0	0	1	1	1	1	1
Residential	75	156	141	117	137	129	123	135
Commerce & Public Services	94	136	166	140	157	148	119	170
Others	343	1,381	322	427	589	580	561	716
<b>Electricity</b>								
Power Generation	2,775	3,375	3,695	3,770	3,737	3,859	3,824	3,809
Thermal	566	1,000	1,390	1,457	1,189	1,213	1,102	1,267
Hydro	1,994	2,101	2,006	1,921	2,083	2,126	2,160	1,969
Nuclear	-	-	-	-	-	-	-	-
Others	215	274	299	393	465	521	562	574
Final Energy Consumption	2,427	2,947	3,270	3,290	3,271	3,363	3,366	3,323
Industry	963	1,206	1,316	1,198	1,132	1,209	1,277	1,218
Transport	5	6	5	5	5	5	5	5
Residential	877	968	1,044	1,090	1,136	1,134	1,103	1,105
Commerce & Public Services	458	589	703	793	783	793	779	780
Others	125	178	200	203	216	222	202	215

### Major Economic Indicators of New Zealand

	1990	2000	2005	2008	2009	2010	2011	2012
Population (Millions) *1	3.33	3.86	4.13	4.27	4.32	4.37	4.41	4.43
Gross Domestic Product *3								
Real Term (Billions of 2010 Price and 2010 USD)	83.05	111.83	136.00	141.06	140.91	143.47	146.91	150.30
Real Term (Billions of 2010 Price and 2010 PPP)	76.71	103.28	125.60	130.28	130.14	132.51	135.69	138.82
Nominal (Billions of Current USD)	45.00	53.81	113.79	130.46	118.95	143.47	163.99	171.47
GDP per Capita *3								
Real Term (2010 Price and 2010 USD)	24,942	28,988	32,898	33,044	32,649	32,846	33,349	33,905
Real Term (2010 Price and 2010 PPP)	23,036	26,774	30,384	30,519	30,155	30,337	30,801	31,315
Nominal (Current USD)	13,513	13,949	27,526	30,560	27,562	32,846	37,226	38,680
Nominal GDP & its Components (Billions of Current NZD) *1								
Gross Domestic Product	75.42	118.45	161.61	185.61	190.43	199.11	207.58	211.64
Household Final Consumption Expenditure, etc.	45.78	69.49	95.24	108.05	111.55	116.35	122.24	126.18
General Government Final Consumption Expenditure	14.18	20.41	29.08	37.43	38.34	39.94	41.11	41.24
Gross Fixed Capital Formation	14.92	23.64	38.56	40.51	36.83	37.28	38.78	41.77
Stock Change	-0.15	1.42	1.10	0.05	-0.85	0.85	1.80	0.82
Exports of Goods and Services	20.37	42.84	46.09	60.76	55.84	61.57	65.05	62.75
Imports of Goods and Services	19.68	39.34	48.45	61.20	51.28	56.87	61.41	61.12
Real GDP & its Components (Billions of 2000 NZD) *1								
Gross Domestic Product	98.70	132.90	161.61	167.64	167.45	170.49	174.59	178.62
Household Final Consumption Expenditure, etc.	58.12	75.14	95.24	99.70	98.06	102.38	105.70	107.65
General Government Final Consumption Expenditure	19.90	24.19	29.08	33.02	33.00	33.66	33.73	33.53
Gross Fixed Capital Formation	17.26	25.26	38.56	37.19	33.62	34.20	35.67	38.23
Stock Change	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Exports of Goods and Services	22.60	39.31	46.09	48.29	50.20	51.65	53.09	54.43
Imports of Goods and Services	19.43	32.24	48.45	50.82	46.21	51.53	54.91	55.55
Sectional Shares of Real GDP (%) *1								
Agriculture, Fishery and Forest	5.4	5.0	4.6	4.2	4.1	3.8	4.2	4.0
Industry	27.3	24.6	24.0	22.7	22.6	22.5	22.2	22.5
Services, etc.	60.8	63.5	64.1	65.9	66.1	66.4	66.5	66.2
Manufacturing Production Index (2010=100) *2	58.2	92.1	103.4	102.5	96.7	100.0	98.6	99.0
External Trade (Billions of Current USD) *1								
Exports, f.o.b.	9.394	13.272	21.730	30.580	24.933	31.396	37.669	37.306
Imports, c.i.f.	9.501	13.906	26.219	34.369	25.574	30.617	37.105	38.255
Balance of Payments (Billions of Current USD) *2								
Trade Balance	N.A.	N.A.	-3.105	-2.252	0.929	1.989	2.230	0.094
Current Account	N.A.	N.A.	-8.044	-10.224	-2.957	-3.367	-4.821	-6.963
Overall Balance	N.A.	N.A.	2.782	-8.461	2.635	3.177	5.388	-2.659
Foreign Exchange Rate (NZD/USD) *1	1.6762	2.2011	1.4203	1.4227	1.6009	1.3878	1.2658	1.2343
Purchasing Power Parity (NZD/International Dollar) *1	1.5285	1.4403	1.5350	1.4907	1.4593	1.5026	1.4859	1.4829
Price Indices								
GDP Deflator (2005=100) *3	76.4	89.1	100.0	110.7	113.7	116.8	118.9	118.5
Industry Input Price Index (2010=100) *2	60.6	73.6	82.4	98.7	96.3	100.0	104.0	104.4
Consumer Price Index (2010=100) *2	64.7	77.6	87.0	95.7	97.7	100.0	104.4	105.4
Growth Rate (%) *3								
Real GDP	0.20	2.72	3.51	-1.92	-0.11	1.82	2.40	2.31
Population	0.93	0.59	1.14	0.96	1.10	1.20	0.86	0.63
Price								
Industry Input Price Index	4.6	8.3	5.4	10.0	-2.4	3.9	4.0	0.4
Consumer Price Index	6.1	3.0	3.0	4.0	2.1	2.3	4.4	0.9

Source : \*1 : "World Development Indicators", World Bank

\*2 : "International Financial Statistics", International Monetary Fund

\*3 : Calculated from \*1 and \*2 by the Coordinating Agency

Note : N.A. means "not available"

: NZD means New Zealand Dollar, USD means United States Dollar

: PPP means Purchasing Power Parity

**Energy Price of New Zealand in 2012****Currency Exchange Rate**

	Local currency / US Dollar	
Currency Exchange Rate		NZD

**IMPORT PRICES****WHOLESALE PRICES****CONSUMER PRICES**

Unit	Amount	Unit	Amount	Unit	Amount
<b>Coal and Coal Products</b>					
Coking Coal		Coking Coal		Coking Coal	
Anthracite		Anthracite		Anthracite	
Other bituminous coal		Other bituminous coal		Other bituminous coal	
Sub-bituminous Coal		Sub-bituminous Coal		Sub-bituminous Coal	
Lignite		Lignite		Lignite	
Peat		Peat		Peat	
Patent Fuel		Patent Fuel		Patent Fuel	
Coke		Coke		Coke	
Coal Tar		Coal Tar		Coal Tar	
BKB/PB		BKB/PB		BKB/PB	
		Gas Works Gas		Gas Works Gas	
<b>Oil and Oil Products</b>					
Crude Oil		Crude Oil		Crude Oil	
Natural Gas Liquids		Natural Gas Liquids		Natural Gas Liquids	
Ethane		Ethane		Ethane	
LPG		LPG		LPG	
Naphtha		Naphtha		Naphtha	
Motor Gasoline		Motor Gasoline		Motor Gasoline	NZD/liter 2.094
Aviation Gasoline		Aviation Gasoline		Aviation Gasoline	
Gasoline Type Jet Fuel		Gasoline Type Jet Fuel		Gasoline Type Jet Fuel	
Kerosene Type Jet Fuel		Kerosene Type Jet Fuel		Kerosene Type Jet Fuel	
Other Kerosene		Other Kerosene		Other Kerosene	
Gas/Diesel Oil		Gas/Diesel Oil		Gas/Diesel Oil	NZD/liter 1.502
Fuel Oil		Fuel Oil		Fuel Oil	NZD/ton 856.4
White Spirit SBP		White Spirit SBP		White Spirit SBP	
Lubricants		Lubricants		Lubricants	
Bitumen		Bitumen		Bitumen	
Paraffin Waxes		Paraffin Waxes		Paraffin Waxes	
Petroleum Coke		Petroleum Coke		Petroleum Coke	
<b>Natural Gas</b>					
Natural Gas		Natural Gas		NG (Households)	NZD/MWh 132.76
Liquefied Natural Gas		Liquefied Natural Gas		NG (Industry)	NZD/MWh 28.15
Compressed Natural Gas		Compressed Natural Gas			
<b>Electricity</b>					
Electricity		Electricity		Industrial	
				Commercial	
				Residential	NZD/MWh 263.51
				Others	
<b>Other Energy Products</b>					
Charcoal					

### 3.13 Papua New Guinea

**Energy Balance Table of Papua New Guinea**

	Coal	Coal Products	Crude Oil & NGL	Petroleum Products				
				Total	Gasoline	Naphtha	Jet Fuel	Kerosene
<b>2012</b>								
Indigenous Production	-	-	756	-	-	-	-	-
Import	-	-	1,111	921	30	-	-	27 575
Export	-	-	-755	-525	-	-187	-	- -211
International Marine Bunkers	-	-	-	-	-	-	-	-
International Aviation Bunkers	-	-	-	-	-	-	-	-
Stock Changes	-	-	-44	35	5	25	2	-8
<b>Total Primary Energy Supply</b>	-	-	<b>1,069</b>	<b>431</b>	<b>35</b>	<b>-162</b>	<b>2</b>	<b>27 356</b>
Transfers	-	-	-	0	64	-105	-	-41
<b>Total Transformation Sector</b>	-	-	<b>-1,063</b>	<b>453</b>	<b>14</b>	<b>272</b>	<b>108</b>	<b>16 187</b>
Main Activity Producer	-	-	-	-99	-	-	-	-51
Autoproducers	-	-	-	-500	-	-	-	-237
Gas Processing	-	-	-	-	-	-	-	-
Petroleum Refineries	-	-	-1,063	1,051	14	272	108	16 475
Coal Transformation	-	-	-	-	-	-	-	-
Other Transformation	-	-	-	-	-	-	-	-
Loss & Own Use	-	-	-	-	-	-	-	-
Discrepancy	-	-	-6	0	-0	0	0	-0 -0
<b>Total Final Energy Consumption</b>	-	-	-	<b>884</b>	<b>113</b>	<b>5</b>	<b>111</b>	<b>43 584</b>
<b>Industry Sector</b>	-	-	-	<b>199</b>	-	<b>5</b>	-	- <b>177</b>
Iron and Steel	-	-	-	-	-	-	-	-
Chemical & Petrochemical	-	-	-	-	-	-	-	-
Non-metallic Minerals	-	-	-	-	-	-	-	-
Other Industries	-	-	-	<b>199</b>	-	<b>5</b>	-	- <b>177</b>
<b>Transport Sector</b>	-	-	-	<b>517</b>	<b>113</b>	-	<b>111</b>	- <b>286</b>
Domestic Air Transport	-	-	-	-	-	-	-	-
Road	-	-	-	-	-	-	-	-
Rail	-	-	-	-	-	-	-	-
Inland Waterways	-	-	-	-	-	-	-	-
Pipeline Transport	-	-	-	-	-	-	-	-
Non-specified Transport	-	-	-	<b>517</b>	<b>113</b>	-	<b>111</b>	- <b>286</b>
<b>Other Sector</b>	-	-	-	<b>167</b>	-	-	-	<b>43 122</b>
Residential	-	-	-	-	-	-	-	-
Commerce and Public Services	-	-	-	-	-	-	-	-
Agriculture	-	-	-	-	-	-	-	-
Non-specified Others	-	-	-	<b>167</b>	-	-	-	<b>43 122</b>
<b>Non-energy</b>	-	-	-	-	-	-	-	-
<b>2011</b>								
Indigenous Production	-	-	890	-	-	-	-	-
Import	-	-	982	740	83	-	-	28 384
Export	-	-	-886	-	-	-	-	-
International Marine Bunkers	-	-	-	-	-	-	-	-
International Aviation Bunkers	-	-	-	-	-	-	-	-
Stock Changes	-	-	-13	1	-0	1	2	-2
<b>Total Primary Energy Supply</b>	-	-	<b>973</b>	<b>741</b>	<b>83</b>	<b>1</b>	<b>2</b>	<b>28 382</b>
Transfers	-	-	-	-4	26	-229	-10	14 194
<b>Total Transformation Sector</b>	-	-	<b>-966</b>	<b>357</b>	-	<b>238</b>	<b>103</b>	- <b>206</b>
Main Activity Producer	-	-	-	-104	-	-	-	-51
Autoproducers	-	-	-	-495	-	-	-	-211
Gas Processing	-	-	-	-	-	-	-	-
Petroleum Refineries	-	-	-966	956	-	238	103	- 468
Coal Transformation	-	-	-	-	-	-	-	-
Other Transformation	-	-	-	-	-	-	-	-
Loss & Own Use	-	-	-	-	-	-	-	-
Discrepancy	-	-	-2	1	-0	0	0	0 0
<b>Total Final Energy Consumption</b>	-	-	-	<b>4</b>	<b>1,095</b>	<b>108</b>	<b>11</b>	<b>96 42 782</b>
<b>Industry Sector</b>	-	-	-	<b>4</b>	<b>484</b>	-	<b>11</b>	- <b>440</b>
Iron and Steel	-	-	-	-	-	-	-	-
Chemical & Petrochemical	-	-	-	-	-	-	-	-
Non-metallic Minerals	-	-	-	-	-	-	-	-
Other Industries	-	-	<b>4</b>	<b>484</b>	-	<b>11</b>	-	- <b>440</b>
<b>Transport Sector</b>	-	-	-	<b>438</b>	<b>108</b>	-	<b>96</b>	- <b>227</b>
Domestic Air Transport	-	-	-	-	-	-	-	-
Road	-	-	-	-	-	-	-	-
Rail	-	-	-	-	-	-	-	-
Inland Waterways	-	-	-	-	-	-	-	-
Pipeline Transport	-	-	-	-	-	-	-	-
Non-specified Transport	-	-	-	<b>438</b>	<b>108</b>	-	<b>96</b>	- <b>227</b>
<b>Other Sector</b>	-	-	-	<b>173</b>	-	-	-	<b>42 115</b>
Residential	-	-	-	-	-	-	-	-
Commerce and Public Services	-	-	-	-	-	-	-	-
Agriculture	-	-	-	-	-	-	-	-
Non-specified Others	-	-	-	<b>173</b>	-	-	-	<b>42 115</b>
<b>Non-energy</b>	-	-	-	-	-	-	-	-

unit: ktoe

Fuel Oil	LPG	Refinery Gas	Ethane	Other Products	Gas	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
<b> </b>												
-	-	-	-	-	137	86	-	363	-	-	-	1,341
280	10	-	-	-	-	-	-	-	-	-	-	2,033
-90	-17	-	-	-20	-	-	-	-	-	-	-	-1,280
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-9
11	-	-	-	-	-	-	-	-	-	-	-	-9
<b>200</b>	<b>-7</b>	<b>-</b>	<b>-</b>	<b>-20</b>	<b>137</b>	<b>86</b>	<b>-</b>	<b>363</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2,085</b>
-	-	-	-	-	-	-	-	-	-	-	-	0
-177	11	-	-	20	-123	-86	-	-363	-	348	-	-834
-47	-	-	-	-	-	-55	-	-	-	84	-	-70
-263	-	-	-	-	-123	-31	-	-363	-	264	-	-752
-	-	-	-	-	-	-	-	-	-	-	-	-
134	11	-	-	20	-	-	-	-	-	-	-	-12
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-6	-	-	-	-	-23	-	-29
-0	0	-	-	-	-7	-	-	-	-	-0	-	-13
<b>23</b>	<b>5</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>325</b>	<b>-</b>	<b>1,209</b>
15	2	-	-	-	-	-	-	-	-	246	-	445
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
15	2	-	-	-	-	-	-	-	-	246	-	445
8	-	-	-	-	-	-	-	-	-	-	-	517
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	517
-	3	-	-	-	-	-	-	-	-	80	-	247
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	80	-	247
-	-	-	-	-	-	-	-	-	-	-	-	-
<b> </b>												
-	-	-	-	-	128	71	-	344	-	-	-	1,433
235	11	-	-	-	-	-	-	-	-	-	-	1,722
-	-	-	-	-	-	-	-	-	-	-	-	-886
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-12
<b>234</b>	<b>11</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>128</b>	<b>71</b>	<b>-</b>	<b>344</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2,257</b>
-	-	-	-	-	-	-	-	-	-	-	-	-4
-210	7	-	-	13	-123	-71	-	-344	-	338	-	-810
-53	-	-	-	-	-	-40	-	-	-	83	-	-61
-284	-	-	-	-	-123	-32	-	-344	-	255	-	-738
-	-	-	-	-	-	-	-	-	-	-	-	-
126	7	-	-	13	-	-	-	-	-	-	-	-11
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-5	-	-	-	-	-26	-	-31
0	0	-	-	-	0	-	-	-	-	0	-	-1
<b>24</b>	<b>18</b>	<b>-</b>	<b>-</b>	<b>13</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>344</b>	<b>-</b>	<b>312</b>	<b>-</b>	<b>1,411</b>
17	16	-	-	-	-	-	-	-	-	235	-	722
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
17	16	-	-	-	-	-	-	-	-	235	-	722
7	-	-	-	-	-	-	-	-	-	-	-	438
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	438
-	3	-	-	13	-	-	-	-	-	77	-	251
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	3	-	-	13	-	-	-	-	-	77	-	251
-	-	-	-	-	-	-	-	-	-	-	-	-

**Major Energy Indicators of Papua New Guinea**

	1990	2000	2005	2008	2009	2010	2011	2012	ktoe
<b>Total</b>									
Primary Energy Supply	866	1,123	1,742	2,116	2,259	2,208	2,257	2,085	
Indigenous Production	4,612	3,866	2,778	2,643	2,566	1,428	1,433	1,341	
Import	797	908	1,733	1,628	1,614	1,684	1,722	2,033	
Export	-4,512	-3,651	-2,767	-2,044	-1,943	-886	-886	-1,280	
Final Energy Consumption	613	880	1,171	1,297	1,333	1,370	1,411	1,209	
Industry	190	480	597	673	689	706	722	445	
Transport	209	306	354	396	409	424	438	517	
Residential	35	-	-	-	-	-	-	-	
Commerce & Public Services	-	-	-	-	-	-	-	-	
Others	179	94	220	228	235	240	251	247	
<b>Coal, Coal Products</b>									
Primary Energy Supply	1	-	-	-	-	-	-	-	
Indigenous Production	-	-	-	-	-	-	-	-	
Import	1	-	-	-	-	-	-	-	
Export	-	-	-	-	-	-	-	-	
Transformation Sector	-	-	-	-	-	-	-	-	
Power Generation	-	-	-	-	-	-	-	-	
Final Energy Consumption	1	-	-	-	-	-	-	-	
Industry	-	-	-	-	-	-	-	-	
Transport	-	-	-	-	-	-	-	-	
Residential	-	-	-	-	-	-	-	-	
Commerce & Public Services	-	-	-	-	-	-	-	-	
Others	1	-	-	-	-	-	-	-	
<b>Crude Oil</b>									
Primary Energy Supply	-	-	1,036	844	901	972	973	1,069	
Indigenous Production	4,500	3,651	2,462	2,102	2,022	890	890	756	
Import	-	-	917	870	753	993	982	1,111	
Export	-4,500	-3,651	-2,344	-2,044	-1,943	-886	-886	-755	
Transformation Sector	-	-	-993	-799	-825	-966	-966	-1,063	
Petroleum Refineries	-	-	-993	-799	-825	-966	-966	-1,063	
<b>Petroleum Products</b>									
Primary Energy Supply	753	908	391	732	814	699	741	431	
Import	796	908	816	758	861	691	740	921	
Export	-12	-	-423	-	-	-	-	-525	
Transformation Sector	-	-	527	282	245	370	357	453	
Power Generation	-345	-222	-474	-542	-596	-573	-599	-598	
Petroleum Refineries	-	-	1,000	824	841	943	956	1,051	
Final Energy Consumption	398	686	895	1,003	1,034	1,062	1,095	884	
Industry	87	338	402	450	461	472	484	199	
Transport	209	306	354	396	409	424	438	517	
Residential	24	-	-	-	-	-	-	-	
Commerce & Public Services	-	-	-	-	-	-	-	-	
Others	78	42	139	157	163	166	173	167	
<b>Natural Gas</b>									
Primary Energy Supply	72	119	125	123	126	123	128	137	
Indigenous Production	72	119	125	123	126	123	128	137	
Import	-	-	-	-	-	-	-	-	
Export	-	-	-	-	-	-	-	-	
Transformation Sector	-	-	-120	-118	-118	-118	-123	-123	
Power Generation	-	-119	-120	-118	-118	-118	-123	-123	
Final Energy Consumption	72	-	-	-	-	-	-	-	
Industry	-	-	-	-	-	-	-	-	
Transport	-	-	-	-	-	-	-	-	
Residential	-	-	-	-	-	-	-	-	
Commerce & Public Services	-	-	-	-	-	-	-	-	
Others	72	-	-	-	-	-	-	-	
<b>Electricity</b>									
Power Generation	154	204	281	309	322	329	338	348	
Thermal	114	108	193	201	214	223	232	226	
Hydro	40	80	77	74	73	71	71	86	
Nuclear	-	-	-	-	-	-	-	-	
Others	-	16	11	34	34	34	34	36	
Final Energy Consumption	142	194	263	291	296	304	312	325	
Industry	103	142	195	219	224	229	235	246	
Transport	-	-	-	-	-	-	-	-	
Residential	11	-	-	-	-	-	-	-	
Commerce & Public Services	-	-	-	-	-	-	-	-	
Others	28	52	68	72	72	74	77	80	

### Major Economic Indicators of Papua New Guinea

	1990	2000	2005	2008	2009	2010	2003	2003
Population (Millions) *1	4.16	5.38	6.10	6.55	6.70	6.86	7.01	7.17
Gross Domestic Product *3								
Real Term (Billions of 2010 Price and 2010 USD)	4.38	6.54	7.09	8.32	8.78	9.48	10.33	11.16
Real Term (Billions of 2010 Price and 2010 PPP)	6.57	9.81	10.64	12.48	13.17	14.22	15.50	16.74
Nominal (Billions of Current USD)	3.22	3.50	4.90	8.01	7.93	9.48	12.39	15.65
GDP per Capita *3								
Real Term (2010 Price and 2010 USD)	1,053	1,216	1,163	1,270	1,309	1,382	1,473	1,557
Real Term (2010 Price and 2010 PPP)	1,579	1,824	1,745	1,905	1,964	2,074	2,210	2,336
Nominal (Current USD)	775	651	804	1,223	1,183	1,382	1,767	2,184
Nominal GDP & its Components (Billions of Current PGK) *1								
Gross Domestic Product	3.08	9.74	15.19	21.63	21.84	25.78	29.38	32.62
Household Final Consumption Expenditure, etc.	1.82	4.34	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
General Government Final Consumption Expenditure	0.76	1.61	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Gross Fixed Capital Formation	0.77	1.99	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Stock Change	-0.02	0.14	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Exports of Goods and Services	1.25	6.44	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Imports of Goods and Services	1.51	4.79	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Real GDP & its Components (Billions of 1983 PGK) *1								
Gross Domestic Product	5.19	7.75	8.40	9.86	10.40	11.23	12.24	13.22
Household Final Consumption Expenditure, etc.	3.06	3.30	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
General Government Final Consumption Expenditure	1.10	1.45	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Gross Fixed Capital Formation	1.33	1.78	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Stock Change	-0.04	0.13	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Exports of Goods and Services	2.54	5.23	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Imports of Goods and Services	2.90	4.14	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Sectional Shares of Real GDP (%) *1								
Agriculture, Fishery and Forest	39.1	39.4	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Industry	22.5	31.4	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Services, etc.	40.1	23.8	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Industrial Production Index (2005=100)	N.A.							
External Trade (Billions of Current USD) *1								
Exports, f.o.b.	1.177	2.096	3.273	5.713	4.394	5.742	6.908	6.500
Imports, c.i.f.	1.193	1.151	1.729	3.510	3.210	3.950	4.800	5.500
Balance of Payments (Billions of Current USD) *2								
Trade Balance	N.A.	N.A.	1.792	2.665	1.521	2.216	2.675	1.566
Current Account	N.A.	N.A.	0.539	0.708	-0.852	-0.914	-0.702	-2.834
Overall Balance	N.A.	N.A.	-0.034	-0.333	0.331	0.161	-0.037	-0.582
Foreign Exchange Rate (PGK/USD) *1	0.9550	2.7822	3.1019	2.7001	2.7551	2.7193	2.3710	2.0836
Purchasing Power Parity (PGK/International Dollar) *1	0.7092	1.2263	1.5716	1.7672	1.6789	1.8124	1.8590	1.8778
Price Indices								
GDP Deflator (1998=100) *3	59.3	125.6	180.8	219.4	210.0	229.5	240.0	246.7
Wholesale Price Index (2005=100)	N.A.							
Consumer Price Index (2010=100) *2	21.4	52.9	77.1	88.2	94.3	100.0	108.4	110.9
Growth Rate (%) *3								
Real GDP	-3.01	-2.49	3.60	6.70	5.50	8.00	9.00	8.00
Population	2.48	2.64	2.48	2.40	2.35	2.30	2.25	2.20
Price								
Wholesale Price Index	N.A.							
Consumer Price Index	7.0	15.6	1.8	10.8	6.9	6.0	8.4	2.2

Source : \*1 : "World Development Indicators", World Bank

\*2 : "International Financial Statistics", International Monetary Fund

\*3 : Calculated from \*1 and \*2 by the Coordinating Agency

Note : N.A. means "not available"

: PGK means Kina, USD means United States Dollar

: PPP means Purchasing Power Parity

### **3.14 Peru**

### Energy Balance Table of Peru

	Coal	Coal Products	Crude Oil & NGL	Petroleum Products				
				Total	Gasoline	Naphtha	Jet Fuel	Kerosene
<b>2012</b>								
Indigenous Production	148	-	6,900	-	-	-	-	-
Import	455	1	4,582	2,750	185	812	74	-
Export	-89	-27	-788	-4,352	-1,874	-146	-553	-22
International Marine Bunkers	-	-	-	-	-	-	-	-
International Aviation Bunkers	-	-	-	-	-	-	-	-
Stock Changes	333	26	180	1,059	248	-227	418	-10
<b>Total Primary Energy Supply</b>	<b>847</b>	<b>0</b>	<b>10,874</b>	<b>-544</b>	<b>-1,440</b>	<b>440</b>	<b>-61</b>	<b>-1,646</b>
Transfers	-	-	-1,346	1,337	1,039	-253	-1	-888
<b>Total Transformation Sector</b>	<b>-307</b>	<b>-</b>	<b>-9,537</b>	<b>9,115</b>	<b>1,846</b>	<b>535</b>	<b>778</b>	<b>-4,129</b>
Main Activity Producer	-162	-	-	-211	-	-	-	-103
Autoproducers	-145	-	-	-212	-	-	-	-97
Gas Processing	-	-	-	-	-	-	-	-
Petroleum Refineries	-	-	-9,754	9,538	1,846	535	778	-4,329
Coal Transformation	-	-	-	-	-	-	-	-
Other Transformation	-	-	216	-	-	-	-	-
Loss & Own Use	-	-	-	-277	-17	-6	-	-8
Discrepancy	33	0	9	-114	21	-12	22	-165
<b>Total Final Energy Consumption</b>	<b>574</b>	<b>0</b>	<b>-</b>	<b>9,517</b>	<b>1,448</b>	<b>704</b>	<b>738</b>	<b>-4,713</b>
<b>Industry Sector</b>	<b>572</b>	<b>0</b>	<b>-</b>	<b>1,284</b>	<b>19</b>	<b>-</b>	<b>-</b>	<b>695</b>
Iron and Steel	61	0	-	-	-	-	-	-
Chemical & Petrochemical	-	-	-	-	-	-	-	-
Non-metallic Minerals	-	-	-	-	-	-	-	-
Other Industries	510	-	-	1,284	19	-	-	695
<b>Transport Sector</b>	-	-	-	6,314	1,234	-	738	-3,837
Domestic Air Transport	-	-	-	738	-	-	738	-
Road	-	-	-	5,576	1,234	-	-	3,837
Rail	-	-	-	-	-	-	-	-
Inland Waterways	-	-	-	-	-	-	-	-
Pipeline Transport	-	-	-	-	-	-	-	-
Non-specified Transport	-	-	-	-	-	-	-	-
<b>Other Sector</b>	<b>2</b>	<b>-</b>	<b>-</b>	<b>1,215</b>	<b>195</b>	<b>-</b>	<b>-</b>	<b>181</b>
Residential	-	-	-	712	-	-	-	-
Commerce and Public Services	-	-	-	324	176	-	-	75
Agriculture	2	-	-	42	19	-	-	22
Non-specified Others	-	-	-	138	1	-	-	84
<b>Non-energy</b>	-	-	-	<b>704</b>	-	<b>704</b>	-	-
<b>2011</b>								
Indigenous Production	114	-	6,740	-	-	-	-	-
Import	424	9	4,640	2,988	220	1,042	97	-
Export	-119	-	-803	-3,537	-1,558	-27	-520	-75
International Marine Bunkers	-	-	-	-	-	-	-	-
International Aviation Bunkers	-	-	-	-	-	-	-	-
Stock Changes	380	-9	-72	259	91	-205	653	-73
<b>Total Primary Energy Supply</b>	<b>799</b>	<b>-</b>	<b>10,505</b>	<b>-290</b>	<b>-1,248</b>	<b>811</b>	<b>230</b>	<b>-1,434</b>
Transfers	-	-	-848	709	869	-303	-164	-986
<b>Total Transformation Sector</b>	<b>-289</b>	<b>-</b>	<b>-9,653</b>	<b>9,138</b>	<b>1,772</b>	<b>281</b>	<b>684</b>	<b>-3,981</b>
Main Activity Producer	-197	-	-	-208	-	-	-	-78
Autoproducers	-93	-	-	-214	-	-	-	-94
Gas Processing	-	-	-	-	-	-	-	-
Petroleum Refineries	-	-	-9,874	9,560	1,772	281	684	-4,153
Coal Transformation	-	-	-	-	-	-	-	-
Other Transformation	-	-	220	-	-	-	-	-
Loss & Own Use	-	-	-	-301	-18	-3	-	-2
Discrepancy	48	-	-4	354	125	-11	34	-218
<b>Total Final Energy Consumption</b>	<b>557</b>	<b>-</b>	<b>-</b>	<b>9,609</b>	<b>1,500</b>	<b>775</b>	<b>784</b>	<b>-4,645</b>
<b>Industry Sector</b>	<b>556</b>	<b>-</b>	<b>-</b>	<b>1,365</b>	<b>77</b>	<b>-</b>	<b>-</b>	<b>672</b>
Iron and Steel	59	-	-	-	-	-	-	-
Chemical & Petrochemical	-	-	-	-	-	-	-	-
Non-metallic Minerals	-	-	-	-	-	-	-	-
Other Industries	497	-	-	1,365	77	-	-	672
<b>Transport Sector</b>	-	-	-	6,219	1,178	-	784	-3,820
Domestic Air Transport	-	-	-	784	-	-	784	-
Road	-	-	-	5,435	1,178	-	-	3,820
Rail	-	-	-	-	-	-	-	-
Inland Waterways	-	-	-	-	-	-	-	-
Pipeline Transport	-	-	-	-	-	-	-	-
Non-specified Transport	-	-	-	-	-	-	-	-
<b>Other Sector</b>	<b>2</b>	<b>-</b>	<b>-</b>	<b>1,250</b>	<b>245</b>	<b>-</b>	<b>-</b>	<b>153</b>
Residential	-	-	-	732	-	-	-	64
Commerce and Public Services	-	-	-	235	167	-	-	-
Agriculture	2	-	-	96	76	-	-	19
Non-specified Others	-	-	-	188	2	-	-	71
<b>Non-energy</b>	-	-	-	<b>775</b>	-	<b>775</b>	-	-

Note: Others Excludes non-commercial biomass supply and consumption.

unit: ktoe

Fuel Oil	LPG	Refinery Gas	Ethane	Other Products	Gas	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
-	-	-	-	-	11,992	1,836	-	9	348	-	-	21,233
-	1	-	-	-	-	-	-	-	282	0	-	8,070
-1,613	-145	-	-	-	-5,167	-	-	-	-25	-	-	-10,447
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
652	-23	-	-	-	-	-	-	-	-127	-	-	1,471
-962	-167	-	-	-	6,826	1,836	-	9	478	0	-	20,327
-58	1,498	-	-	-	-	-	-	-	-	-	-	-10
1,453	208	166	-	-	-3,929	-1,836	-	-2	-475	3,432	-	-3,539
-108	-	-	-	-	-3,728	-1,794	-	-2	-74	3,212	-	-2,759
-86	-	-29	-	-	-201	-42	-	-	-119	220	-	-499
-	-	-	-	-	-	-	-	-	-	-	-	-
1,648	208	194	-	-	-	-	-	-	-	-	-	-215
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-282	-	-	-66
-77	-0	-167	-	-	-1,269	-	-	-	-	-315	-	-1,861
20	-1	2	-	-	-201	-	-	-0	-3	-1	-	-275
376	1,538	-	-	-	1,427	-	-	7	-	3,117	-	14,642
118	452	-	-	-	759	-	-	-	-	1,649	-	4,264
-	-	-	-	-	-	-	-	-	-	775	-	837
-	-	-	-	-	-	-	-	-	-	-	-	-
118	452	-	-	-	759	-	-	-	-	873	-	3,427
207	299	-	-	-	558	-	-	-	-	0	-	6,873
-	-	-	-	-	-	-	-	-	-	-	-	738
207	299	-	-	-	558	-	-	-	-	-	-	6,134
-	-	-	-	-	-	-	-	-	0	-	-	0
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
52	787	-	-	-	109	-	-	7	-	1,468	-	2,801
-	712	-	-	-	18	-	-	2	-	750	-	1,482
-	73	-	-	-	92	-	-	5	-	628	-	1,049
-	1	-	-	-	-	-	-	0	-	64	-	108
52	2	-	-	-	-	-	-	0	-	25	-	163
-	-	-	-	-	-	-	-	-	-	-	-	704
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
46	0	-	-	-	-	-	-	-	216	0	-	8,277
-1,162	-194	-	-	-	-5,184	-	-	-	-4	-	-	-9,647
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-220	13	-	-	-	-	-	-	-42	-	-	-	517
-1,336	-180	-	-	-	6,304	1,856	-	6	525	0	-	19,707
-52	1,346	-	-	-	-	-	-	-	-	-	-	-139
2,042	206	171	-	-	-3,499	-1,856	-	-	-525	3,373	-	-3,312
-130	-	-	-	-	-3,323	-1,810	-	-	-67	3,120	-	-2,485
-92	-	-28	-	-	-176	-47	-	-	-170	253	-	-446
-	-	-	-	-	-	-	-	-	-	-	-	-
2,264	206	199	-	-	-	-	-	-	-	-	-	-314
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-287	-	-	-	-67
-106	-0	-171	-	-	-1,410	-	-	-	-	-308	-	-2,020
-13	1	-0	-	-	-4	0	-	-1	-117	-	-	276
533	1,372	-	-	-	1,390	-	-	6	-	2,949	-	14,513
274	342	-	-	-	828	-	-	-	-	1,560	-	4,308
-	-	-	-	-	-	-	-	-	-	734	-	792
-	-	-	-	-	-	-	-	-	-	-	-	-
274	342	-	-	-	828	-	-	-	-	826	-	3,516
145	292	-	-	-	397	-	-	-	-	0	-	6,617
-	-	-	-	-	-	-	-	-	-	-	-	784
145	292	-	-	-	397	-	-	-	-	-	-	5,833
-	-	-	-	-	-	-	-	-	0	-	-	0
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
114	738	-	-	-	165	-	-	6	-	1,389	-	2,813
-	668	-	-	-	10	-	-	3	-	710	-	1,454
-	68	-	-	-	156	-	-	3	-	594	-	988
-	1	-	-	-	-	-	-	0	-	61	-	158
114	1	-	-	-	-	-	-	0	-	24	-	212
-	-	-	-	-	-	-	-	-	-	-	-	775

**Major Energy Indicators of Peru**

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	1990	2000	2005	2008	2009	2010	2011	2012
<b>Total</b>								
Primary Energy Supply	7,537	11,047	11,127	13,260	13,708	17,030	19,707	20,327
Indigenous Production	8,193	7,832	8,064	10,876	12,439	16,945	20,560	21,233
Import	1,668	5,397	6,515	7,510	6,803	7,471	8,277	8,070
Export	-2,267	-2,094	-3,677	-4,080	-4,378	-10,295	-9,647	-10,447
Final Energy Consumption	6,208	9,200	8,971	11,002	12,067	12,518	14,513	14,642
Industry	1,958	3,336	3,454	4,162	3,941	3,688	4,308	4,264
Transport	2,499	3,386	3,491	4,382	5,464	6,048	6,617	6,873
Residential	-	-	1,213	1,274	1,257	1,312	1,454	1,482
Commerce & Public Services	-	-	436	562	848	924	988	1,049
Others	1,751	2,478	377	623	557	546	1,145	974
<b>Coal, Coal Products</b>								
Primary Energy Supply	145	630	928	923	829	733	799	848
Indigenous Production	68	12	30	99	225	60	114	148
Import	71	588	807	648	553	631	433	456
Export	-	-	-	-	-	-70	-119	-115
Transformation Sector	-	-	-330	-329	-258	-257	-289	-307
Power Generation	-	-99	-230	-251	-258	-257	-289	-307
Final Energy Consumption	100	430	591	579	580	599	557	574
Industry	93	430	591	579	580	599	556	572
Transport	-	-	-	-	-	-	-	-
Residential	-	-	-	-	-	-	-	-
Commerce & Public Services	-	-	-	-	-	-	-	-
Others	7	0	0	-	-	-	2	2
<b>Crude Oil</b>								
Primary Energy Supply	7,149	7,268	8,258	9,531	10,792	11,147	10,505	10,874
Indigenous Production	6,493	4,829	4,074	5,611	6,733	7,115	6,740	6,900
Import	888	3,090	4,698	4,979	5,024	4,881	4,640	4,582
Export	-150	-687	-609	-925	-1,011	-968	-803	-788
Transformation Sector	-	-	-7,782	-9,146	-9,571	-10,388	-9,653	-9,537
Petroleum Refineries	-7,432	-7,740	-7,782	-8,871	-9,571	-10,435	-9,874	-9,754
<b>Petroleum Products</b>								
Primary Energy Supply	-1,389	158	-2,019	-2,360	-3,437	-2,533	-290	-544
Import	709	1,720	1,010	1,882	1,176	1,876	2,988	2,750
Export	-2,117	-1,407	-3,068	-3,155	-3,362	-7,104	-3,537	-4,352
Transformation Sector	-	-	7,365	8,018	8,826	9,499	9,138	9,115
Power Generation	-760	-686	-608	-691	-512	-632	-422	-423
Petroleum Refineries	7,449	7,763	7,973	8,708	9,338	10,131	9,560	9,538
Final Energy Consumption	5,020	7,225	6,299	7,123	8,157	8,067	9,609	9,517
Industry	1,210	2,021	1,609	1,591	1,470	940	1,365	1,284
Transport	2,499	3,386	3,491	4,252	5,245	5,681	6,219	6,314
Residential	-	-	609	663	623	652	732	712
Commerce & Public Services	-	-	258	63	286	323	235	324
Others	1,311	1,818	331	554	533	471	1,058	883
<b>Natural Gas</b>								
Primary Energy Supply	757	1,547	2,221	3,321	3,510	5,496	6,304	6,826
Indigenous Production	757	1,547	2,221	3,321	3,510	7,626	11,488	11,992
Import	-	-	-	-	-	-	-	-
Export	-	-	-	-	-	-2,130	-5,184	-5,167
Transformation Sector	-	-	-1,558	-2,040	-2,098	-3,129	-3,499	-3,929
Power Generation	-75	-226	-1,263	-2,040	-2,098	-3,129	-3,499	-3,929
Final Energy Consumption	74	1	179	737	769	1,135	1,390	1,427
Industry	28	-	179	594	489	704	828	759
Transport	-	-	0	130	220	367	397	558
Residential	-	-	0	5	3	6	10	18
Commerce & Public Services	-	-	-	x	33	50	156	92
Others	46	1	-	8	24	8	-	-
<b>Electricity</b>								
Power Generation	1,132	1,713	2,194	2,837	2,841	3,088	3,373	3,432
Thermal	257	322	534	1,041	967	1,126	1,280	1,401
Hydro	875	1,391	1,546	1,637	1,708	1,724	1,856	1,836
Nuclear	-	-	-	-	-	-	-	-
Others	-	-	114	158	165	237	237	195
Final Energy Consumption	1,014	1,490	1,900	2,563	2,561	2,717	2,949	3,117
Industry	627	884	1,075	1,397	1,401	1,445	1,560	1,649
Transport	-	-	-	-	-	-	0	0
Residential	-	-	603	607	630	654	710	750
Commerce & Public Services	-	-	177	499	530	551	594	628
Others	387	606	46	61	-	67	85	89

### Major Economic Indicators of Peru

	1990	2000	2005	2008	2009	2010	2011	2012
Population (Millions) *1	21.77	26.00	27.72	28.63	28.93	29.26	29.61	29.99
Gross Domestic Product *3								
Real Term (Billions of 2010 Price and 2010 USD)	58.38	86.20	106.43	135.55	136.97	148.54	158.13	167.54
Real Term (Billions of 2010 Price and 2010 PPP)	111.83	165.13	203.88	259.66	262.38	284.56	302.92	320.94
Nominal (Billions of Current USD)	27.55	50.72	74.15	121.45	121.22	148.54	170.60	192.68
GDP per Capita *3								
Real Term (2010 Price and 2010 USD)	2,681	3,315	3,839	4,735	4,734	5,076	5,340	5,587
Real Term (2010 Price and 2010 PPP)	5,137	6,351	7,354	9,071	9,068	9,724	10,228	10,702
Nominal (Current USD)	1,266	1,951	2,675	4,243	4,190	5,076	5,761	6,425
Nominal GDP & its Components (Billions of Current PEN) *1								
Gross Domestic Product	5.18	177.03	244.39	355.16	365.07	419.66	469.85	508.21
Household Final Consumption Expenditure, etc.	3.85	127.54	162.82	220.11	232.37	256.46	281.72	310.04
General Government Final Consumption Expenditure	0.46	21.17	28.70	36.76	42.12	44.53	48.11	55.00
Gross Fixed Capital Formation	0.76	32.70	43.06	85.12	85.19	105.20	112.66	131.17
Stock Change	0.02	-0.08	-4.90	12.04	-9.04	0.42	8.25	4.61
Exports of Goods and Services	0.85	29.49	64.87	101.00	91.94	111.47	139.34	135.19
Imports of Goods and Services	0.76	33.79	50.16	99.86	77.51	98.43	120.22	127.80
Real GDP & its Components (Billions of 1994 PEN) *1								
Gross Domestic Product	150.28	221.90	273.97	348.92	352.58	382.38	407.05	431.27
Household Final Consumption Expenditure, etc.	113.29	157.80	181.18	209.38	215.28	234.03	248.05	263.18
General Government Final Consumption Expenditure	16.21	25.39	29.71	35.23	39.81	42.04	44.06	47.63
Gross Fixed Capital Formation	13.72	23.74	27.70	80.94	79.68	98.10	103.98	120.88
Stock Change	0.21	-0.05	-0.67	11.68	-8.66	0.49	7.31	4.04
Exports of Goods and Services	25.80	55.91	90.53	104.43	103.67	105.04	112.31	116.49
Imports of Goods and Services	18.96	40.89	54.47	92.72	77.19	97.32	108.65	120.95
Sectional Shares of Real GDP (%) *1								
Agriculture, Fishery and Forest	6.8	7.6	6.9	6.6	6.6	6.2	6.3	6.0
Industry	33.5	35.5	38.2	37.8	36.9	36.7	36.2	35.7
Services, etc.	50.4	47.7	46.5	47.0	48.1	48.2	48.8	49.4
Manufacturing Production Index (2010=100) *2	41.2	58.7	74.6	96.8	90.3	100.0	108.6	110.1
External Trade (Billions of Current USD) *1								
Exports, f.o.b.	3.230	7.028	17.368	31.019	26.962	35.565	46.268	45.639
Imports, c.i.f.	2.634	7.415	12.502	29.982	21.865	30.126	38.011	42.545
Balance of Payments (Billions of Current USD) *2								
Trade Balance	N.A.	N.A.	5.583	2.940	6.153	7.175	10.005	5.559
Current Account	N.A.	N.A.	1.148	-5.318	-0.723	-3.782	-3.341	-6.842
Overall Balance	N.A.	N.A.	1.049	3.579	3.313	9.494	5.695	13.200
Foreign Exchange Rate (PEN/USD) *1	0.1879	3.4900	3.2958	2.9244	3.0115	2.8251	2.7541	2.6376
Purchasing Power Parity (PEN/International Dollar) *1	0.0701	1.3250	1.3188	1.3950	1.4082	1.4748	1.5212	1.5263
Price Indices								
GDP Deflator (2007=100) *3	3.4	79.8	89.2	101.8	103.5	109.7	115.4	117.8
Wholesale Price Index (2010=100) *2	4.7	79.0	86.8	100.0	98.2	100.0	106.6	108.2
Consumer Price Index (2010=100) *2	3.1	79.2	87.1	95.7	98.5	100.0	103.4	107.1
Growth Rate (%) *3								
Real GDP	-5.14	2.95	6.28	9.14	1.05	8.45	6.45	5.95
Population	2.09	1.52	1.17	1.05	1.08	1.14	1.20	1.26
Price								
Wholesale Price Index	6,737.4	4.3	2.3	8.9	-1.8	1.8	6.6	1.5
Consumer Price Index	7,481.6	3.8	1.6	5.8	2.9	1.5	3.4	3.7

Source : \*1 : "World Development Indicators", World Bank

\*2 : "International Financial Statistics", International Monetary Fund

\*3 : Calculated from \*1 and \*2 by the Coordinating Agency

Note : N.A. means "not available"

: PEN means Nuevo Sol, USD means United States Dollar

: PPP means Purchasing Power Parity

### 3.15 Philippines

### Energy Balance Table of Philippines

	Coal	Coal Products	Crude Oil & NGL	Petroleum Products				
				Total	Gasoline	Naphtha	Jet Fuel	Kerosene
<b>2012</b>								
Indigenous Production	3,879	-	220	-	-	-	-	-
Import	6,278	-	8,872	6,755	1,821	-	744	36
Export	-1,675	-	-141	-626	-15	-197	-	-50
International Marine Bunkers	-	-	-	-181	-	-	-	-17
International Aviation Bunkers	-	-	-	-1,082	-	-	-1,082	-
Stock Changes	834	-	82	-74	-18	14	0	3
<b>Total Primary Energy Supply</b>	<b>9,316</b>	-	<b>9,033</b>	<b>4,793</b>	<b>1,788</b>	<b>-184</b>	<b>-338</b>	<b>39</b>
Transfers	-	-	-	-	-	-	-	-
Total Transformation Sector	-6,300	-	-8,280	7,256	1,751	146	684	91
Main Activity Producer	-6,300	-	-	-971	-	-	-	-194
Autoproducers	-	-	-	-	-	-	-	-
Gas Processing	-	-	-	-	-	-	-	-
Petroleum Refineries	-	-	-8,402	8,227	1,751	146	684	91
Coal Transformation	-	-	-	-	-	-	-	3,174
Other Transformation	-	-	122	-	-	-	-	-
Loss & Own Use	-	-	-	-	-	-	-	-
Discrepancy	-1,118	-	-754	-493	-552	37	16	-6
<b>Total Final Energy Consumption</b>	<b>1,897</b>	-	-	<b>11,556</b>	<b>2,988</b>	-	<b>363</b>	<b>123</b>
Industry Sector	1,784	-	-	1,275	-	-	-	17
Iron and Steel	84	-	-	84	-	-	-	2
Chemical & Petrochemical	19	-	-	122	-	-	-	14
Non-metallic Minerals	1,591	-	-	172	-	-	-	0
Other Industries	91	-	-	897	-	-	-	54
Transport Sector	-	-	-	8,097	2,981	-	363	-
Domestic Air Transport	-	-	-	370	7	-	363	-
Road	-	-	-	7,097	2,930	-	-	4,128
Rail	-	-	-	-	-	-	-	-
Inland Waterways	-	-	-	630	43	-	-	402
Pipeline Transport	-	-	-	-	-	-	-	-
Non-specified Transport	-	-	-	-	-	-	-	-
Other Sector	113	-	-	2,051	7	-	-	106
Residential	-	-	-	901	-	-	-	105
Commerce and Public Services	-	-	-	967	-	-	-	634
Agriculture	-	-	-	28	0	-	-	26
Non-specified Others	113	-	-	154	7	-	-	1
<b>Non-energy</b>	<b>-</b>	-	-	<b>133</b>	-	-	-	-
<b>2011</b>								
Indigenous Production	3,632	-	313	-	-	-	-	-
Import	5,786	-	9,124	5,905	1,576	-	610	31
Export	-1,444	-	-329	-1,091	-34	-218	-	-6
International Marine Bunkers	-	-	-	-212	-	-	-	-24
International Aviation Bunkers	-	-	-	-1,071	-	-	-1,071	-
Stock Changes	-248	-	-88	202	1	-11	12	2
<b>Total Primary Energy Supply</b>	<b>7,726</b>	-	<b>9,019</b>	<b>3,734</b>	<b>1,543</b>	<b>-229</b>	<b>-449</b>	<b>27</b>
Transfers	-	-	-	-	-	-	-	-
Total Transformation Sector	-5,785	-	-9,187	8,263	1,756	171	773	99
Main Activity Producer	-5,785	-	-	-796	-	-	-	-181
Autoproducers	-	-	-	-	-	-	-	-
Gas Processing	-	-	-	-	-	-	-	-
Petroleum Refineries	-	-	-9,277	9,059	1,756	171	773	99
Coal Transformation	-	-	-	-	-	-	-	3,518
Other Transformation	-	-	90	-	-	-	-	-
Loss & Own Use	-	-	-	-	-	-	-	-
Discrepancy	-103	-	168	-702	-408	58	-20	6
<b>Total Final Energy Consumption</b>	<b>1,838</b>	-	-	<b>11,296</b>	<b>2,892</b>	-	<b>304</b>	<b>132</b>
Industry Sector	1,838	-	-	1,318	-	-	-	20
Iron and Steel	81	-	-	88	-	-	-	2
Chemical & Petrochemical	18	-	-	144	-	-	-	17
Non-metallic Minerals	1,650	-	-	179	-	-	-	0
Other Industries	89	-	-	906	-	-	-	48
Transport Sector	-	-	-	7,778	2,888	-	304	-
Domestic Air Transport	-	-	-	307	3	-	304	-
Road	-	-	-	6,805	2,843	-	-	3,917
Rail	-	-	-	-	-	-	-	-
Inland Waterways	-	-	-	666	42	-	-	379
Pipeline Transport	-	-	-	-	-	-	-	-
Non-specified Transport	-	-	-	-	-	-	-	-
Other Sector	-	-	-	2,083	4	-	-	113
Residential	-	-	-	916	-	-	-	112
Commerce and Public Services	-	-	-	980	-	-	-	627
Agriculture	-	-	-	23	0	-	-	22
Non-specified Others	-	-	-	163	4	-	-	154
<b>Non-energy</b>	<b>-</b>	-	-	<b>117</b>	-	-	-	-

unit: ktoe

Fuel Oil	LPG	Refinery Gas	Ethane	Other Products	Gas	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
-	-	-	-	-	3,159	882	-	8,822	6,473	-	-	23,435
255	376	-	-	165	-	-	-	-	168	-	-	22,074
-193	-0	-	-	-170	-	-	-	-	-	-	-	-2,442
-164	-	-	-	-	-	-	-	-	-	-	-	-181
-	-	-	-	-	-	-	-	-	-	-	-	-1,082
19	2	-	-	5	-	-	-	-	22	-	-	865
-83	378	-	-	-0	3,159	882	-	8,822	6,664	-	-	42,668
-	-	-	-	-	-	-	-	-	-	-	-	-
879	376	-	-	346	-3,015	-882	-	-8,822	-1,708	6,271	-	-15,479
-778	-	-	-	-	-3,015	-882	-	-8,822	-89	6,271	-	-13,808
-	-	-	-	-	-	-	-	-	-	-	-	-
1,657	376	-	-	346	-	-	-	-	-	-	-	-175
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-1,619	-	-	-1,497
-	-	-	-	-	-135	-	-	-	-	-460	-	-596
70	392	-	-	-213	-8	-	-	-	-0	-719	-	-3,092
866	1,146	-	-	133	1	-	-	-	4,956	5,092	-	23,502
547	108	-	-	-	-	-	-	-	1,060	1,726	-	5,845
58	13	-	-	-	-	-	-	-	0	352	-	519
52	6	-	-	-	-	-	-	-	1	105	-	247
102	15	-	-	-	-	-	-	-	1	131	-	1,895
335	73	-	-	-	-	-	-	-	1,058	1,138	-	3,184
185	39	-	-	-	1	-	-	-	-	10	-	8,108
-	-	-	-	-	-	-	-	-	-	-	-	370
-	39	-	-	-	1	-	-	-	-	-	-	7,098
-	-	-	-	-	-	-	-	-	-	10	-	10
185	-	-	-	-	-	-	-	-	-	-	-	630
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
134	1,000	-	-	-	-	-	-	-	3,896	3,356	-	9,416
-	796	-	-	-	-	-	-	-	3,361	1,694	-	5,956
129	204	-	-	-	-	-	-	-	532	1,529	-	3,028
1	-	-	-	-	-	-	-	-	0	117	-	146
3	-	-	-	-	-	-	-	-	3	16	-	286
-	-	-	-	-	133	-	-	-	-	-	-	133
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
330	773	-	-	111	-	-	-	-	149	-	-	20,964
-505	-8	-	-	-285	-	-	-	-	-	-	-	-2,864
-188	-	-	-	-	-	-	-	-	-	-	-	-212
-	-	-	-	-	-	-	-	-	-	-	-	-1,071
-16	21	-	-	1	-	-	-	-	-8	-	-	-141
-379	786	-	-	-174	3,293	812	-	8,558	6,614	-	-	39,756
-	-	-	-	-	-	-	-	-	-	-	-	-
1,292	414	-	-	420	-3,137	-812	-	-8,558	-1,613	5,938	-	-14,891
-615	-	-	-	-	-3,137	-812	-	-8,558	-62	5,938	-	-13,212
-	-	-	-	-	-	-	-	-	-	-	-	-
1,906	414	-	-	420	-	-	-	-	-	-	-	-218
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-1,551	-	-	-1,461
-	-	-	-	-	-158	-	-	-	-	-462	-	-620
99	-37	-	-	-129	3	-	-	-	-0	-651	-	-1,284
1,012	1,164	-	-	117	1	-	-	-	5,001	4,824	-	22,961
616	106	-	-	-	-	-	-	-	1,030	1,663	-	5,849
60	13	-	-	-	-	-	-	-	-	339	-	508
61	8	-	-	-	-	-	-	-	-	101	-	264
119	11	-	-	-	-	-	-	-	-	127	-	1,955
375	73	-	-	-	-	-	-	-	1,030	1,096	-	3,122
245	46	-	-	-	1	-	-	-	-	10	-	7,789
-	-	-	-	-	-	-	-	-	-	-	-	307
-	46	-	-	-	1	-	-	-	-	-	-	6,806
-	-	-	-	-	-	-	-	-	-	10	-	10
245	-	-	-	-	-	-	-	-	-	-	-	666
-	-	-	-	-	-	-	-	-	-	-	-	-
151	1,013	-	-	-	-	-	-	-	3,971	3,152	-	9,206
-	805	-	-	-	-	-	-	-	3,638	1,608	-	6,162
145	208	-	-	-	-	-	-	-	333	1,430	-	2,743
1	-	-	-	-	-	-	-	-	-	101	-	124
4	-	-	-	-	-	-	-	-	-	14	-	177
-	-	-	-	-	117	-	-	-	-	-	-	117

**Major Energy Indicators of Philippines**

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	1990	2000	2005	2008	2009	2010	2011	2012
<b>Total</b>								
Primary Energy Supply	28,309	38,969	37,828	38,577	38,547	39,500	39,756	42,668
Indigenous Production	17,222	19,552	21,404	22,833	23,288	23,194	23,080	23,435
Import	12,555	21,760	18,943	20,180	17,965	21,617	20,964	22,074
Export	-641	-1,753	-1,954	-3,494	-1,802	-3,883	-2,864	-2,442
Final Energy Consumption	19,474	23,502	22,359	22,355	22,856	23,488	22,961	23,502
Industry	4,682	5,352	5,343	6,089	5,756	5,974	5,849	5,845
Transport	4,290	7,695	7,867	7,447	7,962	8,097	7,789	8,108
Residential	9,164	8,172	6,820	6,311	6,280	6,285	6,162	5,956
Commerce & Public Services	841	1,726	1,962	2,055	2,419	2,668	2,743	3,028
Others	497	557	367	453	438	463	418	565
<b>Coal, Coal Products</b>								
Primary Energy Supply	1,358	4,539	5,230	6,225	5,310	7,030	7,726	9,316
Indigenous Production	649	715	1,520	1,905	2,474	3,510	3,632	3,879
Import	709	3,824	3,710	4,791	3,888	5,788	5,786	6,278
Export	-	-	-	-472	-1,052	-2,163	-1,444	-1,675
Transformation Sector	-559	-3,784	-4,134	-4,558	-4,442	-5,090	-5,785	-6,300
Power Generation	-559	-3,784	-4,134	-4,558	-4,442	-5,090	-5,785	-6,300
Final Energy Consumption	696	840	1,184	1,798	1,624	1,933	1,838	1,897
Industry	696	840	1,184	1,798	1,624	1,933	1,838	1,784
Transport	-	-	-	-	-	-	-	-
Residential	-	-	-	-	-	-	-	-
Commerce & Public Services	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	113
<b>Crude Oil</b>								
Primary Energy Supply	10,825	15,121	10,493	8,997	7,905	9,054	9,019	9,033
Indigenous Production	229	55	765	715	962	922	313	220
Import	10,597	15,033	10,301	9,283	6,772	9,095	9,124	8,872
Export	-	-	-738	-653	-257	-862	-329	-141
Transformation Sector	-10,242	-14,721	-9,958	-8,718	-6,827	-8,650	-9,187	-8,280
Petroleum Refineries	-10,242	-14,721	-9,958	-8,718	-6,940	-8,733	-9,277	-8,402
<b>Petroleum Products</b>								
Primary Energy Supply	-220	527	2,984	3,134	5,436	4,528	3,734	4,793
Import	1,249	2,903	4,931	6,097	7,261	6,639	5,905	6,755
Export	-641	-1,753	-1,216	-2,369	-492	-857	-1,091	-626
Transformation Sector	7,939	12,333	8,126	7,509	5,739	7,071	8,263	7,256
Power Generation	-2,135	-1,925	-1,411	-1,083	-1,178	-1,487	-796	-971
Petroleum Refineries	10,074	14,258	9,537	8,591	6,917	8,558	9,059	8,227
Final Energy Consumption	7,833	12,592	11,374	10,733	11,373	11,727	11,296	11,556
Industry	2,225	2,405	1,669	1,539	1,340	1,431	1,318	1,275
Transport	4,290	7,690	7,860	7,437	7,952	8,087	7,778	8,097
Residential	766	1,411	1,000	894	938	930	916	901
Commerce & Public Services	98	554	520	519	826	942	980	967
Others	454	532	325	343	316	336	303	315
<b>Natural Gas</b>								
Primary Energy Supply	-	9	2,724	3,220	3,230	3,055	3,293	3,159
Indigenous Production	-	9	2,724	3,220	3,230	3,055	3,293	3,159
Import	-	-	-	-	-	-	-	-
Export	-	-	-	-	-	-	-	-
Transformation Sector	-	-9	-2,589	-3,031	-3,076	-2,865	-3,137	-3,015
Power Generation	-	-9	-2,589	-3,031	-3,076	-2,865	-3,137	-3,015
Final Energy Consumption	-	-	-	0	0	0	1	1
Industry	-	-	-	-	-	-	-	-
Transport	-	-	-	0	0	0	1	1
Residential	-	-	-	-	-	-	-	-
Commerce & Public Services	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-
<b>Electricity</b>								
Power Generation	2,264	3,895	4,865	5,231	5,325	5,826	5,938	6,271
Thermal	1,079	2,224	3,290	3,457	3,583	4,279	4,202	4,412
Hydro	521	671	721	846	842	671	812	882
Nuclear	-	-	-	-	-	-	-	-
Others	664	1,000	853	928	900	876	925	977
Final Energy Consumption	1,824	3,144	3,884	4,232	4,377	4,753	4,824	5,092
Industry	855	1,135	1,325	1,465	1,469	1,598	1,663	1,726
Transport	-	5	8	10	10	10	10	10
Residential	482	1,109	1,379	1,431	1,508	1,620	1,608	1,694
Commerce & Public Services	444	870	1,130	1,216	1,269	1,398	1,430	1,529
Others	43	25	42	110	121	128	115	133

## Major Economic Indicators of Philippines

	1990	2000	2005	2008	2009	2010	2011	2012
Population (Millions) *1	61.95	77.65	85.82	90.37	91.89	93.44	95.05	96.71
Gross Domestic Product *3								
Real Term (Billions of 2010 Price and 2010 USD)	94.52	125.35	156.87	183.33	185.44	199.59	206.85	220.95
Real Term (Billions of 2010 Price and 2010 PPP)	243.63	323.10	404.36	472.56	477.98	514.46	533.18	569.52
Nominal (Billions of Current USD)	44.31	81.03	103.07	174.20	168.33	199.59	224.10	250.18
GDP per Capita *3								
Real Term (2010 Price and 2010 USD)	1,526	1,614	1,828	2,029	2,018	2,136	2,176	2,285
Real Term (2010 Price and 2010 PPP)	3,933	4,161	4,712	5,229	5,202	5,506	5,609	5,889
Nominal (Current USD)	715	1,043	1,201	1,928	1,832	2,136	2,358	2,587
Nominal GDP & its Components (Billions of Current PHP) *1								
Gross Domestic Product	1,077.24	3,580.71	5,677.75	7,720.90	8,026.14	9,003.48	9,706.27	10,564.89
Household Final Consumption Expenditure, etc.	770.36	2,585.28	4,259.13	5,739.59	5,993.43	6,442.03	7,132.58	7,837.88
General Government Final Consumption Expenditure	108.84	409.05	513.25	681.89	791.40	875.29	941.84	1,112.59
Gross Fixed Capital Formation	248.95	791.34	1,129.94	1,518.17	1,526.10	1,847.75	1,817.19	2,047.96
Stock Change	11.21	-133.65	93.64	-28.96	-194.44	1.63	168.71	-97.43
Exports of Goods and Services	296.42	1,839.39	2,619.54	2,849.94	2,587.01	3,133.51	3,103.02	3,254.46
Imports of Goods and Services	358.55	1,910.69	2,937.76	3,039.74	2,677.36	3,296.73	3,457.06	3,590.56
Real GDP & its Components (Billions of 1985 PHP) *1								
Gross Domestic Product	2,700.07	3,580.71	4,481.28	5,237.10	5,297.24	5,701.54	5,909.00	6,311.67
Household Final Consumption Expenditure, etc.	1,758.27	2,585.28	3,301.79	3,730.86	3,817.91	3,945.83	4,168.91	4,442.52
General Government Final Consumption Expenditure	347.72	409.05	416.87	494.37	548.30	570.21	582.10	653.07
Gross Fixed Capital Formation	609.10	791.34	883.34	1,010.62	992.95	1,182.21	1,159.00	1,280.04
Stock Change	48.57	-133.65	61.68	-25.81	-93.61	1.44	47.76	-111.66
Exports of Goods and Services	870.49	1,839.39	2,212.82	2,588.55	2,385.81	2,886.13	2,805.42	3,054.07
Imports of Goods and Services	934.09	1,910.69	2,395.23	2,561.49	2,354.11	2,884.28	2,854.19	3,006.38
Sectional Shares of Real GDP (%) *1								
Agriculture, Fishery and Forest	15.2	14.0	13.3	12.8	12.5	11.6	11.5	11.1
Industry	35.4	34.5	32.7	32.4	31.5	32.6	32.0	32.0
Services, etc.	49.4	51.6	54.0	54.8	56.0	55.8	56.5	56.9
Manufacturing Production Index (2010=100) *2	22.5	66.2	96.1	98.5	85.5	100.0	102.1	109.3
External Trade (Billions of Current USD) *1								
Exports, f.o.b.	8.117	39.783	41.255	49.078	38.436	51.496	48.305	51.995
Imports, c.i.f.	13.042	37.027	49.487	60.420	45.878	58.468	63.693	65.360
Balance of Payments (Billions of Current USD) *2								
Trade Balance	N.A.	N.A.	-12.146	-18.646	-13.860	-16.859	-20.428	-18.926
Current Account	N.A.	N.A.	1.990	0.144	8.448	7.179	5.643	6.949
Overall Balance	N.A.	N.A.	-0.513	-1.108	7.424	21.042	11.120	13.791
Foreign Exchange Rate (PHP/USD) *1	24.3105	44.1923	55.0855	44.3233	47.6797	45.1097	43.3131	42.2288
Purchasing Power Parity (PHP/International Dollar) *1	6.6946	13.6971	15.4488	16.6636	16.9949	17.5007	17.8537	17.8807
Price Indices								
GDP Deflator (2000=100) *3	39.9	100.0	126.7	147.4	151.5	157.9	164.3	167.4
Wholesale Price Index (2010=100) *2	N.A.	59.6	92.9	106.7	105.2	100.0	100.9	100.4
Consumer Price Index (2010=100) *2	29.3	63.7	78.7	92.4	96.3	100.0	104.6	108.0
Growth Rate (%) *3								
Real GDP	3.04	4.41	4.78	4.15	1.15	7.63	3.64	6.81
Population	2.55	2.15	1.89	1.68	1.68	1.70	1.72	1.74
Price	N.A.	12.5	9.1	4.1	-1.4	-5.0	0.9	-0.5
Wholesale Price Index	12.7	4.0	6.5	8.3	4.2	3.8	4.6	3.2
Consumer Price Index								

Source : \*1 : "World Development Indicators", World Bank

\*2 : "International Financial Statistics", International Monetary Fund

\*3 : Calculated from \*1 and \*2 by the Coordinating Agency

Note : N.A. means "not available"

: PHP means Philippine Peso, USD means United States Dollar

: PPP means Purchasing Power Parity

## Energy Price of Philippines in 2012

### Currency Exchange Rate

	Local currency / US Dollar	42.23
Currency Exchange Rate		PHP

### IMPORT PRICES

	Unit	Amount		Unit	Amount		Unit	Amount
<b>Coal and Coal Products</b>			<b>Coal and Coal Products</b>			<b>Coal and Coal Products</b>		
Coking Coal			Coking Coal			Coking Coal		
Anthracite			Anthracite			Anthracite		
Other bituminous coal			Other bituminous coal			Other bituminous coal		
Sub-bituminous Coal	USD/mt	102.57	Sub-bituminous Coal	USD/mt	51.50	Sub-bituminous Coal		
Lignite			Lignite			Lignite		
Peat			Peat			Peat		
Patent Fuel			Patent Fuel			Patent Fuel		
Coke			Coke			Coke		
Coal Tar			Coal Tar			Coal Tar		
BKB/PB			BKB/PB			BKB/PB		
			Gas Works Gas			Gas Works Gas		
<b>Oil and Oil Products</b>			<b>Oil and Oil Products</b>			<b>Oil and Oil Products</b>		
Crude Oil	USD/bbl	114.11	Crude Oil			Crude Oil		
Natural Gas Liquids			Natural Gas Liquids			Natural Gas Liquids		
Ethane			Ethane			Ethane		
LPG	USD/bbl	90.05	LPG	PHP/Liter	38.12	LPG	PHP/Liter	41.02
Naphtha			Naphtha			Naphtha		
Motor Gasoline	USD/bbl	119.99	Motor Gasoline	PHP/Liter	58.77	Motor Gasoline	PHP/Liter	59.23
Aviation Gasoline	USD/bbl	204.94	Aviation Gasoline			Aviation Gasoline		
Gasoline Type Jet Fuel			Gasoline Type Jet Fuel			Gasoline Type Jet Fuel		
Kerosene Type Jet Fuel	USD/bbl	128.38	Kerosene Type Jet Fuel	PHP/Liter	56.99	Kerosene Type Jet Fuel	PHP/Liter	56.96
Other Kerosene	USD/bbl	126.71	Other Kerosene	PHP/Liter	49.18	Other Kerosene	PHP/Liter	50.42
Gas/Diesel Oil	USD/bbl	127.16	Gas/Diesel Oil	PHP/Liter	47.77	Gas/Diesel Oil	PHP/Liter	49.19
Fuel Oil	USD/bbl	113.44	Fuel Oil	PHP/Liter	40.05	Fuel Oil	PHP/Liter	40.05
White Spirit SPP			White Spirit SBP			White Spirit SBP		
Lubricants			Lubricants			Lubricants		
Bitumen	USD/bbl	111.96	Bitumen			Bitumen		
Paraffin Waxes			Paraffin Waxes			Paraffin Waxes		
Petroleum Coke			Petroleum Coke			Petroleum Coke		
<b>Natural Gas</b>			<b>Natural Gas</b>			<b>Natural Gas</b>		
Natural Gas			Natural Gas	USD/mmbtu	12.10	Natural Gas		
Liquefied Natural Gas			Liquefied Natural Gas			Liquefied Natural Gas		
Compressed Natural Gas			Compressed Natural Gas			Compressed Natural Gas	PHP /Diesel Liter eq.	14.52
<b>Electricity</b>			<b>Electricity</b>			<b>Electricity</b>		
Electricity			Electricity	PHP/MWh	7,037	Industrial	PHP/KWh	7.84
						Commercial	PHP/KWh	9.86
						Residential	PHP/KWh	11.14
						Others	PHP/KWh	10.74
<b>Other Energy Products</b>			<b>Other Energy Products</b>			<b>Other Energy Products</b>		
Charcoal								

### 3.16 Russia

## Energy Balance Table of Russia

	Coal	Coal Products	Crude Oil & NGL	Petroleum Products				
				Total	Gasoline	Naphtha	Jet Fuel	Kerosene
<b>2012</b>								
Indigenous Production	200,719	-	521,255	-	-	-	-	-
Import	17,875	390	840	1,723	230	4	-	256
Export	-83,542	-1,632	-241,151	-105,551	-3,368	-1,072	-	-41,864
International Marine Bunkers	-	-	-	-1,795	-	-	-	-1,299
International Aviation Bunkers	-	-	-	-6,605	-	-	-6,605	-
Stock Changes	-382	-	475	-348	-194	-	-	-112
<b>Total Primary Energy Supply</b>	<b>134,669</b>	<b>-1,242</b>	<b>281,420</b>	<b>-112,576</b>	<b>-3,332</b>	<b>-1,068</b>	<b>-6,605</b>	<b>-43,019</b>
Transfers	-	-	-	-	-	-	-	-
Total Transformation Sector	-111,159	9,716	-276,402	242,174	40,178	20,995	13,210	- 68,642
Main Activity Producer	-52,553	-	-	-7,176	-	-	-	-
Autoproducers	-17,580	-2,822	-796	-8,659	-	-	-	-2,010
Gas Processing	-	-	-	-	-	-	-	-
Petroleum Refineries	-	-	-275,606	258,009	40,178	20,995	13,210	- 70,651
Coal Transformation	-41,026	12,538	-	-	-	-	-	-
Other Transformation	-	-	-	-	-	-	-	-
Loss & Own Use	-652	-991	-4,933	-12,200	-	-	-	-2,096
Discrepancy	-17,094	5	0	-297	-0	-	-	-311
<b>Total Final Energy Consumption</b>	<b>5,763</b>	<b>7,488</b>	<b>85</b>	<b>117,102</b>	<b>36,846</b>	<b>19,927</b>	<b>6,606</b>	<b>- 23,215</b>
Industry Sector	1,594	7,488	33	11,259	-	-	-	2,360
Iron and Steel	-	7,211	-	471	-	-	-	-
Chemical & Petrochemical	108	6	21	6,492	-	-	-	89
Non-metallic Minerals	1,036	130	1	130	-	-	-	93
Other Industries	450	141	11	4,166	-	-	-	2,178
Transport Sector	-	-	-	58,694	36,846	-	6,606	- 14,357
Domestic Air Transport	-	-	-	6,606	-	-	6,606	-
Road	-	-	-	47,662	36,535	-	-	10,745
Rail	-	-	-	1,686	81	-	-	1,559
Inland Waterways	-	-	-	843	4	-	-	596
Pipeline Transport	-	-	-	305	75	-	-	221
Non-specified Transport	-	-	-	1,593	151	-	-	1,236
Other Sector	4,169	-	52	12,351	-	-	-	6,499
Residential	1,547	-	-	6,291	-	-	-	1,526
Commerce and Public Services	2,563	-	-	2,172	-	-	-	1,638
Agriculture	58	-	10	3,078	-	-	-	2,986
Non-specified Others	2	-	42	810	-	-	-	348
Non-energy	-	-	-	34,797	-	19,927	-	-
<b>2011</b>								
Indigenous Production	180,042	-	514,868	-	-	-	-	-
Import	19,094	111	468	4,200	1,065	4	-	809
Export	-78,818	-1,753	-248,815	-102,771	-4,061	-873	-	-40,218
International Marine Bunkers	-	-	-	-2,990	-	-	-	-1,168
International Aviation Bunkers	-	-	-	-6,426	-	-	-6,426	-
Stock Changes	131	-	511	-522	-74	-	-	-250
<b>Total Primary Energy Supply</b>	<b>120,449</b>	<b>-1,642</b>	<b>267,033</b>	<b>-108,510</b>	<b>-3,070</b>	<b>-869</b>	<b>-6,426</b>	<b>-40,827</b>
Transfers	-	-	-	-	-	-	-	-
Total Transformation Sector	-107,015	13,179	-262,078	236,654	38,597	20,352	12,851	- 69,489
Main Activity Producer	-50,851	-	-	-6,994	-	-	-	-
Autoproducers	-16,950	-5,218	-792	-8,836	-	-	-	-2,034
Gas Processing	-	-	-	-	-	-	-	-
Petroleum Refineries	-	-	-261,286	252,484	38,597	20,352	12,851	- 71,523
Coal Transformation	-39,214	18,398	-	-	-	-	-	-
Other Transformation	-	-	-	-	-	-	-	-
Loss & Own Use	-715	-1,517	-4,857	-11,983	-	-	-	-2,171
Discrepancy	-7,075	6	0	-1	-0	-	-	0
<b>Total Final Energy Consumption</b>	<b>5,644</b>	<b>10,025</b>	<b>97</b>	<b>116,160</b>	<b>35,528</b>	<b>19,483</b>	<b>6,425</b>	<b>- 26,491</b>
Industry Sector	1,609	10,024	65	10,119	-	-	-	2,278
Iron and Steel	16	9,246	-	458	-	-	-	-
Chemical & Petrochemical	124	128	18	5,634	-	-	-	86
Non-metallic Minerals	895	520	36	126	-	-	-	76
Other Industries	574	129	11	3,901	-	-	-	2,115
Transport Sector	-	-	-	59,346	35,528	-	6,425	- 16,564
Domestic Air Transport	-	-	-	6,469	44	-	6,425	-
Road	-	-	-	48,169	35,160	-	-	12,628
Rail	-	-	-	2,003	83	-	-	1,866
Inland Waterways	-	-	-	1,194	5	-	-	966
Pipeline Transport	-	-	-	331	80	-	-	236
Non-specified Transport	-	-	-	1,179	156	-	-	868
Other Sector	4,034	1	32	13,050	-	-	-	7,649
Residential	1,550	1	-	5,768	-	-	-	1,506
Commerce and Public Services	2,415	-	-	2,508	-	-	-	1,921
Agriculture	64	-	14	3,978	-	-	-	3,887
Non-specified Others	6	-	18	796	-	-	-	335
Non-energy	-	-	-	33,646	-	19,483	-	-

unit: ktoe

Fuel Oil	LPG	Refinery Gas	Ethane	Other Products	Gas	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
-	-	-	-	-	540,793	14,267	46,290	411	7,699	-	-	1,331,435
181	162	-	-	890	6,606	-	-	-	2	229	-	27,665
-54,534	-2,946	-	-	-1,767	-158,822	-	-	-	-307	-1,646	-	-592,651
-496	-	-	-	-	-	-	-	-	-	-	-	-1,795
-	-	-	-	-	-	-	-	-	-	-	-	-6,605
286	-327	-	-	-	-1,459	-	-	-	39	-	-	-1,675
-54,564	-3,112	-	-	-877	387,119	14,267	46,290	411	7,434	-1,417	-	756,374
-	-	-	-	-	-	-	-	-	-	-	-	-
58,633	16,793	14,268	-	9,456	-243,009	-14,267	-46,290	-411	-4,430	91,961	153,042	-199,075
-7,176	-	-	-	-	-153,018	-14,179	-46,290	-411	-	86,183	58,942	-128,502
-5,915	-33	-701	-	-	-88,318	-88	-	-	-4,430	5,778	94,100	-22,815
-	-	-	-	-	-0	-	-	-	-	-	-	-0
71,724	16,825	14,969	-	9,456	-	-	-	-	-	-	-	-17,597
-	-	-	-	-	-	-	-	-	-	-	-	-28,488
-	-	-	-	-	-1,673	-	-	-	-	-	-	-1,673
-1,810	-56	-8,237	-	-	-16,047	-	-	-	-206	-26,878	-29,305	-91,211
5	-	0	-	9	0	-	-	-	-146	-1	1	-17,532
2,263	13,625	6,031	-	8,589	128,064	-	-	-	2,653	63,665	123,738	448,556
1,060	399	6,031	-	1,409	34,076	-	-	-	404	29,120	47,459	131,434
471	-	-	-	-	13,473	-	-	-	85	4,864	8,615	34,719
54	249	6,031	-	70	3,261	-	-	-	39	4,071	13,685	27,683
31	7	-	-	-	10,624	-	-	-	9	1,525	2,010	15,465
505	143	-	-	1,340	6,719	-	-	-	271	18,660	23,149	53,567
479	408	-	-	-	27,020	-	-	-	-	7,916	-	93,630
-	-	-	-	-	-	-	-	-	-	-	-	6,606
-	382	-	-	-	45	-	-	-	-	-	-	47,707
45	1	-	-	-	-	-	-	-	-	4,103	-	5,789
243	-	-	-	-	-	-	-	-	-	-	-	843
7	3	-	-	-	26,975	-	-	-	-	2,153	-	29,434
184	21	-	-	-	-	-	-	-	-	1,659	-	3,252
724	5,128	-	-	-	35,267	-	-	-	2,248	26,629	76,279	156,995
26	4,739	-	-	-	32,263	-	-	-	1,210	11,369	57,230	109,909
230	303	-	-	-	2,397	-	-	-	887	13,921	13,909	35,848
6	86	-	-	-	606	-	-	-	151	1,314	5,132	10,349
462	-	-	-	-	1	-	-	-	0	25	8	889
-	7,691	-	-	7,179	31,700	-	-	-	-	-	-	66,497
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	552,886	14,263	45,094	449	7,092	-	-	1,314,693
1,104	226	-	-	991	6,553	-	-	-	2	134	-	30,563
-52,722	-2,827	-	-	-2,071	-165,316	-	-	-	-5	-2,074	-	-599,552
-1,822	-	-	-	-	-	-	-	-	-	-	-	-2,990
-	-	-	-	-	-	-	-	-	-	-	-	-6,426
-196	-2	-	-	-	1,868	-	-	-	-0	-	-	1,987
-53,635	-2,603	-	-	-1,080	395,990	14,263	45,094	449	7,089	-1,940	-	738,275
-	-	-	-	-	-	-	-	-	-	-	-	-
57,509	15,530	13,537	-	8,788	-238,607	-14,263	-45,094	-449	-4,494	90,558	152,417	-179,192
-6,994	-	-	-	-	-149,575	-14,167	-45,094	-449	-	85,045	56,440	-125,646
-5,852	-35	-915	-	-	-87,303	-95	-	-	-4,494	5,513	95,977	-22,199
-	-	-	-	-	-	-	-	-	-	-	-	-
70,356	15,565	14,452	-	8,788	-	-	-	-	-	-	-	-8,802
-	-	-	-	-	-	-	-	-	-	-	-	-20,817
-	-	-	-	-	-1,729	-	-	-	-	-	-	-1,729
-1,634	-92	-8,086	-	-	-14,727	-	-	-	-146	-26,091	-28,848	-88,884
0	0	0	-	-1	-4,665	-	-	-	-0	151	-	-11,585
2,240	12,835	5,452	-	7,707	137,991	-	-	-	2,449	62,679	123,569	458,614
971	122	5,452	-	1,296	31,223	-	-	-	354	28,622	46,396	128,413
458	-	-	-	-	12,978	-	-	-	66	4,882	8,559	36,205
38	-	5,450	-	59	2,975	-	-	-	31	3,922	12,796	25,628
38	10	1	-	-	10,176	-	-	-	8	1,495	2,266	15,522
437	112	-	-	1,237	5,094	-	-	-	250	18,324	22,776	51,058
435	394	-	-	-	31,305	-	-	-	-	7,771	-	98,421
-	-	-	-	-	-	-	-	-	-	-	-	6,469
-	381	-	-	-	79	-	-	-	-	-	-	48,248
53	1	-	-	-	-	-	-	-	-	4,136	-	6,139
224	-	-	-	-	-	-	-	-	-	-	-	1,194
8	8	-	-	-	31,226	-	-	-	-	2,225	-	33,783
151	4	-	-	-	-	-	-	-	-	1,409	-	2,588
835	4,566	-	-	-	42,720	-	-	-	2,095	26,286	77,173	165,391
86	4,176	-	-	-	39,703	-	-	-	992	11,256	58,266	117,537
280	307	-	-	-	2,486	-	-	-	943	13,728	13,803	35,883
8	84	-	-	-	526	-	-	-	161	1,277	5,094	11,113
461	-	-	-	-	5	-	-	-	-	24	10	859
-	7,752	-	-	6,411	32,743	-	-	-	-	-	-	66,389

**Major Energy Indicators of Russia**

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	1990	2000	2005	2008	2009	2010	2011	2012
<b>Total</b>								
Primary Energy Supply	878,870	619,039	651,524	688,284	646,712	702,088	738,275	756,374
Indigenous Production	1,292,817	977,791	1,203,101	1,253,774	1,190,458	1,292,886	1,314,693	1,331,435
Import	120,461	32,884	23,182	28,949	24,072	22,889	30,563	27,665
Export	-533,054	-382,460	-562,512	-565,562	-561,776	-602,029	-599,552	-592,651
Final Energy Consumption	625,018	417,876	411,969	434,120	413,964	440,712	458,614	448,556
Industry	208,705	128,577	123,715	124,569	115,620	126,595	128,413	131,434
Transport	115,882	74,483	88,573	97,209	89,622	96,494	98,421	93,630
Residential	83,445	140,255	110,560	113,967	109,423	111,477	117,537	109,909
Commerce & Public Services	36,277	22,640	34,725	40,612	38,019	37,024	35,883	35,848
Others	180,709	51,921	54,396	57,763	61,279	69,122	78,360	77,734
<b>Coal, Coal Products</b>								
Primary Energy Supply	191,071	119,981	112,635	117,070	95,272	114,833	118,807	133,427
Indigenous Production	192,401	128,535	157,426	167,181	153,640	180,041	180,042	200,719
Import	35,088	15,373	13,644	18,839	14,530	15,310	19,205	18,265
Export	-40,423	-25,465	-55,763	-64,341	-68,671	-85,941	-80,571	-85,174
Transformation Sector	-127,294	-97,508	-96,126	-90,085	-82,618	-89,412	-93,836	-101,444
Power Generation	-104,889	-79,891	-76,834	-75,403	-64,426	-70,411	-73,019	-72,955
Final Energy Consumption	54,671	17,952	13,226	15,810	14,022	14,229	15,669	13,251
Industry	14,581	7,994	7,555	9,558	9,468	10,131	11,633	9,081
Transport	0	-	-	-	-	-	-	-
Residential	11,817	8,932	2,824	3,013	1,911	1,548	1,551	1,547
Commerce & Public Services	20,581	387	2,672	3,150	2,547	2,471	2,415	2,563
Others	7,692	638	175	88	96	79	69	59
<b>Crude Oil</b>								
Primary Energy Supply	321,940	183,808	216,841	244,532	243,659	256,927	267,033	281,420
Indigenous Production	526,257	323,259	468,711	488,534	493,645	506,545	514,868	521,255
Import	18,593	5,921	2,438	2,468	1,793	1,105	468	840
Export	-222,909	-145,136	-253,850	-244,313	-250,143	-248,268	-248,815	-241,151
Transformation Sector	-308,936	-181,770	-213,894	-240,162	-241,004	-251,967	-262,078	-276,402
Petroleum Refineries	-307,422	-180,704	-213,129	-239,431	-240,252	-251,180	-261,286	-275,606
<b>Petroleum Products</b>								
Primary Energy Supply	-58,155	-57,695	-87,643	-101,404	-105,736	-117,847	-108,510	-112,576
Import	7,330	307	27	980	808	2,833	4,200	1,723
Export	-64,274	-53,302	-83,539	-97,293	-101,137	-112,000	-102,771	-105,551
Transformation Sector	209,141	157,737	192,119	220,895	219,400	233,789	236,654	242,174
Power Generation	-60,580	-22,171	-16,005	-11,856	-12,038	-10,327	-15,831	-15,835
Petroleum Refineries	269,720	179,908	208,856	233,410	231,611	244,116	252,484	258,009
Final Energy Consumption	144,780	89,720	91,826	105,955	101,525	103,667	116,160	117,102
Industry	24,456	16,957	10,265	13,039	10,831	11,039	10,119	11,259
Transport	72,882	42,294	47,557	54,627	55,022	56,302	59,346	58,694
Residential	8,771	4,355	6,331	7,588	4,484	4,718	5,768	6,291
Commerce & Public Services	421	988	844	2,094	1,599	1,663	2,508	2,172
Others	38,250	25,126	26,829	28,606	29,589	29,944	38,420	38,686
<b>Natural Gas</b>								
Primary Energy Supply	367,392	319,008	349,669	366,277	350,395	383,545	395,990	387,119
Indigenous Production	516,822	470,739	515,842	534,798	478,731	540,157	552,886	540,793
Import	56,438	10,526	6,201	6,394	6,677	3,498	6,553	6,606
Export	-201,719	-156,592	-167,423	-157,831	-140,283	-154,175	-165,316	-158,822
Transformation Sector	-227,749	-189,417	-205,837	-213,702	-205,620	-222,989	-238,607	-243,009
Power Generation	-227,749	-186,415	-203,783	-212,150	-204,229	-221,312	-236,878	-241,336
Final Energy Consumption	143,124	117,173	128,054	133,977	128,541	143,228	137,991	128,064
Industry	30,495	25,843	30,118	30,137	29,406	32,364	31,223	34,076
Transport	34,054	26,939	33,844	35,418	27,616	32,857	31,305	27,020
Residential	47,135	43,124	38,144	39,911	41,682	40,442	39,703	32,263
Commerce & Public Services	8,782	2,456	3,559	3,919	2,652	3,021	2,486	2,397
Others	22,658	18,812	22,388	24,592	27,186	34,542	33,273	32,307
<b>Electricity</b>								
Power Generation	93,065	75,376	81,800	89,305	85,144	89,106	90,558	91,961
Thermal	64,519	46,132	49,870	57,102	51,976	55,476	56,725	57,792
Hydro	14,269	14,111	14,850	14,170	14,980	14,318	14,263	14,267
Nuclear	10,287	11,363	12,989	14,174	14,217	14,811	15,031	15,430
Others	3,990	3,771	4,091	3,859	3,971	4,501	4,540	4,471
Final Energy Consumption	71,090	52,333	55,898	62,390	59,016	62,495	62,679	63,665
Industry	41,428	26,867	28,369	30,967	26,782	28,109	28,622	29,120
Transport	8,924	5,239	7,153	7,146	6,984	7,334	7,771	7,916
Residential	9,197	12,102	9,367	10,074	10,647	11,154	11,256	11,369
Commerce & Public Services	5,752	5,527	9,541	12,844	13,281	14,524	13,728	13,921
Others	5,789	2,598	1,468	1,358	1,322	1,373	1,301	1,339

### Major Economic Indicators of Russia

	1990	2000	2005	2008	2009	2010	2011	2012
Population (Millions) *1	148.29	146.60	143.11	141.96	141.91	142.39	142.96	143.18
Gross Domestic Product *3								
Real Term (Billions of 2010 Price and 2010 USD)	1,413.90	951.56	1,281.33	1,583.01	1,459.20	1,524.92	1,589.94	1,644.56
Real Term (Billions of 2010 Price and 2010 PPP)	2,711.86	1,825.10	2,457.59	3,036.22	2,798.74	2,924.79	3,049.51	3,154.27
Nominal (Billions of Current USD)	N.A.	259.72	764.02	1,660.85	1,222.65	1,524.92	1,904.79	2,017.47
GDP per Capita *3								
Real Term (2010 Price and 2010 USD)	9,535	6,491	8,953	11,151	10,283	10,710	11,122	11,486
Real Term (2010 Price and 2010 PPP)	18,287	12,450	17,172	21,388	19,722	20,541	21,332	22,030
Nominal (Current USD)	N.A.	1,772	5,339	11,700	8,616	10,710	13,324	14,091
Nominal GDP & its Components (Billions of Current RUR) *1								
Gross Domestic Product	0.64	7,305.60	21,609.77	41,276.80	38,807.20	46,308.50	55,967.20	62,218.40
Household Final Consumption Expenditure, etc.	0.31	3,374.30	10,666.17	19,578.20	20,508.00	23,424.80	27,105.40	30,540.80
General Government Final Consumption Expenditure	0.13	1,102.50	3,645.90	7,359.90	8,066.70	8,671.30	10,102.80	11,888.70
Gross Fixed Capital Formation	0.18	1,232.00	3,836.90	9,200.80	8,535.70	10,014.40	11,950.30	13,604.60
Stock Change	0.01	133.70	501.80	1,325.30	-1,190.90	458.30	2,032.20	1,619.30
Exports of Goods and Services	0.12	3,218.90	7,607.30	12,923.60	10,842.00	13,529.30	16,940.90	18,413.10
Imports of Goods and Services	0.12	1,755.80	4,648.30	9,111.00	7,954.30	9,789.60	12,164.40	13,848.10
Real GDP & its Components (Billions of 2000 RUR) *1								
Gross Domestic Product	10,855.15	7,305.60	9,837.35	12,153.52	11,202.93	11,707.48	12,206.71	12,626.08
Household Final Consumption Expenditure, etc.	3,226.95	3,374.30	5,535.67	8,789.37	7,381.46	8,211.95	9,382.17	10,273.55
General Government Final Consumption Expenditure	1,466.92	1,102.50	1,189.60	1,292.31	1,284.34	1,265.24	1,282.97	1,341.86
Gross Fixed Capital Formation	6,142.42	1,232.00	1,979.71	3,126.26	2,676.56	2,833.67	3,090.41	3,289.63
Stock Change	771.03	133.70	200.19	332.63	-636.01	-210.71	N.A.	N.A.
Exports of Goods and Services	3,926.52	3,218.90	4,959.99	5,691.30	5,421.74	5,803.82	5,822.00	5,901.19
Imports of Goods and Services	4,678.68	1,755.80	4,027.82	7,078.35	4,925.17	6,196.49	7,453.52	8,110.00
Sectional Shares of Real GDP (%) *1								
Agriculture, Fishery and Forest	5.5	5.8	4.9	4.4	4.8	4.1	4.4	4.1
Industry	42.6	33.9	34.4	30.9	29.9	30.6	30.9	30.5
Services, etc.	49.9	49.7	49.2	53.0	54.5	54.2	53.2	53.9
Industrial Production Index (2000=100)	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
External Trade (Billions of Current USD) *1								
Exports, f.o.b.	N.A.	105.565	243.798	471.606	303.388	400.630	522.011	529.255
Imports, c.i.f.	N.A.	44.659	125.434	291.861	191.803	248.634	323.831	335.446
Balance of Payments (Billions of Current USD) *2								
Trade Balance	N.A.	N.A.	116.185	177.625	113.231	146.995	196.854	191.663
Current Account	N.A.	N.A.	84.389	103.935	50.384	67.452	97.274	71.282
Overall Balance	N.A.	N.A.	69.954	-35.874	9.755	45.885	21.289	40.390
Foreign Exchange Rate (RUR/USD) *1	N.A.	28.1292	28.2844	24.8529	31.7404	30.3679	29.3823	30.8398
Purchasing Power Parity (RUR/International Dollar) *1	0.0005	7.3020	12.7361	14.3412	14.0338	15.8331	17.3456	18.4885
Price Indices								
GDP Deflator (2000=100) *3	0.0	100.0	219.7	339.6	346.4	395.5	458.5	492.8
Producer Price Index (2005=100) *3	N.A.	44.3	100.0	155.7	144.5	162.2	190.9	203.8
Consumer Price Index (2010=100) *3	N.A.	30.8	61.4	83.8	93.6	100.0	108.4	113.9
Growth Rate (%)								
Real GDP (*3)	-3.00	10.00	6.38	5.25	-7.82	4.50	4.26	3.44
Population (*3)	0.39	-0.42	-0.49	-0.11	-0.03	0.34	0.40	0.15
Price (*2)								
Producer Price Index	N.A.	46.5	20.6	21.4	-7.2	12.2	17.7	6.8
Consumer Price Index	N.A.	20.8	12.7	14.1	11.7	6.9	8.4	5.1

Source : \*1 : "World Development Indicators", World Bank

\*2 : "International Financial Statistics", International Monetary Fund

\*3 : Calculated from \*1 and \*2 by the Coordinating Agency

Note : N.A. means "not available"

: RUR means Russian Ruble, USD means United States Dollar

: PPP means Purchasing Power Parity

## Energy Price of Russian Federation in 2012

### Currency Exchange Rate

Currency Exchange Rate	Local currency / US Dollar	
Local Currency Unit	RUB	

### IMPORT PRICES <sup>1)</sup>

### WHOLESALE PRICES <sup>2)</sup>

### CONSUMER PRICES

	Unit	Amount		Unit	Amount		Unit	Amount
<b>Coal and Coal Products</b>								
Coking Coal	USD/ton	186	Coking Coal	RUB/ton	4,523	Coking Coal		
Anthracite	USD/ton	89	Anthracite			Anthracite		
Other bituminous coal	USD/ton	191	Other bituminous coal			Other bituminous coal		
Sub-bituminous Coal			Sub-bituminous Coal			Sub-bituminous Coal		
Lignite	USD/ton	24	Lignite	RUB/ton	915	Lignite		
Peat	USD/ton	304	Peat			Peat		
Patent Fuel			Patent Fuel			Patent Fuel <sup>3)</sup>	RUB/ton	2,177
Coke	USD/ton	321	Coke			Coke		
Coal Tar	USD/ton	1,589	Coal Tar			Coal Tar		
BKB/PB	USD/ton	4,886	BKB/PB			BKB/PB		
			Gas Works Gas			Gas Works Gas		
<b>Oil and Oil Products</b>								
Crude Oil	USD/ton	206	Crude Oil	RUB/ton	12,797	Crude Oil		
Natural Gas Liquids	USD/ton	206	Natural Gas Liquids			Natural Gas Liquids		
Ethane	USD/ton	1,272	Ethane			Ethane		
LPG	USD/ton	951	LPG	RUB/ton	29,752	LPG		
Naphtha			Naphtha			Naphtha		
Motor Gasoline	USD/ton	919	Motor Gasoline	RUB/ton	34,523	Motor Gasoline <sup>4)</sup>	RUB/litre	30.69
Aviation Gasoline	USD/ton	2,225	Aviation Gasoline			Aviation Gasoline		
Gasoline Type Jet Fuel			Gasoline Type Jet Fuel			Gasoline Type Jet Fuel		
Kerosene Type Jet Fuel	USD/ton	866	Kerosene Type Jet Fuel	RUB/ton	30,517	Kerosene Type Jet Fuel		
Other Kerosene	USD/ton	1,956	Other Kerosene			Other Kerosene		
Gas/Diesel Oil	USD/ton	1,035	Gas/Diesel Oil	RUB/ton	34,075	Gas/Diesel Oil		
Fuel Oil	USD/ton	693	Fuel Oil	RUB/ton	12,716	Fuel Oil		
White Spirit SBP	USD/ton	1,685	White Spirit SBP			White Spirit SBP		
Lubricants	USD/ton	2,665	Lubricants	RUB/ton	50,014	Lubricants		
Bitumen	USD/ton	511	Bitumen	RUB/ton	12,850	Bitumen		
Paraffin Waxes	USD/ton	2,481	Paraffin Waxes			Paraffin Waxes		
Petroleum Coke	USD/ton	345	Petroleum Coke			Petroleum Coke		
<b>Natural Gas</b>								
Natural Gas	USD/Mm3	27,940	Natural Gas	RUB/1000m3	4,062	Natural Gas <sup>5)</sup>	RUB/month-person	55.36
Liquefied Natural Gas			Liquefied Natural Gas			Liquefied Natural Gas <sup>5)</sup>	RUB/month-person	210.85
Compressed Natural Gas			Compressed Natural Gas			Compressed Natural Gas	RUB/balloon 50 litre	544.28
<b>Electricity</b>								
Electricity	USD/MWh	29.2	Electricity	RUB/MWh	1,933	Industrial		
						Commercial		
						Residential <sup>6)</sup>	RUB/100 kWh	269.02
						Others	RUB/100 kWh	190.65
<b>Other Energy Products</b>								
Charcoal	USD/ton	1,195						

1) By the data of the RF Federal Customs Service with taking into account the data on merchandise trade of the Republic of Belarus in US Dollars.

2) Acquisition price by the industrial organisations for own use as at the end of the period, in roubles.

3) Coal for population.

4) Grade AV-95 and higher (i.e. octane level - 95 and higher)

5) Tariff for population.

6) In flats without electric ranges.

### 3.17 Singapore

**Energy Balance Table of Singapore**

	Coal	Coal Products	Crude Oil & NGL	Petroleum Products					Gas/Diesel Oil
				Total	Gasoline	Naphtha	Jet Fuel	Kerosene	
<b>2012</b>									
<b>Indigenous Production</b>	-	-	-	-	-	-	-	-	-
Import	25	0	50,430	97,842	13,981	6,370	1,587	21	14,584
Export	-0	-0	-8	-84,303	-24,283	-466	-5,118	-362	-23,816
<b>International Marine Bunkers</b>	-	-	-	-41,998	-	-	-	-	-
<b>International Aviation Bunkers</b>	-	-	-	-6,847	-	-	-6,847	-	-
<b>Stock Changes</b>	-	-	-	-	-	-	-	-	-
<b>Total Primary Energy Supply</b>	25	0	50,422	-35,306	-10,302	5,904	-10,378	-340	-9,231
<b>Transfers</b>	-	-	-	-	-	-	-	-	-
<b>Total Transformation Sector</b>	-	-	-50,430	42,894	11,378	-	10,378	469	9,701
<b>Main Activity Producer</b>	-	-	-	-1,278	-	-	-	-	-
<b>Autoproducers</b>	-	-	-	-58	-	-	-	-	-58
<b>Gas Processing</b>	-	-	-	-	-	-	-	-	-
<b>Petroleum Refineries</b>	-	-	-50,430	44,230	11,378	-	10,378	469	9,759
<b>Coal Transformation</b>	-	-	-	-	-	-	-	-	-
<b>Other Transformation</b>	-	-	-	-	-	-	-	-	-
<b>Loss &amp; Own Use</b>	-	-	-	-	-	-	-	-	-
<b>Discrepancy</b>	-25	-0	8	-0	-0	-	0	-0	-0
<b>Total Final Energy Consumption</b>	-	-	-	7,588	1,075	5,904	-	129	470
<b>Industry Sector</b>	-	-	-	6,043	-	5,904	-	129	-
<b>Iron and Steel</b>	-	-	-	-	-	-	-	-	-
<b>Chemical &amp; Petrochemical</b>	-	-	-	-	-	-	-	-	-
<b>Non-metallic Minerals</b>	-	-	-	-	-	-	-	-	-
<b>Other Industries</b>	-	-	-	6,043	-	5,904	-	129	-
<b>Transport Sector</b>	-	-	-	1,545	1,075	-	-	-	470
<b>Domestic Air Transport</b>	-	-	-	-	-	-	-	-	-
<b>Road</b>	-	-	-	1,545	1,075	-	-	-	470
<b>Rail</b>	-	-	-	-	-	-	-	-	-
<b>Inland Waterways</b>	-	-	-	-	-	-	-	-	-
<b>Pipeline Transport</b>	-	-	-	-	-	-	-	-	-
<b>Non-specified Transport</b>	-	-	-	-	-	-	-	-	-
<b>Other Sector</b>	-	-	-	-	-	-	-	-	-
<b>Residential</b>	-	-	-	-	-	-	-	-	-
<b>Commerce and Public Services</b>	-	-	-	-	-	-	-	-	-
<b>Agriculture</b>	-	-	-	-	-	-	-	-	-
<b>Non-specified Others</b>	-	-	-	-	-	-	-	-	-
<b>Non-energy</b>	-	-	-	-	-	-	-	-	-
<b>2011</b>									
<b>Indigenous Production</b>	-	-	-	-	-	-	-	-	-
Import	-	-	41,468	103,526	14,195	5,116	1,771	303	16,063
Export	-	-	-20	-83,770	-17,117	-923	-4,909	-1,077	-25,646
<b>International Marine Bunkers</b>	-	-	-	-43,154	-	-	-	-	-
<b>International Aviation Bunkers</b>	-	-	-	-4,188	-	-	-4,188	-	-
<b>Stock Changes</b>	-	-	-	-	-	-	-	-	-
<b>Total Primary Energy Supply</b>	-	-	41,448	-27,586	-2,921	4,194	-7,327	-774	-9,583
<b>Transfers</b>	-	-	-	-	-	-	-	-	-
<b>Total Transformation Sector</b>	-	-	-41,448	41,526	3,976	6,873	7,327	895	10,051
<b>Main Activity Producer</b>	-	-	-	-2,005	-	-	-	-	-53
<b>Autoproducers</b>	-	-	-	-	-	-	-	-	-
<b>Gas Processing</b>	-	-	-	-128	-	-128	-	-	-
<b>Petroleum Refineries</b>	-	-	-41,448	43,659	3,976	7,001	7,327	895	10,104
<b>Coal Transformation</b>	-	-	-	-	-	-	-	-	-
<b>Other Transformation</b>	-	-	-	-	-	-	-	-	-
<b>Loss &amp; Own Use</b>	-	-	-	-980	-	-	-	-	-
<b>Discrepancy</b>	-	-	-	-4,194	-	-4,194	-	-0	-0
<b>Total Final Energy Consumption</b>	-	-	-	8,766	1,055	6,873	-	121	468
<b>Industry Sector</b>	-	-	-	6,994	-	6,873	-	121	-
<b>Iron and Steel</b>	-	-	-	-	-	-	-	-	-
<b>Chemical &amp; Petrochemical</b>	-	-	-	-	-	-	-	-	-
<b>Non-metallic Minerals</b>	-	-	-	-	-	-	-	-	-
<b>Other Industries</b>	-	-	-	6,994	-	6,873	-	121	-
<b>Transport Sector</b>	-	-	-	1,523	1,055	-	-	-	468
<b>Domestic Air Transport</b>	-	-	-	-	-	-	-	-	-
<b>Road</b>	-	-	-	1,523	1,055	-	-	-	468
<b>Rail</b>	-	-	-	-	-	-	-	-	-
<b>Inland Waterways</b>	-	-	-	-	-	-	-	-	-
<b>Pipeline Transport</b>	-	-	-	-	-	-	-	-	-
<b>Non-specified Transport</b>	-	-	-	-	-	-	-	-	-
<b>Other Sector</b>	-	-	-	-	-	-	-	-	-
<b>Residential</b>	-	-	-	-	-	-	-	-	-
<b>Commerce and Public Services</b>	-	-	-	-	-	-	-	-	-
<b>Agriculture</b>	-	-	-	-	-	-	-	-	-
<b>Non-specified Others</b>	-	-	-	-	-	-	-	-	-
<b>Non-energy</b>	-	-	-	250	-	-	-	-	-

Note: Above Energy Balances Tables were estimated by C.A.

unit: ktoe

Fuel Oil	LPG	Refinery Gas	Ethane	Other Products	Gas	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
-	-	-	-	-	-	-	-	-	886	-	-	886
59,444	10	-	-	1,844	9,158	-	-	-	-	-	-	157,455
-22,490	-446	-	-	-7,322	-0	-	-	-	-	-	-	-84,311
-41,998	-	-	-	-	-	-	-	-	-	-	-	-41,998
-	-	-	-	-	-	-	-	-	-	-	-	-6,847
-	-	-	-	-	-	-	-	-	-	-	-	-
-5,043	-437	-	-	-5,478	9,157	-	-	-	886	-	-	25,184
-	-	-	-	-	-	-	-	-	-	-	-	-
5,043	437	-	-	5,488	-7,486	-	-	-	-886	4,035	-	-11,873
-1,278	-	-	-	-	-7,110	-	-	-	-602	3,887	-	-5,104
-	-	-	-	-	-375	-	-	-	-284	148	-	-568
-	-	-	-	-	-1	-	-	-	-	-	-	-1
6,322	437	-	-	5,488	-	-	-	-	-	-	-	-6,200
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
0	-	-	-	-	-0	-415	-	-	-	0	-	-432
-	-	-	-	10	1,256	-	-	-	-	3,661	-	12,505
-	-	-	-	10	1,095	-	-	-	-	1,457	-	8,595
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	10	1,095	-	-	-	-	1,457	-	8,595
-	-	-	-	-	22	-	-	-	-	206	-	1,773
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	1,545
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	22	-	-	-	-	206	-	227
-	-	-	-	-	139	-	-	-	-	1,998	-	2,137
-	-	-	-	-	57	-	-	-	-	571	-	628
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	82	-	-	-	-	1,427	-	1,509
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	120	-	-	120
63,624	2	-	-	2,452	6,605	-	-	-	-	-	-	151,599
-27,035	-103	-	-	-6,961	-	-	-	-	-	-	-	-83,790
-43,154	-	-	-	-	-	-	-	-	-	-	-	-43,154
-	-	-	-	-	-	-	-	-	-	-	-	-4,188
-	-	-	-	-	-	-	-	-	-	-	-	-
-6,565	-101	-	-	-4,509	6,605	-	-	-	120	-	-	20,587
-	-	-	-	-	-	-	-	-	-	-	-	-
6,565	101	980	-	4,759	-6,492	-	-	-	-120	3,956	-	-2,578
-1,952	-	-	-	-	-6,605	-	-	-	-120	3,956	-	-4,774
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	113	-	-	-	-	-	-	-15
8,517	101	980	-	4,759	-	-	-	-	-	-	-	2,211
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-362	-	-1,342
-	-	-	-	-	-0	10	-	-	-	-37	-	-4,221
-	-	-	-	250	123	-	-	-	-	3,556	-	12,446
-	-	-	-	-	74	-	-	-	-	1,410	-	8,478
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	74	-	-	-	-	1,410	-	8,478
-	-	-	-	-	-	-	-	-	-	-	-	1,523
-	-	-	-	-	-	-	-	-	-	-	-	1,523
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	50	-	-	-	-	2,146	-	2,196
-	-	-	-	-	50	-	-	-	-	2,141	-	2,191
-	-	-	-	-	-	-	-	-	-	5	-	5
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	250	-	-	-	-	-	-	-	250

**Major Energy Indicators of Singapore**

ktoe

	1990	2000	2005	2008	2009	2010	2011	2012
<b>Total</b>								
Primary Energy Supply	9,896	17,236	18,684	20,681	22,629	22,118	20,587	25,184
Indigenous Production	19	96	67	76	76	86	120	886
Import	59,503	79,888	106,695	129,336	136,721	144,433	151,599	157,455
Export	-36,556	-39,544	-55,884	-69,608	-73,592	-77,360	-83,790	-84,311
Final Energy Consumption	5,322	6,397	11,267	12,175	12,046	12,368	12,446	12,505
Industry	1,907	3,514	8,077	8,531	8,215	8,500	8,478	8,595
Transport	2,368	1,190	1,225	1,431	1,475	1,499	1,523	1,773
Residential	-	1,441	1,712	1,959	2,102	2,115	2,191	628
Commerce & Public Services	-	-	-	-	-	-	-	-
Others	1,047	253	253	254	254	254	254	1,509
<b>Coal, Coal Products</b>								
Primary Energy Supply	-	-	-	-	-	-	-	25
Indigenous Production	-	-	-	-	-	-	-	-
Import	-	-	-	-	-	-	-	25
Export	-	-	-	-	-	-	-	-0
Transformation Sector	-	-	-	-	-	-	-	-
Power Generation	-	-	-	-	-	-	-	-
Final Energy Consumption	-	-	-	-	-	-	-	-
Industry	-	-	-	-	-	-	-	-
Transport	-	-	-	-	-	-	-	-
Residential	-	-	-	-	-	-	-	-
Commerce & Public Services	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-
<b>Crude Oil</b>								
Primary Energy Supply	41,286	41,585	54,572	50,201	44,091	41,172	41,448	50,422
Indigenous Production	-	-	-	-	-	-	-	-
Import	41,286	41,585	54,738	50,271	44,136	41,211	41,468	50,430
Export	-0	-	-165	-70	-45	-39	-20	-8
Transformation Sector	-	-41,585	-54,572	-50,201	-44,091	-41,172	-41,448	-50,430
Petroleum Refineries	-43,571	-41,585	-54,572	-50,201	-44,091	-41,172	-41,448	-50,430
<b>Petroleum Products</b>								
Primary Energy Supply	-31,409	-25,524	-41,273	-35,902	-27,856	-25,712	-27,586	-35,306
Import	18,217	37,225	46,639	72,760	86,267	96,649	103,526	97,842
Export	-36,555	-39,544	-55,718	-69,538	-73,547	-77,321	-83,770	-84,303
Transformation Sector	-	30,051	50,481	45,731	37,487	40,144	41,526	42,894
Power Generation	-3,388	-5,688	-1,968	-1,515	-1,518	-1,994	-2,005	-1,336
Petroleum Refineries	39,530	35,868	52,577	47,374	39,133	42,266	43,659	44,230
Final Energy Consumption	4,046	3,787	8,200	8,833	8,703	8,742	8,766	7,588
Industry	1,296	2,372	6,725	7,152	6,978	6,994	6,994	6,043
Transport	2,352	1,165	1,225	1,431	1,475	1,499	1,523	1,545
Residential	-	-	-	-	-	-	-	-
Commerce & Public Services	-	-	-	-	-	-	-	-
Others	399	250	250	250	250	250	250	-
<b>Natural Gas</b>								
Primary Energy Supply	-	1,078	5,318	6,305	6,318	6,573	6,605	9,157
Indigenous Production	-	-	-	-	-	-	-	-
Import	-	1,078	5,318	6,305	6,318	6,573	6,605	9,158
Export	-	-	-	-	-	-	-	-0
Transformation Sector	-	-836	-5,212	-6,193	-6,205	-6,460	-6,492	-7,486
Power Generation	-	-942	-5,318	-6,305	-6,318	-6,573	-6,605	-7,485
Final Energy Consumption	55	105	106	113	113	119	123	1,256
Industry	32	66	61	48	64	70	74	1,095
Transport	-	-	-	-	-	-	-	22
Residential	-	39	45	64	49	49	50	57
Commerce & Public Services	-	-	-	-	-	-	-	-
Others	23	-	-	-	-	-	-	82
<b>Electricity</b>								
Power Generation	1,343	2,723	3,286	3,588	3,595	3,902	3,956	4,035
Thermal	1,324	2,627	3,220	3,512	3,519	3,816	3,836	3,149
Hydro	-	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-	-
Others	19	96	67	76	76	86	120	886
Final Energy Consumption	1,221	2,505	2,960	3,230	3,230	3,507	3,556	3,661
Industry	580	1,076	1,290	1,332	1,172	1,436	1,410	1,457
Transport	16	25	-	-	-	-	-	206
Residential	-	1,401	1,666	1,894	2,053	2,067	2,141	571
Commerce & Public Services	-	-	-	-	-	-	-	-
Others	625	3	4	4	4	4	5	1,427

### Major Economic Indicators of Singapore

	1990	2000	2005	2008	2009	2010	2011	2012
Population (Millions) *1	3.05	4.03	4.27	4.84	4.99	5.08	5.18	5.31
Gross Domestic Product *3								
Real Term (Billions of 2010 Price and 2010 USD)	67.58	134.49	170.72	206.40	205.15	236.42	250.74	257.02
Real Term (Billions of 2010 Price and 2010 PPP)	102.21	203.41	258.19	312.16	310.28	357.57	379.22	388.72
Nominal (Billions of Current USD)	38.90	95.84	127.42	192.23	192.41	236.42	274.07	286.91
GDP per Capita *3								
Real Term (2010 Price and 2010 USD)	22,179	33,390	40,020	42,650	41,133	46,570	48,371	48,381
Real Term (2010 Price and 2010 PPP)	33,543	50,499	60,527	64,505	62,210	70,433	73,157	73,172
Nominal (Current USD)	12,766	23,793	29,870	39,722	38,577	46,570	52,871	54,007
Nominal GDP & its Components (Billions of Current SGD) *1								
Gross Domestic Product	70.51	165.22	212.07	271.98	279.86	322.36	344.71	358.54
Household Final Consumption Expenditure, etc.	31.59	69.52	81.91	103.71	107.79	114.52	126.07	135.59
General Government Final Consumption Expenditure	6.70	17.73	21.60	28.69	28.79	32.84	33.56	33.63
Gross Fixed Capital Formation	22.36	52.94	48.94	77.07	81.92	84.22	87.83	96.33
Stock Change	2.77	4.72	-3.62	5.71	-4.49	5.62	6.23	12.57
Exports of Goods and Services	124.91	312.56	479.46	626.29	536.99	642.33	690.07	699.43
Imports of Goods and Services	117.82	292.25	416.20	569.49	471.14	557.17	599.04	619.01
Real GDP & its Components (Billions of 1995 SGD) *1								
Gross Domestic Product	92.15	183.38	232.77	281.43	279.73	322.36	341.89	350.45
Household Final Consumption Expenditure, etc.	44.34	79.64	98.43	115.19	110.24	114.52	118.88	121.59
General Government Final Consumption Expenditure	8.23	20.62	24.27	28.47	29.65	32.84	32.47	32.45
Gross Fixed Capital Formation	24.16	57.11	53.48	75.33	78.11	84.22	87.83	95.63
Stock Change	6.26	5.33	-4.63	6.13	-5.87	5.62	5.90	12.08
Exports of Goods and Services	104.65	295.24	468.26	591.43	547.11	642.33	671.63	681.59
Imports of Goods and Services	95.49	274.57	407.04	535.11	479.52	557.17	574.82	592.90
Sectional Shares of Real GDP (%) *1								
Agriculture, Fishery and Forest	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Industry	25.6	26.9	24.4	24.0	24.3	26.1	26.3	26.1
Services, etc.	66.6	66.3	69.2	70.1	69.8	68.3	68.5	68.7
Manufacturing Production Index (2010=100) *2	27.5	57.7	70.9	80.4	77.1	100.0	107.6	107.9
External Trade (Billions of Current USD) *1								
Exports, f.o.b.	52.730	137.804	229.649	338.176	269.832	351.867	409.503	408.393
Imports, c.i.f.	60.774	134.545	200.047	319.780	245.785	310.791	365.770	379.723
Balance of Payments (Billions of Current USD) *2								
Trade Balance	N.A.	N.A.	47.744	41.648	47.580	62.840	69.545	63.416
Current Account	N.A.	N.A.	27.868	27.742	32.360	55.943	62.594	50.150
Overall Balance	N.A.	N.A.	11.990	13.124	11.187	37.666	16.383	27.026
Foreign Exchange Rate (SGD/USD) *1	1.8125	1.7240	1.6644	1.4149	1.4545	1.3635	1.2578	1.2497
Purchasing Power Parity (SGD/International Dollar) *1	1.0445	1.0039	0.9037	0.8886	0.9129	0.9015	0.8915	0.8891
Price Indices								
GDP Deflator (2010=100) *3	76.5	90.1	91.1	96.6	100.0	100.0	100.8	102.3
Wholesale Price Index (2010=100) *2	91.2	85.9	97.9	110.9	95.5	100.0	108.4	109.0
Consumer Price Index (2010=100) *2	71.9	85.3	88.0	96.7	97.3	100.0	105.3	110.0
Growth Rate (%) *3								
Real GDP	10.04	8.90	7.49	1.79	-0.60	15.24	6.06	2.50
Population	3.96	1.75	2.38	5.47	3.06	1.79	2.11	2.48
Price								
Wholesale Price Index	1.7	10.1	9.7	7.5	-13.9	4.7	8.4	0.5
Consumer Price Index	3.5	1.4	0.4	6.5	0.6	2.8	5.3	4.5

Source : \*1 : "World Development Indicators", World Bank

\*2 : "International Financial Statistics", International Monetary Fund

\*3 : Calculated from \*1 and \*2 by the Coordinating Agency

Note :

N.A. means "not available"

SGD means Singapore Dollar, USD means United States Dollar

PPP means Purchasing Power Parity

3.18 Chinese Taipei

## Energy Balance Table of Chinese Taipei

	Coal	Coal Products	Crude Oil & NGL	Petroleum Products				
				Total	Gasoline	Naphtha	Jet Fuel	Kerosene
<b>2012</b>								
Indigenous Production	-	-	10	-	-	-	-	-
Import	35,642	156	46,603	14,469	-	10,613	-	-
Export	-	-76	-	-16,366	-3,366	-34	-1,319	-9,346
International Marine Bunkers	-	-	-	-1,182	-	-	-	-124
International Aviation Bunkers	-	-	-	-2,075	-	-	-2,075	-
Stock Changes	350	-	461	-181	-46	46	-	-1 -129
<b>Total Primary Energy Supply</b>	<b>35,993</b>	<b>81</b>	<b>47,074</b>	<b>-5,335</b>	<b>-3,412</b>	<b>10,626</b>	<b>-3,394</b>	<b>-1 -9,599</b>
Transfers	-	-	-	-901	-61	1,445	-23	-60
<b>Total Transformation Sector</b>	<b>-30,113</b>	<b>2,380</b>	<b>-47,354</b>	<b>45,254</b>	<b>11,029</b>	<b>4,282</b>	<b>3,867</b>	<b>- 14,030</b>
Main Activity Producer	-19,816	-	-	-1,380	-	-	-	-45
Autoproducers	-5,091	-672	-	-843	-	-	-	-
Gas Processing	-	-	-	-	-	-	-	-
Petroleum Refineries	-	-	-47,354	47,476	11,029	4,282	3,867	- 14,074
Coal Transformation	-5,206	3,052	-	-	-	-	-	-
Other Transformation	-	-	-	-	-	-	-	-
Loss & Own Use	-	-945	-	-1,642	-2	-	-	-0 -25
Discrepancy	-577	104	280	-175	74	36	-240	4 156
<b>Total Final Energy Consumption</b>	<b>5,302</b>	<b>1,619</b>	<b>-</b>	<b>37,200</b>	<b>7,629</b>	<b>16,389</b>	<b>211</b>	<b>3 4,622</b>
<b>Industry Sector</b>	<b>5,302</b>	<b>1,619</b>	<b>-</b>	<b>2,856</b>	<b>6</b>	<b>-</b>	<b>-</b>	<b>0 120</b>
Iron and Steel	190	1,322	-	311	0	-	-	-6
Chemical & Petrochemical	3,228	160	-	1,083	0	-	-	68
Non-metallic Minerals	1,420	-	-	288	0	-	-	15
Other Industries	464	137	-	1,174	6	-	-	0 31
<b>Transport Sector</b>	-	-	-	11,683	7,588	-	86	- 3,863
Domestic Air Transport	-	-	-	86	-	-	86	-
Road	-	-	-	11,415	7,588	-	-	3,743
Rail	-	-	-	27	-	-	-	27
Inland Waterways	-	-	-	154	-	-	-	93
Pipeline Transport	-	-	-	-	-	-	-	-
Non-specified Transport	-	-	-	-	-	-	-	-
<b>Other Sector</b>	-	-	-	2,403	35	-	125	3 639
Residential	-	-	-	1,137	-	-	-	-
Commerce and Public Services	-	-	-	927	35	-	125	3 329
Agriculture	-	-	-	3	0	-	-	0
Non-specified Others	-	-	-	336	-	-	-	310
<b>Non-energy</b>	-	-	-	20,259	-	16,389	-	-
<b>2011</b>								
Indigenous Production	-	-	10	-	-	-	-	-
Import	37,012	69	41,908	15,869	60	10,992	40	-
Export	-	-66	-	-13,360	-2,797	-0	-1,120	-7,679
International Marine Bunkers	-	-	-	-1,629	-	-	-	-137
International Aviation Bunkers	-	-	-	-1,974	-	-	-1,974	-
Stock Changes	-22	-	730	36	119	-38	-	1 -61
<b>Total Primary Energy Supply</b>	<b>36,990</b>	<b>2</b>	<b>42,648</b>	<b>-1,057</b>	<b>-2,618</b>	<b>10,954</b>	<b>-3,054</b>	<b>1 -7,877</b>
Transfers	-	-	-	-949	-60	1,209	-47	-0 -120
<b>Total Transformation Sector</b>	<b>-30,577</b>	<b>2,454</b>	<b>-42,627</b>	<b>40,474</b>	<b>10,352</b>	<b>3,204</b>	<b>3,377</b>	<b>- 12,488</b>
Main Activity Producer	-19,800	-	-	-1,753	-	-	-	-48
Autoproducers	-5,383	-757	-	-801	-	-	-	-
Gas Processing	-	-	-	-	-	-	-	-
Petroleum Refineries	-	-	-42,627	43,028	10,352	3,204	3,377	- 12,536
Coal Transformation	-5,394	3,211	-	-	-	-	-	-
Other Transformation	-	-	-	-	-	-	-	-
Loss & Own Use	-	-1,009	-	-1,603	-2	-	-	-0 -27
Discrepancy	-1,007	90	-21	360	54	-274	-58	4 194
<b>Total Final Energy Consumption</b>	<b>5,406</b>	<b>1,538</b>	<b>-</b>	<b>37,225</b>	<b>7,725</b>	<b>15,092</b>	<b>218</b>	<b>6 4,657</b>
<b>Industry Sector</b>	<b>5,406</b>	<b>1,538</b>	<b>-</b>	<b>3,413</b>	<b>18</b>	<b>-</b>	<b>-</b>	<b>0 128</b>
Iron and Steel	254	1,303	-	381	0	-	-	-6
Chemical & Petrochemical	3,269	184	-	1,352	0	-	-	68
Non-metallic Minerals	1,450	-	-	334	0	-	-	18
Other Industries	435	50	-	1,345	17	-	-	0 35
<b>Transport Sector</b>	-	-	-	11,921	7,673	-	86	- 3,916
Domestic Air Transport	-	-	-	86	-	-	86	-
Road	-	-	-	11,555	7,673	-	-	3,797
Rail	-	-	-	27	-	-	-	27
Inland Waterways	-	-	-	253	-	-	-	93
Pipeline Transport	-	-	-	-	-	-	-	-
Non-specified Transport	-	-	-	-	-	-	-	-
<b>Other Sector</b>	-	-	-	2,447	34	-	132	6 613
Residential	-	-	-	1,168	-	-	-	-
Commerce and Public Services	-	-	-	975	34	-	132	6 334
Agriculture	-	-	-	4	0	-	-	0 0
Non-specified Others	-	-	-	300	-	-	-	279
<b>Non-energy</b>	-	-	-	19,443	-	15,092	-	-

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Fuel Oil	LPG	Refinery Gas	Ethane	Other Products	Gas	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
-	-	-	-	-	354	740	10,544	230	1,731	-	-	13,610
1,040	894	-	-	1,923	15,935	-	-	-	-	-	-	112,807
-1,333	-110	-	-	-859	-	-	-	-	-	-	-	-16,442
-1,058	-	-	-	-0	-	-	-	-	-	-	-	-1,182
-	-	-	-	-	-	-	-	-	-	-	-	-2,075
-38	-13	-	-	-	108	-	-	-	-	-	-	739
-1,389	771	-	-	1,063	16,397	740	10,544	230	1,731	-	-	107,457
-2,279	116	-	-	-161	-	-	-	-	-	-	-	-901
7,131	1,511	1,258	-	2,146	-12,258	-740	-10,544	-127	-1,626	21,534	-	-33,596
-1,335	-	-	-	-	-11,542	-740	-10,544	-122	-	18,516	-	-25,629
-440	-	-14	-	-389	-81	-	-	-5	-1,626	3,018	-	-5,300
-	-	-	-	-	-635	-	-	-	-	-	-	-635
8,906	1,511	1,271	-	2,535	-	-	-	-	-	-	-	122
-	-	-	-	-	-	-	-	-	-	-	-	-2,155
-	-	-	-	-	-	-	-	-	-	-	-	-
-269	-89	-1,258	-	-	-712	-	-	-	-	-1,760	-	-5,059
-318	-31	-0	-	143	-766	0	-	-0	-105	-636	-	-1,877
2,876	2,278	-	-	3,192	2,661	-	-	103	-	19,138	-	66,023
2,420	298	-	-	12	1,441	-	-	-	-	11,043	-	22,262
282	10	-	-	12	272	-	-	-	-	1,296	-	3,391
860	155	-	-	-	334	-	-	-	-	3,218	-	8,024
265	8	-	-	-	195	-	-	-	-	476	-	2,378
1,013	124	-	-	-	641	-	-	-	-	6,053	-	8,469
61	84	-	-	-	-	-	-	-	-	106	-	11,789
-	-	-	-	-	-	-	-	-	-	-	-	86
-	84	-	-	-	-	-	-	-	-	-	-	11,415
-	-	-	-	-	-	-	-	-	-	106	-	133
61	-	-	-	-	-	-	-	-	-	-	-	154
-	-	-	-	-	-	-	-	-	-	-	-	-
395	1,206	-	-	-	1,220	-	-	103	-	7,989	-	11,714
-	1,137	-	-	-	751	-	-	103	-	3,722	-	5,713
367	69	-	-	-	468	-	-	-	-	4,034	-	5,429
3	0	-	-	-	-	-	-	-	-	154	-	157
25	-	-	-	-	-	-	-	-	-	79	-	415
-	690	-	-	3,180	-	-	-	-	-	-	-	20,259
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	264	594	10,976	237	1,702	-	-	13,782
1,359	1,348	-	-	2,070	15,260	-	-	-	-	-	-	110,117
-925	-37	-	-	-802	-	-	-	-	-	-	-	-13,426
-1,491	-	-	-	-0	-	-	-	-	-	-	-	-1,629
-	-	-	-	-	-	-	-	-	-	-	-	-1,974
57	-42	-	-	-	8	-	-	-	-	-	-	752
-1,000	1,269	-	-	1,268	15,532	594	10,976	237	1,702	-	-	107,622
-1,731	67	-	-	-265	-	-	-	-	-	-	-	-949
6,187	1,315	1,268	-	2,284	-11,959	-594	-10,976	-	-1,702	21,687	-	-33,819
-1,706	-	-	-	-	-11,202	-594	-10,976	-	-	18,472	-	-25,853
-468	-	-15	-	-318	-92	-	-	-	-1,702	3,215	-	-5,520
-	-	-	-	-	-665	-	-	-	-	-	-	-665
8,360	1,315	1,282	-	2,602	-	-	-	-	-	-	-	401
-	-	-	-	-	-	-	-	-	-	-	-	-2,183
-	-	-	-	-	-	-	-	-	-	-	-	-
-259	-47	-1,268	-	-	-702	-	-	-0	-	-1,816	-	-5,129
276	-1	-	-	164	-493	-	-	-135	-	-693	-	-1,898
3,473	2,603	-	-	3,450	2,378	-	-	102	-	19,178	-	65,827
2,890	365	-	-	13	1,218	-	-	-	-	10,989	-	22,564
353	9	-	-	13	240	-	-	-	-	1,345	-	3,523
1,059	225	-	-	-	287	-	-	-	-	3,198	-	8,291
307	9	-	-	-	187	-	-	-	-	490	-	2,460
1,171	121	-	-	-	505	-	-	-	-	5,956	-	8,290
160	85	-	-	-	-	-	-	-	-	103	-	12,025
-	-	-	-	-	-	-	-	-	-	-	-	86
-	85	-	-	-	-	-	-	-	-	-	-	11,555
160	-	-	-	-	-	-	-	-	-	103	-	131
-	-	-	-	-	-	-	-	-	-	-	-	-
422	1,240	-	-	-	1,160	-	-	102	-	8,086	-	11,795
-	1,168	-	-	-	737	-	-	102	-	3,820	-	5,827
398	72	-	-	-	423	-	-	-	-	4,032	-	5,430
3	0	-	-	-	-	-	-	-	-	154	-	158
21	-	-	-	-	-	-	-	-	-	80	-	380
-	913	-	-	3,438	-	-	-	-	-	-	-	19,443

**Major Energy Indicators of Chinese Taipei**

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	1990	2000	2005	2008	2009	2010	2011	2012
<b>Total</b>								
Primary Energy Supply	45,477	78,981	104,593	107,218	104,568	111,523	107,622	107,457
Indigenous Production	10,748	11,476	13,152	13,727	13,801	13,625	13,782	13,610
Import	39,723	78,713	111,997	115,530	111,855	117,600	110,117	112,807
Export	-335	-2,294	-15,590	-17,452	-18,733	-15,841	-13,426	-16,442
Final Energy Consumption	29,302	53,558	62,206	64,332	63,990	68,090	65,827	66,023
Industry	15,667	29,393	23,798	21,209	19,978	22,476	22,564	22,262
Transport	6,735	12,165	12,657	11,521	11,480	11,854	12,025	11,789
Residential	2,904	4,802	6,140	5,837	5,686	5,719	5,827	5,713
Commerce & Public Services	2,259	3,999	4,882	5,451	5,348	5,490	5,430	5,429
Others	1,736	3,199	14,730	20,315	21,499	22,550	19,982	20,830
<b>Coal, Coal Products</b>								
Primary Energy Supply	10,562	27,493	39,183	38,729	36,916	39,186	36,992	36,073
Indigenous Production	278	49	-	-	-	-	-	-
Import	11,389	27,911	39,715	39,513	36,090	39,106	37,081	35,799
Export	-0	-	-	-59	-25	-78	-66	-76
Transformation Sector	-	-	-30,217	-31,132	-30,601	-31,059	-28,123	-27,734
Power Generation	-5,145	-19,428	-28,585	-29,649	-28,817	-28,700	-25,940	-25,579
Final Energy Consumption	5,903	8,391	6,706	6,240	5,926	6,915	6,944	6,921
Industry	5,897	8,339	6,706	6,240	5,926	6,915	6,944	6,921
Transport	-	-	-	-	-	-	-	-
Residential	-	-	-	-	-	-	-	-
Commerce & Public Services	-	-	-	-	-	-	-	-
Others	6	52	-	-	-	-	-	-
<b>Crude Oil</b>								
Primary Energy Supply	20,512	36,188	54,303	47,241	50,008	45,915	42,648	47,074
Indigenous Production	156	32	29	14	14	13	10	10
Import	21,105	36,876	54,576	47,865	49,643	46,059	41,908	46,603
Export	-	-	-	-	-	-	-	-
Transformation Sector	-	-	-54,431	-47,351	-50,159	-46,059	-42,627	-47,354
Petroleum Refineries	-20,512	-36,188	-54,431	-47,351	-50,159	-46,059	-42,627	-47,354
<b>Petroleum Products</b>								
Primary Energy Supply	3,406	-1,093	-12,004	-4,846	-7,143	-1,035	-1,057	-5,335
Import	6,467	8,757	7,864	15,679	15,059	18,569	15,869	14,469
Export	-335	-2,294	-15,590	-17,393	-18,708	-15,763	-13,360	-16,366
Transformation Sector	-	-	50,566	51,042	47,657	44,012	40,474	45,254
Power Generation	-4,825	-6,171	-3,882	-3,609	-2,463	-2,990	-2,555	-2,222
Petroleum Refineries	19,184	39,502	54,448	54,651	50,121	47,002	43,028	47,476
Final Energy Consumption	16,106	29,907	36,692	37,889	38,789	40,170	37,225	37,200
Industry	5,803	12,868	7,319	4,030	3,798	3,869	3,413	2,856
Transport	6,698	12,071	12,542	11,427	11,385	11,754	11,921	11,683
Residential	1,094	1,266	1,304	1,236	1,225	1,186	1,168	1,137
Commerce & Public Services	973	830	1,012	1,105	1,104	1,035	975	927
Others	1,538	2,872	14,516	20,091	21,276	22,325	19,747	20,597
<b>Natural Gas</b>								
Primary Energy Supply	1,728	5,596	10,476	12,700	11,280	14,082	15,532	16,397
Indigenous Production	1,045	598	487	318	281	237	264	354
Import	762	5,169	9,842	12,473	11,062	13,866	15,260	15,935
Export	-	-	-	-	-	-	-	-
Transformation Sector	-	-	-8,113	-10,200	-9,523	-11,539	-11,959	-12,258
Power Generation	-241	-3,393	-7,518	-9,434	-8,100	-10,472	-11,294	-11,623
Final Energy Consumption	926	1,490	1,986	2,036	1,833	2,124	2,378	2,661
Industry	392	682	862	871	820	1,014	1,218	1,441
Transport	-	-	-	-	-	-	-	-
Residential	400	565	844	831	655	695	737	751
Commerce & Public Services	81	162	280	334	358	415	423	468
Others	53	81	-	-	-	-	-	-
<b>Electricity</b>								
Power Generation	7,481	15,897	19,561	20,541	19,753	21,245	21,687	21,534
Thermal	3,922	11,790	13,957	14,342	13,634	15,208	15,733	15,525
Hydro	704	763	680	687	607	624	594	740
Nuclear	2,855	3,345	3,472	3,546	3,611	3,616	3,659	3,515
Others	-	-	1,451	1,965	1,902	1,797	1,702	1,753
Final Energy Consumption	6,367	13,770	16,734	18,069	17,341	18,777	19,178	19,138
Industry	3,575	7,504	8,911	10,068	9,434	10,677	10,989	11,043
Transport	37	94	115	95	95	100	103	106
Residential	1,410	2,971	3,905	3,671	3,704	3,735	3,820	3,722
Commerce & Public Services	1,206	3,008	3,589	4,012	3,886	4,040	4,032	4,034
Others	139	195	214	224	222	225	234	233

**Major Economic Indicators of Chinese Taipei**

	1990	2000	2005	2008	2009	2010	2011	2012
Population (Millions) *1	20.40	22.28	22.77	23.04	23.12	23.16	23.22	23.32
Gross Domestic Product *2								
Real Term (Billions of 2010 Price and 2010 USD)	166.91	305.50	364.55	410.34	402.91	446.26	464.96	471.84
Real Term (Billions of 2010 Price and 2010 PPP)	277.59	508.08	606.28	682.44	670.08	742.19	773.29	784.73
Nominal (Billions of Current USD)	163.42	308.78	357.39	384.06	389.67	446.26	452.59	483.15
GDP per Capita *2								
Real Term (2010 Price and 2010 USD)	8,181	13,714	16,010	17,812	17,427	19,267	20,020	20,237
Real Term (2010 Price and 2010 PPP)	13,606	22,808	26,626	29,623	28,983	32,043	33,296	33,656
Nominal (Current USD)	8,010	13,861	15,695	16,671	16,854	19,267	19,487	20,722
Nominal GDP & its Components (Billions of Current TWD) *1								
Gross Domestic Product	4,430.06	10,187.39	11,740.28	12,620.15	12,481.09	13,552.10	13,709.07	14,077.10
Private Consumption, etc.	2,388.85	5,987.73	7,090.74	7,610.00	7,573.58	7,924.53	8,235.41	8,465.03
General Government Consumption	769.31	1,362.91	1,463.23	1,563.63	1,620.00	1,642.10	1,696.55	1,746.48
Fixed Investment	1,048.75	2,524.44	2,635.45	2,665.93	2,353.58	2,888.20	2,865.97	2,772.39
Stock Change	30.68	91.20	32.40	160.38	145.18	147.03	-6.90	21.69
Exports of Goods & NF Services	2,025.42	5,392.44	7,341.71	9,208.65	7,799.17	10,001.12	10,413.31	10,325.65
Imports of Goods & NF Services	1,832.95	5,171.33	6,823.25	8,588.44	6,720.05	9,050.88	9,495.27	9,254.14
Real GDP & its Components (Billions of 2001 TWD) *1								
Gross Domestic Product	5,316.58	9,731.21	11,612.09	13,070.68	12,834.05	14,215.07	14,810.74	15,029.86
Private Consumption, etc.	3,150.89	6,149.54	7,141.82	7,330.49	7,386.06	7,678.26	7,915.97	8,044.12
General Government Consumption	1,080.76	1,437.46	1,479.82	1,512.36	1,573.01	1,579.96	1,614.29	1,629.86
Fixed Investment	1,371.51	2,812.74	2,728.70	2,406.52	2,135.82	2,586.88	2,526.70	2,425.26
Stock Change	39.53	107.49	34.22	134.44	-133.95	152.06	25.96	11.09
Exports of Goods & NF Services	2,221.05	5,355.03	7,473.09	9,200.04	8,401.71	10,554.66	11,024.97	11,037.51
Imports of Goods & NF Services	2,547.17	6,131.05	7,245.56	7,513.17	6,528.60	8,336.75	8,297.15	8,117.98
Sectional Shares of Real GDP (%) *1								
Agriculture, Fishery and Forest	4.0	2.0	1.7	1.6	1.7	1.6	1.8	1.8
Industry	38.9	30.5	31.3	29.1	28.9	31.0	29.9	29.1
Services, etc.	57.0	67.5	67.1	69.3	69.4	67.4	68.3	69.1
Industrial Production Index (2011=100) *1	35.2	59.2	72.9	81.9	75.5	95.5	100.0	99.7
External Trade (Billions of Current USD) *1								
Exports	67.425	151.950	198.432	255.629	203.675	274.601	308.257	301.181
Imports, c.i.f.	54.786	140.732	182.614	240.448	174.371	251.236	281.438	270.473
Balance of Payments (Billions of Current USD) *1								
Trade Balance	14.807	13.672	12.803	20.325	32.544	29.006	32.200	37.956
Current Account	10.923	8.899	17.578	27.505	42.923	39.872	41.688	50.672
Overall Balance	-3.918	2.477	17.461	27.171	42.827	39.756	41.569	50.589
Foreign Exchange Rate (TWD/USD) *1	27.11	32.99	32.85	32.86	32.03	30.37	30.29	29.14
Purchasing Power Parity (TWD/International Dollar) *3	N.A.	N.A.	N.A.	N.A.	N.A.	18.2597	N.A.	N.A.
Price Indices								
GDP Deflator (2006=100) *2	83.3	104.7	101.1	96.6	97.3	95.3	92.6	93.7
Wholesale Price Index (2011=100) *2	74.0	77.3	84.2	99.6	90.9	95.9	100.0	98.8
Consumer Price Index (2011=100) *2	69.6	89.8	92.9	98.5	97.7	98.6	100.0	101.9
Growth Rate (%) *2								
Real GDP	6.87	5.80	4.70	0.73	-1.81	10.76	4.19	1.48
Population	1.21	0.83	0.36	0.34	0.36	0.18	0.27	0.39
Price								
Wholesale Price Index	-0.6	1.8	0.6	5.1	-8.7	5.5	4.3	-1.2
Consumer Price Index	4.1	1.3	2.3	3.5	-0.9	1.0	1.4	1.9

Source : \*1 : "Taiwan Statistics Data Book", Council for Economic Planning and Development (Chinese Taipei)

\*2 : Calculated from \*1 by the Coordinating Agency with IEA Energy Statistics

\*3 : PPP in 2000 is estimated by IEA data.

Note : N.A. means "not available"  
 : TWD means New Taiwan Dollar, USD means United States Dollar  
 : PPP means Purchasing Power Parity

## Energy Price of Chinese Taipei in 2012

### Currency Exchange Rate

	Local currency / USD	29.68
Local Currency Unit		NTD

### IMPORT PRICES

### WHOLESALE PRICES

### CONSUMER PRICES

	Unit	Amount		Unit	Amount		Unit	Amount
<b>Coal and Coal Products</b>								
Coking Coal	USD/ton	218.96	Coking Coal			Coking Coal		
Anthracite	USD/ton	179.08	Anthracite			Anthracite		
Other bituminous coal	USD/ton	119.15	Other bituminous coal			Other bituminous coal		
Sub-bituminous Coal	USD/ton	90.59	Sub-bituminous Coal			Sub-bituminous Coal		
Lignite			Lignite			Lignite		
Peat			Peat			Peat		
Patent Fuel			Patent Fuel			Patent Fuel		
Coke	USD/ton	332.05	Coke			Coke		
Coal Tar			Coal Tar			Coal Tar		
BKB/PB			BKB/PB			BKB/PB		
			Gas Works Gas			Gas Works Gas		
<b>Oil and Oil Products</b>								
Crude Oil	USD/bbl	111.12	Crude Oil			Crude Oil		
Natural Gas Liquids			Natural Gas Liquids			Natural Gas Liquids		
Ethane			Ethane			Ethane		
LPG	USD/ton	890.82	LPG	NTD/kg	30.06	LPG	NTD/kg	30.06
Naphtha	USD/ton	981.26	Naphtha			Naphtha		
Motor Gasoline			Motor Gasoline	NTD/L	32.32	Motor Gasoline	NTD/L	34.97
Aviation Gasoline			Aviation Gasoline			Aviation Gasoline		
Gasoline Type Jet Fuel			Gasoline Type Jet Fuel			Gasoline Type Jet Fuel		
Kerosene Type Jet Fuel			Kerosene Type Jet Fuel			Kerosene Type Jet Fuel		
Other Kerosene			Other Kerosene	NTD/L	41.50	Other Kerosene	NTD/L	41.50
Gas/Diesel Oil			Gas/Diesel Oil	NTD/L	30.72	Gas/Diesel Oil	NTD/L	32.10
Fuel Oil	USD/kL	780.78	Fuel Oil	NTD/L	20.87	Fuel Oil	NTD/L	20.87
White Spirit SBP			White Spirit SBP			White Spirit SBP		
Lubricants			Lubricants			Lubricants		
Bitumen			Bitumen			Bitumen		
Paraffin Waxes			Paraffin Waxes			Paraffin Waxes		
Petroleum Coke			Petroleum Coke			Petroleum Coke		
<b>Natural Gas</b>								
Natural Gas			Natural Gas	NTD/m³	20.35	Natural Gas	NTD/m³	20.45
Liquefied Natural Gas	USD/ton	778.14	Liquefied Natural Gas	NTD/m³	22.17	Liquefied Natural Gas		
Compressed Natural Gas			Compressed Natural Gas			Compressed Natural Gas		
<b>Electricity</b>								
Electricity			Electricity	NTD/kWh	2.72	Industrial	NTD/kWh	2.618
						Commercial	NTD/kWh	3.098
						Residential	NTD/kWh	2.100
						Others		
<b>Other Energy Products</b>								
			Other Energy Products			Other Energy Products		

### 3.19 Thailand

**Energy Balance Table of Thailand**

	Coal	Coal Products	Crude Oil & NGL	Petroleum Products				
				Total	Gasoline	Naphtha	Jet Fuel	Kerosene
<b>2012</b>								
Indigenous Production	4,798	-	17,497	-	-	-	-	-
Import	4,720	7,030	45,074	2,908	250	-	2	-
Export	-2	-5	-2,423	-13,808	-1,181	-	-620	-26
International Marine Bunkers	-	-	-	-	-	-	-	-
International Aviation Bunkers	-	-	-	-3,937	-	-	-3,937	-
Stock Changes	-1,208	-766	201	318	-156	-	-15	-31
<b>Total Primary Energy Supply</b>	<b>8,308</b>	<b>6,259</b>	<b>60,349</b>	<b>-14,520</b>	<b>-1,087</b>	-	<b>-4,570</b>	<b>-58</b>
Transfers	-	-	-4,106	4,106	-	-	-	-
<b>Total Transformation Sector</b>	<b>-6,935</b>	<b>-957</b>	<b>-49,377</b>	<b>50,901</b>	<b>6,881</b>	-	<b>4,833</b>	<b>68</b>
Main Activity Producer	-6,935	-957	-	-508	-	-	-	-35
Autoproducers	-	-	-	-	-	-	-	-
Gas Processing	-	-	-	-	-	-	-	-
Petroleum Refineries	-	-	-50,530	51,409	6,881	-	4,833	68
Coal Transformation	-	-	-	-	-	-	-	-
Other Transformation	-	-	1,153	-	-	-	-	-
Loss & Own Use	-	-	-	-	-	-	-	-
Discrepancy	-31	-1	-196	1	-1	-	0	2
<b>Total Final Energy Consumption</b>	<b>1,342</b>	<b>5,301</b>	<b>6,670</b>	<b>40,488</b>	<b>5,793</b>	-	<b>263</b>	<b>12</b>
<b>Industry Sector</b>	<b>1,342</b>	<b>5,301</b>	-	<b>3,841</b>	<b>125</b>	-	-	<b>10</b>
Iron and Steel	61	133	-	360	4	-	-	2
Chemical & Petrochemical	23	382	-	448	20	-	-	2
Non-metallic Minerals	1,129	3,686	-	249	4	-	-	2
Other Industries	129	1,101	-	2,785	98	-	-	5
<b>Transport Sector</b>	-	-	-	<b>20,062</b>	<b>5,620</b>	-	<b>263</b>	-
Domestic Air Transport	-	-	-	263	-	-	263	-
Road	-	-	-	18,796	5,620	-	-	11,927
Rail	-	-	-	78	-	-	-	78
Inland Waterways	-	-	-	925	-	-	-	153
Pipeline Transport	-	-	-	-	-	-	-	-
Non-specified Transport	-	-	-	-	-	-	-	-
<b>Other Sector</b>	-	-	-	<b>7,381</b>	<b>48</b>	-	-	<b>3</b>
Residential	-	-	-	2,407	-	-	-	2
Commerce and Public Services	-	-	-	1,183	-	-	-	-
Agriculture	-	-	-	3,791	48	-	-	0
Non-specified Others	-	-	-	-	-	-	-	-
<b>Non-energy</b>	-	-	<b>6,670</b>	<b>9,204</b>	-	-	-	-
<b>2011</b>								
Indigenous Production	6,048	-	17,910	-	-	-	-	-
Import	3,035	7,464	41,814	2,091	26	-	9	-
Export	-3	-1	-1,808	-9,229	-728	-	-992	-88
International Marine Bunkers	-	-	-	-	-	-	-	-
International Aviation Bunkers	-	-	-	-4,105	-	-	-4,105	-
Stock Changes	-619	-88	1,171	-1,852	-45	-	-21	-34
<b>Total Primary Energy Supply</b>	<b>8,461</b>	<b>7,375</b>	<b>59,086</b>	<b>-13,096</b>	<b>-747</b>	-	<b>-5,109</b>	<b>-122</b>
Transfers	-	-	-5,571	5,571	-	-	-	-
<b>Total Transformation Sector</b>	<b>-6,749</b>	<b>-1,896</b>	<b>-47,060</b>	<b>38,656</b>	<b>6,260</b>	-	<b>5,192</b>	<b>133</b>
Main Activity Producer	-6,333	-	-	-447	-	-	-	-28
Autoproducers	-416	-1,896	-	-7	-	-	-	-
Gas Processing	-	-	-	-	-	-	-	-
Petroleum Refineries	-	-	-47,947	39,109	6,260	-	5,192	133
Coal Transformation	-	-	-	-	-	-	-	-
Other Transformation	-	-	886	-	-	-	-	-
Loss & Own Use	-	-	-	-	-	-	-	-
Discrepancy	75	1	-181	-4	-2	-	-0	1
<b>Total Final Energy Consumption</b>	<b>1,788</b>	<b>5,480</b>	<b>6,273</b>	<b>31,127</b>	<b>5,511</b>	-	<b>83</b>	<b>12</b>
<b>Industry Sector</b>	<b>1,788</b>	<b>5,480</b>	-	<b>2,908</b>	<b>15</b>	-	-	<b>8</b>
Iron and Steel	269	181	-	302	-	-	-	1
Chemical & Petrochemical	12	322	-	339	2	-	-	3
Non-metallic Minerals	1,417	3,653	-	230	1	-	-	1
Other Industries	90	1,324	-	2,036	12	-	-	3
<b>Transport Sector</b>	-	-	-	<b>19,536</b>	<b>5,449</b>	-	<b>83</b>	-
Domestic Air Transport	-	-	-	83	-	-	83	-
Road	-	-	-	18,188	5,449	-	-	11,656
Rail	-	-	-	79	-	-	-	79
Inland Waterways	-	-	-	1,185	-	-	-	148
Pipeline Transport	-	-	-	-	-	-	-	-
Non-specified Transport	-	-	-	-	-	-	-	-
<b>Other Sector</b>	-	-	-	<b>6,825</b>	<b>47</b>	-	-	<b>4</b>
Residential	-	-	-	2,040	-	-	-	4
Commerce and Public Services	-	-	-	1,090	-	-	-	-
Agriculture	-	-	-	3,694	47	-	-	0
Non-specified Others	-	-	-	-	-	-	-	-
<b>Non-energy</b>	-	-	<b>6,273</b>	<b>1,859</b>	-	-	-	-

Note: Others Excludes non-commercial biomass supply and consumption.

unit: ktoe

Fuel Oil	LPG	Refinery Gas	Ethane	Other Products	Gas	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
-	-	-	-	-	35,757	743	-	41	3,448	-	-	62,284
344	2,038	-	-	260	9,901	-	-	-	-	888	-	70,521
-3,661	-11	-	-	-3,635	-	-	-	-	-	-164	-	-16,403
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-3,937
-269	-1,404	-	-	1,493	-	-	-	-	-	-	-	-1,455
-3,586	623	-	-	-1,881	45,658	743	-	41	3,448	724	-	111,011
-	4,106	-	-	-	-	-	-	-	-	-	-	-
5,383	1,782	-	-	10,124	-24,164	-743	-	-41	-3,448	14,729	-	-20,036
-473	-	-	-	-	-24,164	-743	-	-41	-	14,729	-	-18,619
-	-	-	-	-	-	-	-	-	-2,295	-	-	-2,295
-	-	-	-	-	-	-	-	-	-	-	-	-
5,856	1,782	-	-	10,124	-	-	-	-	-	-	-	879
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-1,153	-	-	-
-	-	-	-	-	-14,791	-	-	-	-	-1,582	-	-16,372
-0	-1	-	-	0	-0	-	-	0	-	0	-	-227
1,796	6,510	-	-	8,243	6,703	-	-	0	-	13,871	-	74,376
1,021	712	-	-	-	2,659	-	-	-	-	5,732	-	18,875
139	108	-	-	-	267	-	-	-	-	1,971	-	2,792
83	222	-	-	-	571	-	-	-	-	907	-	2,330
41	72	-	-	-	768	-	-	-	-	590	-	6,421
759	310	-	-	-	1,052	-	-	-	-	2,264	-	7,331
771	1,249	-	-	-	2,480	-	-	-	-	9	-	22,552
-	-	-	-	-	-	-	-	-	-	-	-	263
-	1,249	-	-	-	2,480	-	-	-	-	-	-	21,277
-	-	-	-	-	-	-	-	-	-	9	-	87
771	-	-	-	-	-	-	-	-	-	-	-	925
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
4	3,589	-	-	-	1	-	-	0	-	8,131	-	15,513
-	2,404	-	-	-	-	-	-	-	-	3,148	-	5,554
1	1,182	-	-	-	1	-	-	0	-	4,844	-	6,029
3	3	-	-	-	-	-	-	-	-	33	-	3,824
-	-	-	-	-	-	-	-	-	-	106	-	106
-	960	-	-	8,243	1,563	-	-	-	-	-	-	17,436
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	31,093	702	-	9	2,981	-	-	58,743
315	1,692	-	-	-	9,691	-	-	-	-	919	-	65,013
-3,309	-19	-	-	-	-	-	-	-	-	-141	-	-11,183
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-4,105
-202	-2,201	-	-	-	-	-	-	-	-	-	-	-1,388
-3,196	-528	-	-	-	40,784	702	-	9	2,981	777	-	107,079
-	5,571	-	-	-	-	-	-	-	-	-	-	-0
5,128	1,867	-	-	-	-23,064	-702	-	-9	-2,981	13,324	-	-30,482
-419	-	-	-	-	-19,531	-702	-	-9	-	11,900	-	-15,121
-7	-	-	-	-	-3,534	-	-	-	-2,093	1,424	-	-6,621
-	-	-	-	-	-0	-	-	-	-	-	-	-0
5,554	1,867	-	-	-	-	-	-	-	-	-	-	-8,838
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-888	-	-	-2
-	-	-	-	-	-11,305	-	-	-	-	-1,338	-	-12,643
0	-4	-	-	-	0	-	-	-	-	-4	-	-114
1,932	6,906	-	-	-	6,414	-	-	-	-	12,759	-	63,841
891	836	-	-	-	2,469	-	-	-	-	5,425	-	18,070
126	117	-	-	-	271	-	-	-	-	1,918	-	2,942
70	218	-	-	-	381	-	-	-	-	882	-	1,937
23	115	-	-	-	786	-	-	-	-	556	-	6,642
672	385	-	-	-	1,030	-	-	-	-	2,069	-	6,549
1,037	1,083	-	-	-	2,055	-	-	-	-	9	-	21,599
-	-	-	-	-	-	-	-	-	-	-	-	83
-	1,083	-	-	-	2,055	-	-	-	-	-	-	20,243
-	-	-	-	-	-	-	-	-	9	-	-	88
1,037	-	-	-	-	-	-	-	-	-	-	-	1,185
-	-	-	-	-	-	-	-	-	-	-	-	-
4	3,128	-	-	-	2	-	-	-	-	7,325	-	14,152
-	2,036	-	-	-	-	-	-	-	-	2,831	-	4,872
1	1,089	-	-	-	2	-	-	-	-	4,400	-	5,493
3	3	-	-	-	-	-	-	-	-	26	-	3,720
-	-	-	-	-	-	-	-	-	-	68	-	68
-	1,859	-	-	-	1,888	-	-	-	-	-	-	10,020

**Major Energy Indicators of Thailand**

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	1990	2000	2005	2008	2009	2010	2011	2012
<b>Total</b>								
Primary Energy Supply	27,918	60,372	78,337	84,021	96,749	106,316	107,079	111,011
Indigenous Production	11,854	28,559	34,323	40,097	50,959	57,473	58,743	62,284
Import	18,968	40,086	57,234	59,822	62,494	65,621	65,013	70,521
Export	-791	-5,450	-9,024	-11,760	-12,634	-12,165	-11,183	-16,403
Final Energy Consumption	20,196	38,675	52,278	55,233	59,418	62,220	63,841	74,376
Industry	5,917	12,833	17,729	18,201	17,580	18,768	18,070	18,875
Transport	9,452	15,945	20,247	19,739	20,999	21,194	21,599	22,552
Residential	487	5,828	3,513	4,097	4,367	4,534	4,872	5,554
Commerce & Public Services	478	728	3,826	4,952	4,927	5,604	5,493	6,029
Others	3,863	3,341	6,963	8,244	11,546	12,120	13,808	21,366
<b>Coal, Coal Products</b>								
Primary Energy Supply	3,828	7,838	10,680	14,859	14,251	15,117	15,836	14,567
Indigenous Production	3,603	5,196	5,220	4,788	4,819	5,012	6,048	4,798
Import	220	2,655	5,461	10,118	10,269	10,768	10,499	11,750
Export	-	-	-	-47	-17	-13	-4	-7
Transformation Sector	-	-	-4,725	-7,270	-6,745	-6,820	-8,644	-7,892
Power Generation	-2,472	-4,204	-4,725	-7,270	-6,745	-6,820	-8,644	-7,892
Final Energy Consumption	1,357	3,660	6,827	7,816	7,502	8,316	7,267	6,643
Industry	1,356	3,660	6,827	7,816	7,502	8,316	7,267	6,643
Transport	-	-	-	-	-	-	-	-
Residential	-	-	-	-	-	-	-	-
Commerce & Public Services	-	-	-	-	-	-	-	-
Others	0	-	-	-	-	-	-	-
<b>Crude Oil</b>								
Primary Energy Supply	12,220	39,400	52,006	53,948	58,249	59,437	59,086	60,349
Indigenous Production	2,112	5,159	12,348	15,575	16,573	18,295	17,910	17,497
Import	10,961	34,062	41,693	40,893	43,288	42,757	41,814	45,074
Export	-767	-514	-3,453	-2,520	-2,248	-1,589	-1,808	-2,423
Transformation Sector	-	-	-46,494	-49,497	-49,205	-48,436	-47,060	-49,377
Petroleum Refineries	-11,806	-38,169	-46,494	-50,104	-49,205	-49,254	-47,947	-50,530
<b>Petroleum Products</b>								
Primary Energy Supply	5,678	-7,243	-9,149	-12,862	-13,689	-14,198	-13,096	-14,520
Import	7,731	1,179	1,980	367	433	163	2,091	2,908
Export	-21	-4,919	-5,516	-9,091	-10,234	-10,423	-9,229	-13,808
Transformation Sector	-	-	34,166	38,410	40,183	39,422	38,656	50,901
Power Generation	-2,548	-2,344	-1,967	-379	-172	-263	-453	-508
Petroleum Refineries	11,490	32,193	36,365	38,789	40,355	39,684	39,109	51,409
Final Energy Consumption	15,246	24,420	29,951	28,774	29,928	30,324	31,127	40,488
Industry	2,753	4,335	4,032	2,964	2,899	2,818	2,908	3,841
Transport	9,452	15,939	20,192	19,074	19,714	19,576	19,536	20,062
Residential	487	908	1,310	1,622	1,755	1,667	2,040	2,407
Commerce & Public Services	477	728	570	810	876	1,204	1,090	1,183
Others	2,077	2,510	3,848	4,304	4,683	5,060	5,553	12,995
<b>Natural Gas</b>								
Primary Energy Supply	5,710	19,620	22,788	25,321	34,819	42,496	40,784	45,658
Indigenous Production	5,710	17,685	15,068	17,117	26,525	31,189	31,093	35,757
Import	-	1,935	7,720	8,204	8,294	11,307	9,691	9,901
Export	-	-	-	-	-	-	-	-
Transformation Sector	-	-	-21,185	-22,139	-22,751	-24,983	-23,064	-24,164
Power Generation	-4,216	-14,106	-21,185	-22,139	-22,751	-24,983	-23,064	-24,164
Final Energy Consumption	267	1,389	2,067	3,182	4,822	5,053	6,414	6,703
Industry	266	1,386	2,017	2,522	2,346	2,191	2,469	2,659
Transport	-	2	50	660	1,280	1,612	2,055	2,480
Residential	-	-	-	-	-	-	-	-
Commerce & Public Services	-	-	-	-	0	1	2	1
Others	0	-	-	-	1,196	1,250	1,888	1,563
<b>Electricity</b>								
Power Generation	3,799	8,254	11,369	12,679	12,761	13,719	13,324	14,729
Thermal	3,370	7,734	9,684	10,670	10,526	11,561	10,520	11,651
Hydro	428	518	499	612	615	476	702	743
Nuclear	-	-	-	-	-	-	-	-
Others	1	2	1,187	1,397	1,621	1,681	2,101	2,335
Final Energy Consumption	3,297	7,562	10,387	11,608	11,587	12,813	12,759	13,871
Industry	1,542	3,452	4,853	4,898	4,833	5,444	5,425	5,732
Transport	-	3	5	5	5	6	9	9
Residential	0	0	2,203	2,476	2,612	2,867	2,831	3,148
Commerce & Public Services	0	0	3,256	4,142	4,050	4,399	4,400	4,844
Others	1,755	4,107	70	87	87	97	94	138

### Major Economic Indicators of Thailand

	1990	2000	2005	2008	2009	2010	2011	2012
Population (Millions) *1	56.58	62.34	65.56	66.19	66.28	66.40	66.58	66.79
Gross Domestic Product *3								
Real Term (Billions of 2010 Price and 2010 USD)	134.98	208.74	267.69	302.86	295.80	318.91	319.15	343.62
Real Term (Billions of 2010 Price and 2010 PPP)	353.42	546.55	700.90	792.97	774.50	834.99	835.63	899.70
Nominal (Billions of Current USD)	85.34	122.73	176.35	272.58	263.71	318.91	345.67	365.97
GDP per Capita *3								
Real Term (2010 Price and 2010 USD)	2,386	3,348	4,083	4,576	4,463	4,803	4,794	5,145
Real Term (2010 Price and 2010 PPP)	6,246	8,767	10,691	11,981	11,686	12,575	12,552	13,472
Nominal (Current USD)	1,508	1,969	2,690	4,118	3,979	4,803	5,192	5,480
Nominal GDP & its Components (Billions of Current THB) *1								
Gross Domestic Product	2,183.54	4,922.73	7,092.89	9,080.47	9,041.55	10,104.82	10,540.13	11,375.35
Household Final Consumption Expenditure, etc.	1,239.38	2,815.78	4,098.47	5,082.28	4,953.59	5,423.31	5,857.98	6,318.90
General Government Final Consumption Expenditure	205.35	557.81	843.65	1,120.84	1,213.93	1,310.03	1,397.53	1,544.33
Gross Fixed Capital Formation	881.76	1,081.42	2,049.82	2,492.33	2,181.82	2,499.31	2,769.02	3,245.93
Stock Change	21.21	42.74	180.34	152.27	-261.32	121.38	37.45	137.21
Exports of Goods and Services	745.29	3,287.28	5,218.08	6,941.53	6,180.05	7,203.30	8,109.95	8,529.21
Imports of Goods and Services	909.46	2,862.31	5,297.47	6,708.78	5,226.53	6,452.51	7,631.79	8,400.22
Real GDP & its Components (Billions of 1988 THB) *1								
Gross Domestic Product	1,945.37	3,008.40	3,858.02	4,364.83	4,263.14	4,596.11	4,599.66	4,952.32
Household Final Consumption Expenditure, etc.	1,090.24	1,658.78	2,135.67	2,308.75	2,287.20	2,393.15	2,420.17	2,635.80
General Government Final Consumption Expenditure	171.94	277.13	344.92	399.31	429.06	456.38	461.52	496.10
Gross Fixed Capital Formation	759.87	597.44	902.42	962.69	873.73	955.43	986.50	1,116.69
Stock Change	20.65	25.64	76.60	67.86	-102.58	37.10	7.47	43.89
Exports of Goods and Services	709.65	1,947.08	2,554.38	3,159.12	2,764.26	3,170.36	3,471.35	3,578.12
Imports of Goods and Services	806.98	1,497.67	2,155.98	2,532.90	1,988.55	2,416.31	2,747.35	2,918.28
Sectional Shares of Real GDP (%) *1								
Agriculture, Fishery and Forest	13.6	10.3	9.0	8.8	9.2	8.3	8.6	8.3
Industry	37.8	44.4	46.9	47.9	46.6	48.7	46.8	46.6
Services, etc.	48.6	45.3	44.0	43.3	44.3	43.0	44.5	45.1
Industrial Production Index (2000=100)	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
External Trade (Billions of Current USD) *1								
Exports, f.o.b.	23.068	69.057	110.936	177.778	152.422	193.306	222.576	229.519
Imports, c.i.f.	33.045	61.924	118.178	179.225	133.709	182.921	228.787	247.590
Balance of Payments (Billions of Current USD) *2								
Trade Balance	N.A.	N.A.	3.392	17.394	32.607	29.667	16.991	6.031
Current Account	N.A.	N.A.	-7.647	2.211	21.891	9.946	8.916	-1.431
Overall Balance	N.A.	N.A.	-0.675	14.522	19.382	35.083	1.398	12.501
Foreign Exchange Rate (THB/USD) *1	25.5855	40.1118	40.2201	33.3133	34.2858	31.6857	30.4917	31.0831
Purchasing Power Parity (THB/International Dollar) *1	9.3545	11.1320	11.1340	11.6790	11.8154	12.1017	12.3704	12.1868
Price Indices								
GDP Deflator (1988=100) *3	112.2	163.6	183.8	208.0	212.1	219.9	229.2	229.7
Wholesale Price Index (2010=100) *2	42.5	60.6	76.5	95.0	91.4	100.0	105.5	106.5
Consumer Price Index (2010=100) *2	49.7	77.3	86.6	97.7	96.8	100.0	103.8	106.9
Growth Rate (%) *3								
Real GDP	11.17	4.75	4.60	2.48	-2.33	7.81	0.08	7.67
Population	1.34	1.17	0.73	0.16	0.14	0.19	0.26	0.31
Price								
Wholesale Price Index	3.5	3.9	9.1	12.4	-3.8	9.4	5.5	1.0
Consumer Price Index	5.9	1.6	4.5	5.5	-0.8	3.3	3.8	3.0

Source : \*1 : "World Development Indicators", World Bank

\*2 : "International Financial Statistics", International Monetary Fund

\*3 : Calculated from \*1 and \*2 by the Coordinating Agency

Note : N.A. means "not available"

: THB means Baht, USD means United States Dollar

: PPP means Purchasing Power Parity

## Energy Price of Thailand in 2012

### Currency Exchange Rate

Currency Exchange Rate	Local currency / USD	
Local Currency Unit	THB	

### IMPORT PRICES

	Unit	Amount
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### WHOLESALE PRICES

	Unit	Amount
--	------	--------

### CONSUMER PRICES

	Unit	Amount
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<b>Coal and Coal Products</b>		
Coking Coal		Coking Coal
Anthracite	Baht/ton	5,853
Other bituminous coal		Anthracite
Sub-bituminous Coal		Other bituminous coal
Lignite		Sub-bituminous Coal
Peat	Baht/ton	9,796
Patent Fuel		Lignite
Coke	Baht/ton	17,980
Coal Tar		Peat
BKB/PB	bath/Ton	19,163
Coal Solid Fuels From Coal	bath/Ton	2,478
<b>Oil and Oil Products</b>		
Crude Oil	USD / bbl	113.94
Natural Gas Liquids		Crude Oil
Ethane		Natural Gas Liquids
LPG		Ethane
Naphtha		LPG
Motor Gasoline		Naphtha
Aviation Gasoline		Motor Gasoline
Gasoline Type Jet Fuel		Aviation Gasoline
Kerosene Type Jet Fuel		Gasoline Type Jet Fuel
Other Kerosene		Kerosene Type Jet Fuel
Gas/Diesel Oil		Other Kerosene
Fuel Oil		Gas/Diesel Oil
White Spirit SBP		Fuel Oil
Lubricants		White Spirit SBP
Bitumen		Lubricants
Paraffin Waxes		Bitumen
Petroleum Coke		Paraffin Waxes
<b>Natural Gas</b>		
Natural Gas		Petroleum Coke
Liquefied Natural Gas		<b>Natural Gas</b>
Compressed Natural Gas		Natural Gas
<b>Electricity</b>		
Electricity		Liquefied Natural Gas
		Compressed Natural Gas
		<b>Electricity</b>
		Industrial
		Commercial
		Residential
		Others
<b>Other Energy Products</b>		
		<b>Other Energy Products</b>
		Other Energy Products

### 3.20 United States of America

## Energy Balance Table of United States of America

	Coal	Coal Products	Crude Oil & NGL	Petroleum Products					Gas/Diesel Oil
				Total	Gasoline	Naphtha	Jet Fuel	Kerosene	
<b>2012</b>									
Indigenous Production	495,485	-	407,505	-	-	-	-	-	-
Import	5,109	709	483,420	68,288	32,756	1,456	3,087	49	6,941
Export	-73,147	-609	-13,863	-134,714	-23,328	-	-6,568	-304	-50,127
International Marine Bunkers	-	-	-	-15,409	-	-	-	-	-3,117
International Aviation Bunkers	-	-	-	-21,342	-	-	-21,342	-	-
Stock Changes	-2,390	87	-4,586	1,966	-831	-6	105	92	2,189
<b>Total Primary Energy Supply</b>	<b>425,057</b>	<b>187</b>	<b>872,477</b>	<b>-101,211</b>	<b>8,597</b>	<b>1,450</b>	<b>-24,717</b>	<b>-163</b>	<b>-44,114</b>
Transfers	-	-	-48,613	50,653	2,157	-	-349	-65	166
<b>Total Transformation Sector</b>	<b>-398,395</b>	<b>4,140</b>	<b>-818,048</b>	<b>830,001</b>	<b>377,789</b>	<b>9,478</b>	<b>72,628</b>	<b>413</b>	<b>227,595</b>
Main Activity Producer	-379,729	-191	-	-5,085	-	-	-102	-26	-1,237
Autoproducers	-2,440	-973	-	-697	-	-	-1	-	-39
Gas Processing	-1,969	-	-	-	-	-	-	-	-
Petroleum Refineries	-	-	-845,260	835,783	377,789	9,478	72,731	439	228,871
Coal Transformation	-14,258	5,304	-	-	-	-	-	-	-
Other Transformation	-	-	27,212	-	-	-	-	-	-
Loss & Own Use	-206	-1,674	-	-35,238	-1,448	-	-56	-	-6,125
Discrepancy	-8,991	-0	-3,640	-306	-4	3	-1	-2	11
<b>Total Final Energy Consumption</b>	<b>17,464</b>	<b>2,653</b>	<b>2,175</b>	<b>743,899</b>	<b>387,091</b>	<b>10,931</b>	<b>47,504</b>	<b>183</b>	<b>177,532</b>
<b>Industry Sector</b>	<b>16,563</b>	<b>2,653</b>	<b>-</b>	<b>20,342</b>	<b>356</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>10,853</b>
Iron and Steel	-	1,716	-	479	-	-	-	-	59
Chemical & Petrochemical	3,988	-	-	2,189	-	-	-	-	735
Non-metallic Minerals	5,320	-	-	2,020	-	-	-	-	234
Other Industries	7,255	937	-	15,654	356	-	-	-	9,825
<b>Transport Sector</b>	-	-	-	579,191	381,518	-	47,504	-	144,727
Domestic Air Transport	-	-	-	48,103	599	-	47,504	-	-
Road	-	-	-	508,261	376,383	-	-	-	129,791
Rail	-	-	-	12,132	-	-	-	-	12,132
Inland Waterways	-	-	-	10,695	4,536	-	-	-	2,804
Pipeline Transport	-	-	-	-	-	-	-	-	-
Non-specified Transport	-	-	-	-	-	-	-	-	-
<b>Other Sector</b>	<b>902</b>	<b>-</b>	<b>-</b>	<b>55,708</b>	<b>5,217</b>	<b>-</b>	<b>-</b>	<b>183</b>	<b>21,953</b>
Residential	-	-	-	28,068	-	-	-	156	6,864
Commerce and Public Services	902	-	-	12,986	1,035	-	-	27	5,448
Agriculture	-	-	-	14,654	4,181	-	-	-	9,641
Non-specified Others	-	-	-	-	-	-	-	-	-
<b>Non-energy</b>	-	-	2,175	88,658	-	10,931	-	-	-
<b>2011</b>									
Indigenous Production	536,369	-	360,874	-	-	-	-	-	-
Import	7,346	886	531,317	76,406	35,798	2,346	3,125	47	6,781
Export	-62,775	-606	-12,810	-129,142	-24,127	-	-5,273	-523	-43,252
International Marine Bunkers	-	-	-	-26,390	-	-	-	-	-8,519
International Aviation Bunkers	-	-	-	-21,840	-	-	-21,840	-	-
Stock Changes	-2,191	-27	5,019	2,616	-360	-49	311	-20	1,719
<b>Total Primary Energy Supply</b>	<b>478,750</b>	<b>253</b>	<b>884,400</b>	<b>-98,349</b>	<b>11,311</b>	<b>2,297</b>	<b>-23,677</b>	<b>-496</b>	<b>-43,271</b>
Transfers	-	-	-47,729	49,964	1,484	-	-490	17	420
<b>Total Transformation Sector</b>	<b>-452,790</b>	<b>3,785</b>	<b>-824,777</b>	<b>867,021</b>	<b>387,246</b>	<b>10,064</b>	<b>72,783</b>	<b>707</b>	<b>227,684</b>
Main Activity Producer	-432,849	-212	-	-7,014	-	-	-99	-54	-1,503
Autoproducers	-2,922	-907	-	-318	-	-	-2	-	-37
Gas Processing	-1,932	-	-	-	-	-	-	-	-
Petroleum Refineries	-	-	-850,677	874,354	387,246	10,064	72,885	762	229,223
Coal Transformation	-15,087	4,904	-	-	-	-	-	-	-
Other Transformation	-	-	25,900	-	-	-	-	-	-
Loss & Own Use	-145	-1,586	-	-46,732	-5	-	-3	-	-91
Discrepancy	-6,802	-0	-10,252	-406	9	-3	-1	-2	142
<b>Total Final Energy Consumption</b>	<b>19,013</b>	<b>2,452</b>	<b>1,642</b>	<b>771,499</b>	<b>400,045</b>	<b>12,358</b>	<b>48,612</b>	<b>226</b>	<b>184,884</b>
<b>Industry Sector</b>	<b>17,713</b>	<b>2,452</b>	<b>27</b>	<b>30,432</b>	<b>3,928</b>	<b>-</b>	<b>-</b>	<b>28</b>	<b>21,404</b>
Iron and Steel	-	1,576	-	906	-	-	-	-	630
Chemical & Petrochemical	3,964	-	-	8,212	-	-	-	-	6,221
Non-metallic Minerals	4,910	-	3	4,568	-	-	-	-	4,443
Other Industries	8,839	876	24	16,745	3,928	-	-	28	10,110
<b>Transport Sector</b>	-	-	14	572,197	392,638	-	48,612	-	130,451
Domestic Air Transport	-	-	-	49,257	645	-	48,612	-	-
Road	-	-	14	506,407	388,053	-	-	-	117,936
Rail	-	-	-	11,653	-	-	-	-	11,653
Inland Waterways	-	-	-	4,019	3,940	-	-	-	-
Pipeline Transport	-	-	-	-	-	-	-	-	-
Non-specified Transport	-	-	-	861	-	-	-	-	861
<b>Other Sector</b>	<b>1,300</b>	<b>-</b>	<b>335</b>	<b>48,011</b>	<b>3,479</b>	<b>-</b>	<b>-</b>	<b>198</b>	<b>33,029</b>
Residential	-	-	253	19,500	-	-	-	165	12,091
Commerce and Public Services	1,300	-	45	14,188	1,102	-	-	28	10,064
Agriculture	-	-	37	14,323	2,376	-	-	4	10,874
Non-specified Others	-	-	-	-	-	-	-	-	-
<b>Non-energy</b>	-	-	1,265	120,858	-	12,358	-	-	-

**unit: ktoe**

**Major Energy Indicators of United States of America**

ktoe

	1990	2000	2005	2008	2009	2010	2011	2012
<b>Total</b>								
Primary Energy Supply	1,915,214	2,273,565	2,319,161	2,277,293	2,164,740	2,215,852	2,191,549	2,141,286
Indigenous Production	1,652,707	1,667,478	1,631,302	1,701,639	1,685,855	1,723,712	1,785,174	1,806,939
Import	452,512	702,077	841,997	801,504	722,698	725,465	701,491	635,337
Export	-110,606	-95,685	-105,877	-165,664	-161,707	-191,965	-243,776	-260,456
Final Energy Consumption	1,291,626	1,543,499	1,558,117	1,522,195	1,440,051	1,497,269	1,484,531	1,431,166
Industry	281,803	329,465	271,404	269,342	234,958	259,355	261,335	246,625
Transport	487,565	588,237	622,899	601,014	574,985	595,261	589,413	597,390
Residential	209,907	264,077	271,691	267,891	262,577	268,284	263,623	254,306
Commerce & Public Services	159,285	193,071	200,411	206,816	205,313	206,159	205,289	197,101
Others	153,067	168,649	191,711	177,131	162,218	168,209	164,870	135,744
<b>Coal, Coal Products</b>								
Primary Energy Supply	460,199	533,627	558,412	545,764	484,978	502,642	479,002	425,244
Indigenous Production	542,320	536,856	565,282	579,299	530,133	531,848	536,369	495,485
Import	2,119	10,014	19,598	21,096	12,757	11,440	8,232	5,818
Export	-67,987	-38,315	-29,460	-48,222	-34,866	-48,241	-63,381	-73,756
Transformation Sector	-411,742	-517,574	-512,814	-508,846	-449,318	-475,816	-449,005	-394,255
Power Generation	-396,158	-501,570	-504,579	-495,768	-440,273	-463,648	-436,890	-383,333
Final Energy Consumption	53,691	29,737	28,624	26,859	21,217	23,199	21,465	20,118
Industry	44,053	27,519	26,091	25,126	19,629	21,691	20,165	19,216
Transport	-	-	-	-	-	-	-	-
Residential	1,487	1,327	-	-	-	-	-	-
Commerce & Public Services	2,412	890	2,103	1,733	1,588	1,509	1,300	902
Others	5,739	-	430	-	-	-	-	-
<b>Crude Oil</b>								
Primary Energy Supply	783,558	887,075	911,635	890,963	861,028	875,711	884,400	872,477
Indigenous Production	432,557	365,614	322,552	312,920	335,510	346,820	360,874	407,505
Import	351,041	524,271	599,509	589,004	536,295	539,803	531,317	483,420
Export	-2,100	-6,151	-4,911	-6,498	-8,420	-9,302	-12,810	-13,863
Transformation Sector	-755,276	-838,270	-852,749	-849,694	-804,884	-816,853	-824,777	-818,048
Petroleum Refineries	-755,276	-841,457	-860,820	-869,273	-827,056	-841,220	-850,677	-845,260
<b>Petroleum Products</b>								
Primary Energy Supply	-26,699	-15,906	17,564	-42,891	-59,921	-69,945	-98,349	-101,211
Import	62,247	75,823	117,923	92,452	81,571	83,348	76,406	68,288
Export	-36,779	-44,383	-53,109	-85,297	-91,652	-105,624	-129,142	-134,714
Transformation Sector	726,214	817,442	839,414	867,544	821,462	854,080	867,021	830,001
Power Generation	-27,247	-29,565	-30,044	-11,676	-9,787	-9,348	-7,332	-5,781
Petroleum Refineries	753,816	847,008	869,458	879,220	831,250	863,428	874,354	835,783
Final Energy Consumption	683,288	796,605	850,493	797,666	756,070	781,228	771,499	743,899
Industry	44,253	25,661	35,150	31,693	27,626	30,209	30,432	20,342
Transport	471,796	572,675	608,200	584,730	559,830	578,372	572,197	579,191
Residential	26,368	31,906	28,784	23,080	21,990	20,959	19,500	28,068
Commerce & Public Services	21,308	16,656	16,696	13,677	15,751	15,292	14,188	12,986
Others	119,563	149,708	161,663	144,486	130,873	136,397	135,181	103,311
<b>Natural Gas</b>								
Primary Energy Supply	438,364	547,734	507,216	541,064	535,522	556,077	568,764	595,704
Indigenous Production	418,208	446,949	421,559	469,795	479,728	494,789	531,059	558,941
Import	35,170	87,781	100,874	92,333	87,034	86,917	80,618	72,715
Export	-1,976	-5,574	-16,694	-22,097	-24,634	-26,153	-34,621	-37,093
Transformation Sector	-88,643	-135,833	-153,525	-167,172	-171,508	-183,881	-188,644	-226,244
Power Generation	-89,762	-136,916	-154,656	-168,292	-172,684	-185,086	-189,777	-227,407
Final Energy Consumption	303,076	359,988	306,719	314,256	295,422	310,520	311,685	296,580
Industry	109,917	137,920	98,188	98,045	83,930	98,774	100,146	101,926
Transport	15,414	15,182	14,164	15,698	14,585	16,306	16,637	17,610
Residential	102,586	116,262	112,649	113,956	111,088	110,963	109,263	96,454
Commerce & Public Services	61,269	73,195	68,874	72,655	71,708	71,193	72,045	65,847
Others	13,890	17,429	12,844	13,903	14,111	13,283	13,593	14,743
<b>Electricity</b>								
Power Generation	275,442	346,226	367,124	373,496	358,224	374,475	372,090	367,286
Thermal	157,283	231,900	254,934	253,593	236,017	249,633	240,827	238,005
Hydro	23,491	21,776	23,430	22,077	23,701	22,555	27,669	23,952
Nuclear	53,127	69,295	70,425	72,777	72,118	72,875	71,353	69,591
Others	41,541	23,255	18,336	25,049	26,388	29,411	32,241	35,738
Final Energy Consumption	226,487	300,954	320,912	329,348	313,444	325,649	324,822	320,508
Industry	74,523	98,222	77,241	76,805	68,570	71,073	73,234	72,748
Transport	355	380	535	586	544	552	564	588
Residential	79,466	102,550	116,894	118,678	117,345	124,331	122,361	118,215
Commerce & Public Services	72,144	99,786	109,657	114,894	112,416	114,397	114,213	113,851
Others	-	15	16,586	18,385	14,570	15,296	14,450	15,105

**Major Economic Indicators of United States of America**

	1990	2000	2005	2008	2009	2010	2011	2012
Population (Millions) *1	249.62	282.16	295.52	304.09	306.77	309.33	311.58	313.87
Gross Domestic Product *3								
Real Term (Billions of 2010 Price and 2010 USD)	9,053.68	12,717.30	14,407.92	15,013.16	14,592.42	14,958.30	15,234.60	15,657.97
Real Term (Billions of 2010 Price and 2010 PPP)	9,053.68	12,717.30	14,407.92	15,013.16	14,592.42	14,958.30	15,234.60	15,657.97
Nominal (Billions of Current USD)	5,979.60	10,289.70	13,095.40	14,720.30	14,417.90	14,958.30	15,533.80	16,244.60
GDP per Capita *3								
Real Term (2010 Price and 2010 USD)	36,269	45,071	48,755	49,370	47,568	48,358	48,894	49,886
Real Term (2010 Price and 2010 PPP)	36,269	45,071	48,755	49,370	47,568	48,358	48,894	49,886
Nominal (Current USD)	23,955	36,467	44,314	48,407	46,999	48,358	49,855	51,755
Nominal GDP & its Components (Billions of Current USD) *1								
Gross Domestic Product	5,979.60	10,289.70	13,095.40	14,720.30	14,417.90	14,958.30	15,533.80	16,244.60
Household Final Consumption Expenditure, etc.	3,825.60	6,801.60	8,790.40	10,005.60	9,842.90	10,202.00	10,711.80	11,149.60
General Government Final Consumption Expenditure	948.00	1,444.20	1,980.00	2,368.60	2,442.10	2,522.20	2,526.10	2,548.00
Gross Fixed Capital Formation	1,269.30	2,369.50	2,981.20	3,091.40	2,672.70	2,691.10	2,828.20	3,028.10
Stock Change	14.50	54.50	59.60	-32.00	-147.60	61.50	36.40	66.10
Exports of Goods and Services	551.90	1,094.30	1,310.40	1,843.10	1,583.80	1,843.50	2,101.10	2,195.90
Imports of Goods and Services	629.70	1,474.40	2,026.10	2,556.40	1,976.00	2,362.00	2,669.90	2,743.10
Real GDP & its Components (Billions of 2000 USD) *1								
Gross Domestic Product	8,228.92	11,558.79	13,095.40	13,645.50	13,263.10	13,595.64	13,846.78	14,231.57
Household Final Consumption Expenditure, etc.	5,175.52	7,548.05	8,790.40	9,231.94	9,106.18	9,275.89	9,504.02	9,706.73
General Government Final Consumption Expenditure	1,573.13	1,766.84	1,980.00	2,081.14	2,159.12	2,161.60	2,103.69	2,099.27
Gross Fixed Capital Formation	1,551.64	2,685.11	3,040.70	2,829.84	2,351.77	2,576.42	2,640.77	2,812.61
Stock Change	16.59	61.36	59.60	-31.24	-136.81	53.95	31.14	53.39
Exports of Goods and Services	605.08	1,200.92	1,310.40	1,643.95	1,494.82	1,666.41	1,784.29	1,847.43
Imports of Goods and Services	676.46	1,642.12	2,026.10	2,141.37	1,848.80	2,084.67	2,186.00	2,234.46
Sectional Shares of Real GDP (%) *1								
Agriculture, Fishery and Forest	0.9	1.0	1.1	1.0	1.1	1.1	0.9	N.A.
Industry	22.1	21.4	19.8	18.6	17.7	18.0	18.0	N.A.
Services, etc.	73.7	74.1	79.1	80.4	81.2	80.9	81.1	N.A.
Industrial Production Index (2010=100) *2	68.2	101.6	105.4	106.7	95.5	100.0	103.4	107.3
External Trade (Billions of Current USD) *1								
Exports, f.o.b.	393.592	781.918	901.082	1,287.442	1,056.043	1,278.263	1,480.432	1,547.283
Imports, c.i.f.	516.987	1,259.300	1,732.706	2,169.487	1,605.296	1,969.184	2,265.894	2,335.375
Balance of Payments (Billions of Current USD) *2								
Trade Balance	N.A.	N.A.	-783.315	-832.491	-509.751	-649.743	-743.557	-740.804
Current Account	N.A.	N.A.	-739.802	-681.341	-381.638	-449.477	-457.729	-440.423
Overall Balance	N.A.	N.A.	-40.066	60.084	-98.596	-9.762	108.645	10.346
Foreign Exchange Rate (USD/USD) *1	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Purchasing Power Parity (USD/International Dollar) *1	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Price Indices								
GDP Deflator (2005=100) *3	72.7	89.0	100.0	107.9	108.7	110.0	112.2	114.1
Wholesale Price Index (2010=100) *2	61.9	72.1	85.7	102.8	93.5	100.0	108.0	108.1
Consumer Price Index (2010=100) *2	62.5	73.1	84.9	98.5	94.7	100.0	107.5	109.7
Growth Rate (%) *3								
Real GDP	1.92	4.09	3.35	-0.29	-2.80	2.51	1.85	2.78
Population	1.14	1.12	0.93	0.95	0.88	0.83	0.73	0.74
Price								
Wholesale Price Index	3.7	6.5	8.6	9.8	-9.1	7.0	8.0	0.0
Consumer Price Index	5.4	4.7	5.8	7.4	-3.9	5.6	7.5	2.0

Source : \*1 : "World Development Indicators", World Bank

\*2 : "International Financial Statistics", International Monetary Fund

\*3 : Calculated from \*1 and \*2 by the Coordinating Agency

Note : N.A. means "not available"  
: USD means United States Dollar  
: PPP means Purchasing Power Parity

### 3.21 Viet Nam

## Energy Balance Table of Viet Nam

	Coal	Coal Products	Crude Oil & NGL	Petroleum Products				
				Total	Gasoline	Naphtha	Jet Fuel	Kerosene
<b>2012</b>								
Indigenous Production	23,734	-	17,518	-	-	-	-	-
Import	963	-	-	10,738	2,951	-	1,008	30
Export	-8,521	-	-9,643	-1,720	-350	-	-225	-5
International Marine Bunkers	-	-	-	-	-	-	-	-
International Aviation Bunkers	-	-	-	-	-	-	-	-
Stock Changes	-392	-	-1,340	91	19	-	-2	47
<b>Total Primary Energy Supply</b>	<b>15,785</b>	-	<b>6,534</b>	<b>9,109</b>	<b>2,619</b>	-	<b>781</b>	<b>72</b>
Transfers	-	-	-	-	-	-	-	-
Total Transformation Sector	-6,106	-	-6,534	5,787	2,176	-	56	-
Main Activity Producer	-6,106	-	-	-126	-	-	-	-31
Autoproducers	-	-	-	-	-	-	-	-
Gas Processing	-	-	-	-	-	-	-	-
Petroleum Refineries	-	-	-6,534	5,914	2,176	-	56	-
Coal Transformation	-	-	-	-	-	-	-	2,911
Other Transformation	-	-	-	-	-	-	-	-
Loss & Own Use	-	-	-	-	-	-	-	-
Discrepancy	-0	-	-	0	0	-	-	0
<b>Total Final Energy Consumption</b>	<b>9,678</b>	-	-	<b>14,896</b>	<b>4,795</b>	-	<b>837</b>	<b>72</b>
Industry Sector	8,299	-	-	1,611	-	-	-	9
Iron and Steel	361	-	-	66	-	-	-	0
Chemical & Petrochemical	188	-	-	75	-	-	-	1
Non-metallic Minerals	-	-	-	98	-	-	-	1
Other Industries	7,750	-	-	1,371	-	-	-	8
Transport Sector	-	-	-	10,701	4,675	-	837	-
Domestic Air Transport	-	-	-	837	-	-	837	-
Road	-	-	-	9,666	4,675	-	-	4,991
Rail	-	-	-	-	-	-	-	-
Inland Waterways	-	-	-	198	-	-	-	-
Pipeline Transport	-	-	-	-	-	-	-	-
Non-specified Transport	-	-	-	-	-	-	-	-
Other Sector	1,379	-	-	2,020	120	-	-	63
Residential	1,084	-	-	865	-	-	-	53
Commerce and Public Services	277	-	-	684	-	-	-	10
Agriculture	18	-	-	471	120	-	-	348
Non-specified Others	-	-	-	-	-	-	-	-
<b>Non-energy</b>	<b>-</b>	-	-	<b>565</b>	-	-	-	-
<b>2011</b>								
Indigenous Production	26,102	-	15,959	-	-	-	-	-
Import	766	-	-	12,257	3,061	-	978	17
Export	-9,611	-	-8,536	-2,175	-352	-	-369	-11
International Marine Bunkers	-	-	-	-	-	-	-	-
International Aviation Bunkers	-	-	-	-	-	-	-	-
Stock Changes	-1,652	-	-1,007	23	-15	-	-4	74
<b>Total Primary Energy Supply</b>	<b>15,605</b>	-	<b>6,415</b>	<b>10,105</b>	<b>2,695</b>	-	<b>605</b>	<b>80</b>
Transfers	-	-	-	-	-	-	-	-
Total Transformation Sector	-5,510	-	-6,415	5,192	2,051	-	85	-
Main Activity Producer	-5,510	-	-	-594	-	-	-	-173
Autoproducers	-	-	-	-	-	-	-	-
Gas Processing	-	-	-	-	-	-	-	-
Petroleum Refineries	-	-	-6,415	5,786	2,051	-	85	-
Coal Transformation	-	-	-	-	-	-	-	2,924
Other Transformation	-	-	-	-	-	-	-	-
Loss & Own Use	-	-	-	-	-	-	-	-
Discrepancy	-0	-	-0	-0	0	-	-	0
<b>Total Final Energy Consumption</b>	<b>10,095</b>	-	-	<b>15,297</b>	<b>4,745</b>	-	<b>690</b>	<b>80</b>
Industry Sector	8,559	-	-	1,869	-	-	-	11
Iron and Steel	373	-	-	76	-	-	-	0
Chemical & Petrochemical	194	-	-	86	-	-	-	1
Non-metallic Minerals	-	-	-	114	-	-	-	1
Other Industries	7,993	-	-	1,593	-	-	-	10
Transport Sector	-	-	-	10,818	4,607	-	690	-
Domestic Air Transport	-	-	-	690	-	-	690	-
Road	-	-	-	9,835	4,607	-	-	5,229
Rail	-	-	-	-	-	-	-	-
Inland Waterways	-	-	-	292	-	-	-	-
Pipeline Transport	-	-	-	-	-	-	-	-
Non-specified Transport	-	-	-	-	-	-	-	-
Other Sector	1,535	-	-	2,110	139	-	-	69
Residential	1,138	-	-	887	-	-	-	57
Commerce and Public Services	378	-	-	712	-	-	-	12
Agriculture	20	-	-	511	139	-	-	368
Non-specified Others	-	-	-	-	-	-	-	-
<b>Non-energy</b>	<b>-</b>	-	-	<b>501</b>	-	-	-	-

Note: Others Excludes non-commercial biomass supply and consumption.

unit: ktoe

Fuel Oil	LPG	Refinery Gas	Ethane	Other Products	Gas	Hydro	Nuclear	Geothermal, Solar, etc.	Others	Electricity	Heat	Total
-	-	-	-	-	8,253	4,541	-	-	-	-	-	54,046
815	718	-	-	566	-	-	-	-	-	230	-	11,932
-277	-10	-	-	-1	-	-	-	-	-	-105	-	-19,990
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-1,641
6	-	-	-	-	-	-	-	-	-	-	-	-1,641
544	708	-	-	565	8,253	4,541	-	-	-	125	-	44,347
-	-	-	-	-	-	-	-	-	-	-	-	-
-37	713	-	-	-	-6,815	-4,541	-	-	-	10,114	-	-8,095
-95	-	-	-	-	-6,815	-4,541	-	-	-	10,114	-	-7,475
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
58	713	-	-	-	-	-	-	-	-	-	-	-620
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-1,173	-	-1,173
0	0	-	-	-	-0	-	-	-	-	-0	-	-0
507	1,421	-	-	565	1,438	-	-	-	-	9,065	-	35,078
300	218	-	-	-	1,438	-	-	-	-	4,758	-	16,106
11	4	-	-	-	-	-	-	-	-	341	-	768
12	3	-	-	-	1,438	-	-	-	-	302	-	2,002
18	24	-	-	-	-	-	-	-	-	1,009	-	1,107
259	187	-	-	-	-	-	-	-	-	3,106	-	12,228
198	-	-	-	-	-	-	-	-	-	-	-	10,701
-	-	-	-	-	-	-	-	-	-	-	-	837
-	-	-	-	-	-	-	-	-	-	-	-	9,666
-	-	-	-	-	-	-	-	-	-	-	-	-
198	-	-	-	-	-	-	-	-	-	-	-	198
-	-	-	-	-	-	-	-	-	-	-	-	-
9	1,203	-	-	-	-	-	-	-	-	4,307	-	7,707
2	775	-	-	-	-	-	-	-	-	3,301	-	5,250
5	428	-	-	-	-	-	-	-	-	878	-	1,839
3	-	-	-	-	-	-	-	-	-	128	-	617
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	565	-	-	-	-	-	-	-	565
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	7,560	3,520	-	-	-	-	-	53,141
1,456	813	-	-	501	-	-	-	-	-	427	-	13,450
-320	-16	-	-	-	-	-	-	-	-	-93	-	-20,416
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-2,636
1,132	797	-	-	501	7,560	3,520	-	-	-	333	-	43,539
-	-	-	-	-	-	-	-	-	-	-	-	-
-343	647	-	-	-	-6,711	-3,520	-	-	-	8,925	-	-8,039
-421	-	-	-	-	-6,711	-3,520	-	-	-	8,925	-	-7,410
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-629
78	647	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-1,116	-	-1,116
0	-0	-	-	-0	0	-	-	-	-	-0	-	-0
790	1,444	-	-	501	849	-	-	-	-	8,142	-	34,382
481	222	-	-	-	849	-	-	-	-	4,308	-	15,585
17	5	-	-	-	-	-	-	-	-	309	-	757
19	3	-	-	-	849	-	-	-	-	273	-	1,401
29	24	-	-	-	-	-	-	-	-	913	-	1,027
415	190	-	-	-	-	-	-	-	-	2,812	-	12,399
292	-	-	-	-	-	-	-	-	-	-	-	10,818
-	-	-	-	-	-	-	-	-	-	-	-	690
-	-	-	-	-	-	-	-	-	-	-	-	9,835
-	-	-	-	-	-	-	-	-	-	-	-	-
292	-	-	-	-	-	-	-	-	-	-	-	292
-	-	-	-	-	-	-	-	-	-	-	-	-
17	1,222	-	-	-	-	-	-	-	-	3,834	-	7,479
3	789	-	-	-	-	-	-	-	-	2,943	-	4,967
9	433	-	-	-	-	-	-	-	-	798	-	1,889
5	-	-	-	-	-	-	-	-	-	93	-	624
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	501	-	-	-	-	-	-	-	501

**Major Energy Indicators of Viet Nam**

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	1990	2000	2005	2008	2009	2010	2011	2012
<b>Total</b>								
Primary Energy Supply	5,414	14,841	25,769	35,331	39,600	43,478	43,539	44,347
Indigenous Production	5,811	25,777	45,190	46,997	51,477	50,886	53,141	54,046
Import	2,947	8,885	12,331	15,485	15,667	13,506	13,450	11,932
Export	-3,125	-18,650	-30,064	-26,108	-29,454	-21,315	-20,416	-19,990
Final Energy Consumption	4,212	11,927	20,905	28,479	32,071	33,545	34,382	35,078
Industry	1,713	4,653	8,235	12,441	13,724	14,517	15,585	16,106
Transport	1,412	3,763	6,898	8,666	10,274	10,071	10,818	10,701
Residential	481	1,878	3,262	4,012	4,414	4,913	4,967	5,250
Commerce & Public Services	334	1,095	1,665	1,576	1,646	1,650	1,889	1,839
Others	272	537	846	1,785	2,013	2,394	1,125	1,182
<b>Coal, Coal Products</b>								
Primary Energy Supply	2,212	4,372	7,082	12,017	12,645	14,730	15,605	15,785
Indigenous Production	2,597	6,501	18,142	22,275	24,480	24,646	26,102	23,734
Import	-	-	57	452	508	656	766	963
Export	-442	-1,821	-10,072	-10,839	-13,995	-11,104	-9,611	-8,521
Transformation Sector	-	-	-2,132	-3,728	-3,680	-4,837	-5,510	-6,106
Power Generation	-888	-1,150	-2,132	-3,728	-3,680	-4,837	-5,510	-6,106
Final Energy Consumption	1,324	3,223	4,950	8,289	8,966	9,893	10,095	9,678
Industry	1,019	2,339	3,734	6,849	7,506	8,306	8,559	8,299
Transport	14	-	-	-	-	-	-	-
Residential	207	584	861	1,070	1,089	1,204	1,138	1,084
Commerce & Public Services	19	276	333	347	350	364	378	277
Others	64	24	22	22	21	20	20	18
<b>Crude Oil</b>								
Primary Energy Supply	-	20	674	691	2,696	6,968	6,415	6,534
Indigenous Production	2,750	16,584	19,609	15,863	17,317	15,746	15,959	17,518
Import	-	-	-	-	-	-	-	-
Export	-2,664	-15,701	-18,290	-14,000	-13,614	-8,279	-8,536	-9,643
Transformation Sector	-	-	-	-	-1,972	-6,968	-6,415	-6,534
Petroleum Refineries	-	-	-	-	-1,972	-6,968	-6,415	-6,534
<b>Petroleum Products</b>								
Primary Energy Supply	2,737	7,757	11,859	13,704	14,259	10,888	10,105	9,109
Import	2,947	8,885	12,274	14,757	14,806	12,368	12,257	10,738
Export	-19	-1,128	-415	-1,053	-1,813	-1,850	-2,175	-1,720
Transformation Sector	-	-	-678	-592	868	4,809	5,192	5,787
Power Generation	-381	-1,310	-678	-592	-646	-1,161	-594	-126
Petroleum Refineries	-	-	-	-	1,515	5,970	5,786	5,914
Final Energy Consumption	2,356	6,759	11,855	13,806	15,851	15,697	15,297	14,896
Industry	449	1,515	2,499	2,025	2,146	1,799	1,869	1,611
Transport	1,393	3,742	6,898	8,622	10,274	10,071	10,818	10,701
Residential	76	336	727	701	816	859	887	865
Commerce & Public Services	265	690	958	753	683	675	712	684
Others	174	476	774	1,706	1,931	2,293	1,012	1,036
<b>Natural Gas</b>								
Primary Energy Supply	3	1,440	4,649	6,408	7,101	8,124	7,560	8,253
Indigenous Production	3	1,440	5,935	6,624	7,101	8,124	7,560	8,253
Import	-	-	-	-	-	-	-	-
Export	-	-	-1,286	-216	-	-	-	-
Transformation Sector	-	-	-4,549	-5,693	-6,462	-7,631	-6,711	-6,815
Power Generation	-3	-1,102	-4,549	-5,693	-6,462	-7,631	-6,711	-6,815
Final Energy Consumption	-	18	100	540	639	493	849	1,438
Industry	-	18	100	540	639	493	849	1,438
Transport	-	-	-	-	-	-	-	-
Residential	-	-	-	-	-	-	-	-
Commerce & Public Services	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-
<b>Electricity</b>								
Power Generation	746	2,284	4,598	6,282	6,837	8,163	8,925	10,114
Thermal	285	1,033	3,093	4,047	4,258	5,793	5,405	5,572
Hydro	462	1,251	1,505	2,235	2,578	2,370	3,520	4,541
Nuclear	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-
Final Energy Consumption	532	1,927	3,967	5,844	6,616	7,462	8,142	9,065
Industry	245	782	1,870	3,026	3,434	3,920	4,308	4,758
Transport	5	21	-	44	-	-	-	-
Residential	198	958	1,674	2,242	2,509	2,850	2,943	3,301
Commerce & Public Services	50	130	374	476	613	611	798	878
Others	34	37	49	57	60	81	93	128

### Major Economic Indicators of Viet Nam

	1990	2000	2005	2008	2009	2010	2011	2012
Population (Millions) *1	66.02	77.63	82.39	85.12	86.03	86.93	87.84	88.77
Gross Domestic Product *3								
Real Term (Billions of 2010 Price and 2010 USD)	29.46	61.15	85.35	103.36	108.93	115.93	123.17	129.63
Real Term (Billions of 2010 Price and 2010 PPP)	97.19	201.74	281.60	341.00	359.40	382.49	406.36	427.68
Nominal (Billions of Current USD)	6.47	33.64	57.63	99.13	106.01	115.93	135.54	155.82
GDP per Capita *3								
Real Term (2010 Price and 2010 USD)	446	788	1,036	1,214	1,266	1,334	1,402	1,460
Real Term (2010 Price and 2010 PPP)	1,472	2,599	3,418	4,006	4,178	4,400	4,626	4,818
Nominal (Current USD)	98	433	699	1,165	1,232	1,334	1,543	1,755
Nominal GDP & its Components (Billions of Current VND) *1								
Gross Domestic Product	41,955	476,606	914,001	1,616,047	1,809,148	2,157,828	2,779,881	3,245,419
Household Final Consumption Expenditure, etc.	35,382	333,274	585,813	1,155,892	1,219,840	1,435,519	1,903,413	2,055,200
General Government Final Consumption Expenditure	5,177	28,346	49,952	90,904	104,539	129,313	164,323	192,362
Gross Fixed Capital Formation	N.A.	122,101	285,841	513,987	612,526	704,401	745,494	785,337
Stock Change	N.A.	8,670	22,702	75,759	59,800	65,810	81,538	98,823
Exports of Goods and Services	15,120	238,142	582,214	1,136,674	1,139,253	1,553,687	2,206,971	2,597,264
Imports of Goods and Services	18,996	253,927	612,521	1,357,169	1,326,810	1,730,902	2,321,858	2,483,567
Real GDP & its Components (Billions of 1994 VND) *1								
Gross Domestic Product	548,308	1,138,111	1,588,646	1,923,749	2,027,591	2,157,828	2,292,483	2,412,778
Household Final Consumption Expenditure, etc.	N.A.	812,942	1,049,382	1,355,023	1,381,566	1,435,519	1,516,978	1,503,761
General Government Final Consumption Expenditure	N.A.	59,998	84,251	107,036	115,168	129,313	138,254	148,481
Gross Fixed Capital Formation	N.A.	243,269	412,327	584,225	635,201	704,401	649,365	661,526
Stock Change	N.A.	15,311	31,434	84,549	62,413	65,810	68,448	73,051
Exports of Goods and Services	73,737	462,350	1,061,162	1,509,383	1,432,630	1,553,687	1,721,244	1,991,636
Imports of Goods and Services	91,438	455,760	1,049,910	1,716,467	1,599,387	1,730,902	1,801,807	1,965,677
Sectional Shares of Real GDP (%) *1								
Agriculture, Fishery and Forest	34	25	22	20	19	19	18	18
Industry	25	35	38	38	38	38	38	39
Services, etc.	42	40	40	42	43	43	43	43
Industrial Production Index (2010=100)	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
External Trade (Billions of Current USD) *1								
Exports, f.o.b.	2.404	14.483	32.442	62.685	57.096	72.237	96.906	114.573
Imports, c.i.f.	2.752	15.638	36.761	80.714	69.949	84.839	106.750	113.792
Balance of Payments (Billions of Current USD) *1								
Trade Balance	N.A.	N.A.	-2.439	-12.783	-7.607	-5.136	-0.450	9.885
Current Account	N.A.	N.A.	-0.560	-10.823	-6.608	-4.276	0.236	9.062
Overall Balance	N.A.	N.A.	2.527	1.518	0.564	1.925	6.626	17.337
Foreign Exchange Rate (VND/USD) *1	6,482.80	14,167.75	15,858.92	16,302.25	17,065.08	18,612.92	20,509.75	20,828.00
Purchasing Power Parity (VND/International Dollar) *1	653.59	2,919.87	3,571.07	4,833.45	5,094.67	5,641.53	6,709.19	7,314.36
Price Indices								
GDP Deflator (2010=100) *3	7.7	41.9	57.5	84.0	89.2	100.0	121.3	134.5
Wholesale Price Index (2010=100)	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Consumer Price Index (2010=100)	N.A.	48.1	59.9	85.8	91.9	100.0	118.7	129.5
Growth Rate (%) *3								
Real GDP	5.10	6.79	7.55	5.66	5.40	6.42	6.24	5.25
Population	1.92	1.35	1.17	1.07	1.06	1.05	1.04	1.06
Price								
Wholesale Price Index	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Consumer Price Index	N.A.	-1.7	8.3	23.1	7.1	8.9	18.7	9.1

Source : \*1 : "World Development Indicators", World Bank

\*2 : "International Financial Statistics", International Monetary Fund

\*3 : Calculated from \*1 and \*2 by the Coordinating Agency

Note : N.A. means "not available"  
: VND means Dong, USD means United States Dollar  
: PPP means Purchasing Power Parity

## 3.22 APEC Region

## 2.29.1 Primary Energy Supply Table

### Primary Energy Supply Table in 2012

	Australia	Brunei	Canada	Chile	China	Hong Kong	Indonesia	Japan	Korea	
<b>Primary Energy</b>										
Indigenous Production	317,402	20,016	419,723	13,053	2,289,163	67	361,863	25,142	46,040	
Import	47,273	384	82,785	25,831	507,042	29,027	46,156	449,822	286,922	
Export	-234,078	-16,872	-251,532	-874	-39,403	-971	-228,400	-13,810	-58,820	
International Marine Bunkers	-859	-	-492	-166	-1,497	-8,448	-	-4,278	-8,524	
International Aviation Bunkers	-3,183	-85	-1,004	-712	-2,642	-5,589	-	-6,415	-4,050	
Stock Change	1,739	-37	1,668	80	-84,307	-261	4,986	-296	1,194	
Total	128,293	3,406	251,148	37,213	2,668,356	13,823	184,604	450,164	262,763	
<b>Coal &amp; Coal Products</b>										
Indigenous Production	239,898	-	33,541	295	1,869,264	-	226,909	675	932	
Import	24	-	5,625	5,949	145,966	7,779	46	112,743	75,571	
Export	-194,620	-	-20,789	-	-5,886	-0	-178,782	-988	-	
Stock Change	1,598	-	-13	-81	-63,746	-491	128	-562	59	
Total	46,900	-	18,364	6,163	1,945,598	7,288	48,300	111,867	76,562	
<b>Crude oil &amp; Petroleum Products</b>										
Indigenous Production	23,007	8,448	185,582	531	207,478	-	50,330	689	658	
Import	42,252	384	49,264	16,580	321,056	17,851	45,853	234,582	168,498	
Export	-16,942	-7,973	-151,563	-874	-29,308	-810	-17,943	-12,822	-58,820	
International Marine Bunkers	-859	-	-492	-166	-1,497	-8,448	-	-4,278	-8,524	
International Aviation Bunkers	-3,183	-85	-1,004	-712	-2,642	-5,589	-	-6,415	-4,050	
Stock Change	141	-24	678	249	-20,561	230	4,858	282	-611	
Total	44,416	750	82,465	15,609	474,526	3,234	83,098	212,037	97,151	
<b>Natural Gas</b>										
Indigenous Production	47,302	11,568	129,952	1,030	99,759	-	69,435	2,767	391	
Import	4,997	-	26,077	3,293	39,430	2,374	-	102,497	42,853	
Export	-22,516	-8,899	-73,524	-	-2,691	-	-31,676	-	-	
Stock Change	-	-12	1,003	-36	-	-	-	-16	1,746	
Total	29,782	2,656	83,507	4,286	136,498	2,374	37,760	105,248	44,990	
<b>Nuclear Power</b>										
Indigenous Production	-	-	24,721	-	25,381	-	-	4,689	39,175	
<b>Hydro Power</b>										
Indigenous Production	1,206	-	32,724	1,734	75,001	-	1,101	6,865	341	
Geothermal, Solar, etc	Indigenous Production	927	0	1,004	54	8,254	1	8,099	3,931	265

### Primary Energy Supply Table in 2011

	Australia	Brunei	Canada	Chile	China	Hong Kong	Indonesia	Japan	Korea	
<b>Primary Energy</b>										
Indigenous Production	296,740	20,749	408,305	9,902	2,223,366	53	341,034	63,725	46,814	
Import	46,418	276	84,207	25,493	428,688	30,577	41,148	425,776	282,252	
Export	-226,074	-17,491	-240,864	-633	-47,437	-904	-217,441	-16,228	-54,887	
International Marine Bunkers	-624	-	-499	-490	-1,181	-9,314	-	-4,412	-8,757	
International Aviation Bunkers	-3,431	-114	-970	-442	-2,645	-5,662	-	-5,891	-4,048	
Stock Change	9,876	-43	2,838	-226	-64,586	-861	9,983	545	-1,112	
Total	122,906	3,377	253,016	33,605	2,536,205	13,889	174,724	463,514	260,263	
<b>Coal &amp; Coal Products</b>										
Indigenous Production	222,573	-	33,658	245	1,828,168	-	207,723	650	959	
Import	35	-	6,557	5,454	92,998	7,891	25	106,767	79,484	
Export	-184,069	-	-20,076	-	-10,480	-0	-160,331	-483	-	
Stock Change	9,640	-	66	-354	-43,955	-488	-637	257	-207	
Total	48,179	-	20,205	5,345	1,866,731	7,403	46,780	107,191	80,236	
<b>Crude oil &amp; Petroleum Products</b>										
Indigenous Production	23,092	8,859	172,314	641	202,876	-	51,322	722	648	
Import	40,772	276	49,653	16,640	305,896	19,113	41,123	226,822	160,866	
Export	-18,668	-8,200	-138,929	-633	-32,329	-628	-21,332	-15,745	-54,887	
International Marine Bunkers	-624	-	-499	-490	-1,181	-9,314	-	-4,412	-8,757	
International Aviation Bunkers	-3,431	-114	-970	-442	-2,645	-5,662	-	-5,891	-4,048	
Stock Change	236	-65	679	134	-20,631	-372	10,620	274	-182	
Total	41,378	756	82,247	15,849	451,986	3,137	81,733	201,769	93,641	
<b>Natural Gas</b>										
Indigenous Production	44,754	11,890	132,394	1,244	95,603	-	72,796	3,100	406	
Import	5,611	-	25,969	3,327	29,230	2,547	-	92,188	41,902	
Export	-23,337	-9,291	-76,858	-	-2,968	-	-35,778	-	-	
Stock Change	-	22	2,092	-5	-	-	-	13	-724	
Total	27,028	2,621	83,597	4,566	121,866	2,547	37,018	95,301	41,584	
<b>Nuclear Power</b>										
Indigenous Production	-	-	24,389	-	22,503	-	-	42,459	40,321	
<b>Hydro Power</b>										
Indigenous Production	1,441	-	32,309	1,807	60,109	-	1,068	7,365	395	
Geothermal, Solar, etc	Indigenous Production	837	0	901	29	6,048	1	8,124	3,768	228

Note: Primary Energy in Indonesia, Peru, Thailand and Viet Nam exclude non-commercial biomass.

Primary Energy Supply Table in 2012 (Continued)

Malaysia	Mexico	New Zealand	Papua New Guinea	Peru	Philippines	Russia	Singapore	Chinese Taipei	Thailand	United States	Viet Nam	Total
85,883	218,999	15,942	1,341	21,233	23,435	1,331,435	886	13,610	62,284	1,806,939	54,046	7,128,502
44,775	56,065	7,495	2,033	8,070	22,074	27,665	157,455	112,807	70,521	635,337	11,932	2,631,470
-53,067	-78,950	-3,702	-1,280	-10,447	-2,442	-592,651	-84,311	-16,442	-16,403	-260,456	-19,990	-1,984,903
-57	-930	-374	-	-	-181	-1,795	-41,998	-1,182	-	-15,409	-	-86,190
-2,017	-2,901	-824	-	-	-1,082	-6,605	-6,847	-2,075	-3,937	-21,342	-	-71,308
1,102	-3,768	322	-9	1,471	865	-1,675	-	739	-1,455	-3,782	-1,641	-83,067
76,621	188,514	18,859	2,085	20,327	42,668	756,374	25,184	107,457	111,011	2,141,286	44,347	7,534,504
1,860	7,529	2,875	-	148	3,879	200,719	-	-	4,798	495,485	23,734	3,112,539
14,220	4,375	83	-	456	6,278	18,265	25	35,799	11,750	5,818	963	451,737
-232	-151	-1,576	-	-115	-1,675	-85,174	-0	-76	-7	-73,756	-8,521	-572,348
-52	-2,291	135	-	359	834	-382	-	350	-1,974	-2,303	-392	-68,826
15,796	9,462	1,517	-	848	9,316	133,427	25	36,073	14,567	425,244	15,785	2,923,102
31,321	152,190	2,121	756	6,900	220	521,255	-	10	17,497	407,505	17,518	1,634,016
22,727	32,873	7,410	2,033	7,331	15,627	2,563	148,272	61,072	47,982	551,708	10,738	1,806,656
-26,053	-78,165	-2,126	-1,280	-5,140	-767	-346,702	-84,311	-16,366	-16,232	-148,577	-11,364	-1,034,137
-57	-930	-374	-	-	-181	-1,795	-41,998	-1,182	-	-15,409	-	-86,190
-2,017	-2,901	-824	-	-	-1,082	-6,605	-6,847	-2,075	-3,937	-21,342	-	-71,308
1,248	-1,061	146	-9	1,239	8	127	-	280	518	-2,620	-1,249	-16,128
27,170	102,006	6,352	1,500	10,330	13,826	168,844	15,117	41,740	45,829	771,265	15,643	2,232,908
51,157	40,357	3,799	137	11,992	3,159	540,793	-	354	35,757	558,941	8,253	1,616,904
7,819	18,615	-	-	-	-	6,606	9,158	15,935	9,901	72,715	-	362,270
-26,755	-68	-	-	-5,167	-	-158,822	-0	-	-	-37,093	-	-367,211
-	-417	42	-	-	-	-1,459	-	108	-	1,141	-	2,099
32,222	58,487	3,841	137	6,826	3,159	387,119	9,157	16,397	45,658	595,704	8,253	1,614,061
-	2,285	-	-	-	-	46,290	-	10,544	-	208,774	-	361,860
796	2,740	1,969	86	1,836	882	14,267	-	740	743	23,952	4,541	171,524
4	5,475	3,976	363	9	8,822	411	-	230	41	23,418	-	65,283

Primary Energy Supply Table in 2011 (Continued)

Malaysia	Mexico	New Zealand	Papua New Guinea	Peru	Philippines	Russia	Singapore	Chinese Taipei	Thailand	United States	Viet Nam	Total
86,567	222,817	16,019	1,433	20,560	23,080	1,314,693	120	13,782	58,743	1,785,174	53,141	7,006,816
41,172	52,440	7,357	1,722	8,277	20,964	30,563	151,599	110,117	65,013	701,491	13,450	2,569,001
-48,968	-84,856	-3,975	-886	-9,647	-2,864	-599,552	-83,790	-13,426	-11,183	-243,776	-20,416	-1,945,298
-201	-925	-342	-	-	-212	-2,990	-43,154	-1,629	-	-26,390	-	-101,119
-	-2,741	-785	-	-	-1,071	-6,426	-4,188	-1,974	-4,105	-21,840	-	-66,333
-2,015	-3,024	-182	-12	517	-141	1,987	-	752	-1,388	-3,111	-2,636	-52,839
76,555	183,711	18,093	2,257	19,707	39,756	738,275	20,587	107,622	107,079	2,191,549	43,539	7,410,227
1,838	7,789	2,894	-	114	3,632	180,042	-	-	6,048	536,369	26,102	3,058,804
13,330	4,565	91	-	433	5,786	19,205	-	37,081	10,499	8,232	766	399,199
-141	-6	-1,535	-	-119	-1,444	-80,571	-	-66	-4	-63,381	-9,611	-532,318
-372	-2,282	-13	-	371	-248	131	-	-22	-706	-2,217	-1,652	-42,689
14,655	10,066	1,436	-	799	7,726	118,807	-	36,992	15,836	479,002	15,605	2,882,996
30,963	153,330	2,382	890	6,740	313	514,868	-	10	17,910	360,874	15,959	1,564,712
20,902	32,951	7,265	1,722	7,628	15,029	4,668	144,994	57,777	43,905	607,723	12,257	1,817,981
-20,946	-84,540	-2,440	-886	-4,340	-1,420	-351,586	-83,790	-13,360	-11,037	-141,951	-10,712	-1,018,358
-201	-925	-341	-	-	-212	-2,990	-43,154	-1,629	-	-26,390	-	-101,119
-	-2,741	-785	-	-	-1,071	-6,426	-4,188	-1,974	-4,105	-21,840	-	-66,333
-1,556	-515	-99	-12	188	114	-11	-	766	-682	7,635	-984	-4,464
29,163	97,560	5,982	1,714	10,215	12,753	158,523	13,862	41,591	45,990	786,051	16,521	2,192,420
52,381	41,800	3,481	128	11,488	3,293	552,886	-	264	31,093	531,059	7,560	1,597,619
6,938	14,872	-	-	-	-	6,553	6,605	15,260	9,691	80,618	-	341,311
-27,838	-209	-	-	-5,184	-	-165,316	-	-	-	-34,621	-	-381,401
-	-226	-71	-	-	-	1,868	-	8	-	-8,292	-	-5,313
31,481	56,236	3,411	128	6,304	3,293	395,990	6,605	15,532	40,784	568,764	7,560	1,552,216
-	2,629	-	-	-	-	45,094	-	10,976	-	214,058	-	402,428
693	3,119	2,160	71	1,856	812	14,263	-	594	702	27,669	3,520	159,954
-	5,880	3,894	344	6	8,558	449	-	237	9	21,117	-	60,430

## 2.29.2 Final Energy Consumption Table

### Final Energy Consumption Table in 2012

	Australia	Brunei	Canada	Chile	China	Hong Kong	Indonesia	Japan	Korea
Total	78,805	968	207,406	24,954	1,552,458	6,837	127,168	311,582	166,103
Coal & Coal Products	2,783	-	2,613	192	597,464	0	17,240	33,310	9,265
Crude oil & Petroleum Products	41,324	666	96,327	12,589	437,282	2,418	77,432	160,230	84,734
Natural Gas	12,364	26	56,250	1,441	92,414	677	17,532	30,841	22,904
Electricity	18,002	276	43,165	5,351	354,460	3,704	14,963	84,702	41,401
Others	4,332	-	9,051	5,381	70,837	38	-	2,499	7,800
Industry	23,120	203	56,682	9,069	932,042	352	53,279	134,538	47,461
Coal & Coal Products	2,610	-	2,598	190	506,883	0	17,240	32,715	8,449
Crude oil & Petroleum Products	4,006	185	7,519	2,946	95,564	102	17,576	50,061	4,145
Natural Gas	6,941	-	25,926	625	37,799	26	13,288	16,104	9,292
Electricity	6,876	18	16,127	3,625	243,330	224	5,175	34,246	21,555
Others	2,686	-	6,511	1,683	48,465	-	-	1,412	4,020
Transport	31,158	451	60,800	7,461	202,742	2,175	44,625	78,169	30,277
Coal & Coal Products	148	-	-	-	3,168	-	-	-	-
Crude oil & Petroleum Products	30,185	451	57,961	7,391	178,442	2,110	44,597	76,340	28,935
Natural Gas	475	-	2,478	29	13,260	-	19	93	1,149
Electricity	350	-	361	41	7,872	65	9	1,737	194
Others	-	-	-	-	-	-	-	-	-
Agriculture	2,227	0	4,706	-	34,567	-	-	3,713	2,033
Coal & Coal Products	-	-	-	-	10,055	-	-	-	-
Crude oil & Petroleum Products	2,026	0	3,111	-	15,717	-	-	3,328	1,166
Natural Gas	3	-	807	-	60	-	-	-	5
Electricity	199	-	788	-	8,708	-	-	309	826
Others	-	-	0	-	27	-	-	76	36
Residential & Commercial	17,477	300	57,248	7,393	236,838	4,311	17,691	89,796	41,257
Coal & Coal Products	25	-	16	-	64,817	-	-	595	816
Crude oil & Petroleum Products	934	17	5,232	1,490	52,577	206	7,666	25,136	5,629
Natural Gas	4,295	26	23,571	532	31,729	651	247	14,644	12,457
Electricity	10,577	258	25,890	1,673	68,030	3,416	9,779	48,410	18,614
Others	1,645	-	2,540	3,698	19,686	38	-	1,011	3,741

### Final Energy Consumption Table in 2011

	Australia	Brunei	Canada	Chile	China	Hong Kong	Indonesia	Japan	Korea
Total	77,431	915	206,221	25,039	1,452,421	6,732	115,504	312,882	160,905
Coal & Coal Products	2,993	-	2,642	324	559,002	0	20,239	33,142	9,435
Crude oil & Petroleum Products	39,920	624	93,701	12,744	413,902	2,408	64,519	161,895	82,396
Natural Gas	13,007	27	56,162	1,970	82,394	672	16,996	30,046	21,576
Electricity	18,140	264	44,437	4,982	331,944	3,621	13,749	84,834	40,473
Others	3,371	-	9,279	5,019	65,179	30	-	2,966	7,025
Industry	22,643	179	58,349	9,521	876,017	352	51,691	136,754	47,355
Coal & Coal Products	2,843	-	2,624	321	469,286	0	20,239	32,578	8,597
Crude oil & Petroleum Products	3,450	160	7,313	3,235	97,567	102	9,971	51,954	5,191
Natural Gas	7,597	-	24,108	993	33,193	22	16,774	15,599	8,276
Electricity	7,031	19	17,510	3,305	231,001	228	4,706	34,785	21,160
Others	1,723	-	6,796	1,667	44,970	0	-	1,837	4,131
Transport	29,933	431	59,806	7,274	182,516	2,159	40,167	77,599	29,457
Coal & Coal Products	121	-	-	-	3,323	-	-	-	-
Crude oil & Petroleum Products	29,012	431	57,038	7,216	159,989	2,097	40,134	75,781	28,190
Natural Gas	461	-	2,437	17	11,908	-	25	91	1,074
Electricity	338	-	331	41	7,296	62	8	1,727	193
Others	-	-	-	-	-	-	-	-	-
Agriculture	2,251	-	4,773	-	33,800	-	-	3,665	1,928
Coal & Coal Products	-	-	-	-	10,031	-	-	-	-
Crude oil & Petroleum Products	2,060	-	3,236	-	14,984	-	-	3,283	1,173
Natural Gas	3	-	724	-	52	-	-	-	4
Electricity	189	-	812	-	8,711	-	-	306	723
Others	-	-	0	-	22	-	-	76	28
Residential & Commercial	17,422	288	59,319	7,155	221,854	4,221	16,527	89,352	40,306
Coal & Coal Products	28	-	19	-	64,790	-	-	564	838
Crude oil & Petroleum Products	919	17	5,542	1,654	48,920	209	7,296	25,364	6,170
Natural Gas	4,244	27	25,491	523	29,116	650	197	14,356	12,222
Electricity	10,583	244	25,784	1,626	61,259	3,331	9,035	48,016	18,210
Others	1,649	-	2,483	3,352	17,769	30	-	1,053	2,866

Notes: Primary Energy in Indonesia, Peru, Thailand and Viet Nam exclude non-commercial biomass.

Final Energy Consumption Table in 2012 (Continued)

	Malaysia	Mexico	New Zealand	Papua New Guinea	Peru	Philippines	Russia	Singapore	Chinese Taipei	Thailand	United States	Viet Nam	ktoe
	44,619	117,015	12,883	1,209	14,642	23,502	448,556	12,505	66,023	74,376	1,431,166	35,078	4,757,852
	1,744	1,746	567	-	574	1,897	13,251	-	6,921	6,643	20,118	9,678	726,006
	22,716	73,796	5,778	884	9,517	11,556	117,187	7,588	37,200	47,158	746,074	14,896	2,007,352
	10,147	14,445	1,928	-	1,427	1	128,064	1,256	2,661	6,703	296,580	1,438	699,099
	10,011	19,763	3,323	325	3,117	5,092	63,665	3,661	19,138	13,871	320,508	9,065	1,037,564
	-	7,265	1,287	-	7	4,956	126,390	-	103	0	47,886	-	287,832
	15,310	30,197	3,989	445	4,264	5,845	131,434	8,595	22,262	18,875	246,625	16,106	1,762,692
	1,744	1,746	442	-	572	1,784	9,081	-	6,921	6,643	19,216	8,299	627,134
	4,528	5,912	364	199	1,284	1,275	11,292	6,043	2,856	3,841	20,342	1,611	241,652
	4,530	10,324	907	-	759	-	34,076	1,095	1,441	2,659	101,926	1,438	269,156
	4,509	11,228	1,218	246	1,649	1,726	29,120	1,457	11,043	5,732	72,748	4,758	476,612
	-	986	1,057	-	-	1,060	47,863	-	-	-	32,393	-	148,138
	15,146	52,411	4,543	517	6,873	8,108	93,630	1,773	11,789	22,552	597,390	10,701	1,283,290
	-	-	-	-	-	-	-	-	-	-	-	-	3,316
	14,835	52,297	4,537	517	6,314	8,097	58,694	1,545	11,683	20,062	579,191	10,701	1,194,885
	291	16	1	-	558	1	27,020	22	-	2,480	17,610	-	65,503
	21	97	5	-	0	10	7,916	206	106	9	588	-	19,586
	-	-	-	-	-	-	-	-	-	-	-	-	-
	967	3,984	617	-	108	146	10,349	-	157	3,824	18,899	617	86,916
	-	-	83	-	2	-	58	-	-	-	-	18	10,216
	937	3,053	336	-	42	28	3,088	-	3	3,791	14,654	471	51,752
	-	-	34	-	-	-	606	-	-	-	1,191	-	2,706
	30	930	145	-	64	117	1,314	-	154	33	2,646	128	16,391
	-	-	19	-	0	0	5,283	-	-	-	409	-	5,851
	7,066	21,816	2,636	-	2,530	8,984	145,758	628	11,142	11,583	451,406	7,089	1,142,949
	-	-	42	-	-	-	4,110	-	-	-	902	1,361	72,682
	1,591	8,068	194	-	1,036	1,868	8,462	-	2,064	3,590	41,055	1,549	168,366
	23	1,005	305	-	109	-	34,660	57	1,220	1	162,301	-	287,832
	5,451	6,464	1,885	-	1,378	3,223	25,290	571	7,756	7,992	232,066	4,179	482,900
	-	6,278	210	-	7	3,893	73,235	-	103	0	15,083	-	131,168

Final Energy Consumption Table in 2011 (Continued)

	Malaysia	Mexico	New Zealand	Papua New Guinea	Peru	Philippines	Russia	Singapore	Chinese Taipei	Thailand	United States	Viet Nam	ktoe
	43,402	116,125	12,709	1,411	14,513	22,961	458,614	12,446	65,827	63,841	1,484,531	34,382	4,688,813
	1,759	1,772	556	-	557	1,838	15,669	-	6,944	7,267	21,465	10,095	695,702
	23,943	73,944	5,825	1,099	9,609	11,296	116,258	8,766	37,225	37,400	773,140	15,297	1,985,911
	8,465	13,650	1,702	-	1,390	1	137,991	123	2,378	6,414	311,685	849	707,497
	9,236	19,429	3,366	312	2,949	4,824	62,679	3,556	19,178	12,759	324,822	8,142	1,013,696
	-	7,330	1,261	-	6	5,001	126,018	-	102	-	53,418	-	286,007
	13,368	29,240	3,982	722	4,308	5,849	128,413	8,478	22,564	18,070	261,335	15,585	1,714,775
	1,759	1,772	446	-	556	1,838	11,633	-	6,944	7,267	20,165	8,559	597,429
	3,289	5,900	331	488	1,365	1,318	10,184	6,994	3,413	2,908	30,459	1,869	247,459
	4,274	9,896	897	-	828	-	31,223	74	1,218	2,469	100,146	849	258,436
	4,045	10,671	1,277	235	1,560	1,663	28,622	1,410	10,989	5,425	73,234	4,308	463,184
	-	1,002	1,031	-	-	1,030	46,751	-	-	-	37,331	-	148,267
	17,065	52,055	4,580	438	6,617	7,789	98,421	1,523	12,025	21,599	589,413	10,818	1,251,684
	-	-	1	-	-	-	-	-	-	-	-	-	3,445
	16,777	51,945	4,573	438	6,219	7,778	59,346	1,523	11,921	19,536	572,211	10,818	1,162,972
	270	13	1	-	397	1	31,305	-	-	2,055	16,637	-	66,693
	18	96	5	-	0	10	7,771	-	103	9	564	-	18,575
	-	-	-	-	-	-	-	-	-	-	-	-	-
	916	3,835	582	-	158	124	11,113	5	158	3,720	18,950	624	86,603
	-	-	62	-	2	-	64	-	-	-	-	20	10,179
	890	2,876	319	-	96	23	3,992	-	4	3,694	14,361	511	51,502
	-	-	36	-	-	-	526	-	-	-	1,308	-	2,652
	26	959	147	-	61	101	1,277	5	154	26	2,938	93	16,529
	-	-	18	-	0	-	5,254	-	-	-	343	-	5,741
	6,993	21,756	2,596	-	2,442	8,905	153,420	2,191	11,257	10,364	468,912	6,855	1,152,137
	-	-	46	-	-	-	3,967	-	-	-	1,300	1,516	73,067
	1,810	8,017	213	-	966	1,897	8,276	-	2,144	3,131	33,986	1,599	158,128
	38	937	243	-	165	-	42,189	50	1,160	2	181,309	-	312,919
	5,146	6,474	1,882	-	1,304	3,037	24,985	2,141	7,852	7,231	236,574	3,741	478,454
	-	6,328	213	-	6	3,971	74,004	-	102	-	15,745	-	129,570

### 2.29.3 Demand and Supply Table

#### Demand & Supply Table of Coal in 2011

	Australia	Brunei	Canada	Chile	China	Hong Kong	Indonesia	Japan	Korea
Indigenous Production	222,573	-	33,658	245	1,828,168	-	207,723	650	959
Import	-	-	6,293	5,432	92,919	7,891	25	106,262	79,200
Export	-184,069	-	-19,844	-	-8,238	-0	-160,331	-	-
Stock Change	9,689	-	97	-354	-36,928	-488	-637	257	-207
Primary Energy Supply	48,193	-	20,203	5,323	1,875,921	7,403	46,780	107,169	79,952
Main Activity Producer	-42,483	-	-17,628	-4,786	-828,347	-7,403	-26,530	-44,820	-48,087
Autoproducers	-	-	-1	-	-131,640	-	-	-10,628	-3,129
Coal Transformation	-3,601	-	-2,511	-464	-306,704	-	-	-36,692	-22,637
Refining	-	-	-	-	-4,824	-	-	-	-
Gas processing	-	-	-	-	-	-	-	-	-
Other Transformation	-	-	-	-	-	-	-	-	-
Final Energy Consumption	2,047	-	1,409	212	473,780	0	20,239	14,345	5,059

#### Demand & Supply Table of Crude Oil in 2011

	Australia	Brunei	Canada	Chile	China	Hong Kong	Indonesia	Japan	Korea
Indigenous Production	23,092	8,859	172,314	641	202,876	-	51,322	722	648
Import	25,955	11	34,512	9,269	253,779	-	14,808	178,607	127,905
Export	-16,469	-8,078	-119,864	-	-2,514	-	-20,726	-	-583
Stock Change	242	-68	885	64	-14,530	-	5,636	438	-13
Primary Energy Supply	32,820	723	87,847	9,973	439,610	-	51,040	179,766	127,958
Main Activity Producer	-	-	-	-	-113	-	-	-7,554	-
Autoproducers	-	-	-	-	-46	-	-	-	-
Coal Transformation	-	-	-	-	-	-	-	-	-
Refining	-34,025	-708	-93,522	-10,951	-432,502	-26	-50,058	-171,020	-134,553
Gas processing	-	-	802	-	-	-	-	-	-
Other Transformation	335	-	1,637	33	-	26	-	-	8,464
Final Energy Consumption	14	-	-	-	1,552	-	-	-	-

#### Demand & Supply Table of Natural Gas in 2011

	Australia	Brunei	Canada	Chile	China	Hong Kong	Indonesia	Japan	Korea
Indigenous Production	44,754	11,890	132,394	1,244	95,603	-	72,796	3,100	406
Import	5,611	-	25,969	3,327	29,230	2,547	-	92,188	41,902
Export	-23,337	-9,291	-76,858	-	-2,968	-	-35,778	-	-
Stock Change	-	22	2,092	-5	-	-	-	13	-724
Primary Energy Supply	27,028	2,621	83,597	4,566	121,866	2,547	37,018	95,301	41,584
Main Activity Producer	-8,323	-1,101	-10,439	-2,353	-19,459	-1,886	-8,414	-61,033	-19,457
Autoproducers	-2,474	-154	-3,172	-55	-4,212	-	-	-3,710	-580
Coal Transformation	-68	-	-	-	-	-	-	-	-
Refining	-	-	-	-	-	-	-	-	-
Gas processing	-255	13	-1,941	88	1,009	314	-5,589	1,155	506
Other Transformation	-	-	-849	-	-	-	-413	-	-
Final Energy Consumption	13,007	27	56,162	1,970	82,394	672	16,996	30,046	21,576

Demand &amp; Supply Table of Coal in 2011 (Continued)

Malaysia	Mexico	New Zealand	Papua New Guinea	Peru	Philippines	Russia	Singapore	Chinese Taipei	Thailand	United States	Viet Nam	Total
1,838	7,789	2,894	-	114	3,632	180,042	-	-	6,048	536,369	26,102	3,058,804
13,330	4,352	91	-	424	5,786	19,094	-	37,012	3,035	7,346	766	389,259
-141	-6	-1,535	-	-119	-1,444	-78,818	-	-	-3	-62,775	-9,611	-526,935
-372	-2,313	-13	-	380	-248	131	-	-22	-619	-2,191	-1,652	-35,491
<b>14,655</b>	<b>9,822</b>	<b>1,436</b>	<b>-</b>	<b>799</b>	<b>7,726</b>	<b>120,449</b>	<b>-</b>	<b>36,990</b>	<b>8,461</b>	<b>478,750</b>	<b>15,605</b>	<b>2,885,636</b>
-13,013	-8,106	-375	-	-197	-5,785	-50,851	-	-19,800	-6,333	-432,849	-5,510	-1,562,904
-	-38	-7	-	-93	-	-16,950	-	-5,383	-416	-2,922	-	-171,206
-	-2,014	-412	-	-	-	-39,214	-	-5,394	-	-15,087	-	-434,731
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-1,932	-	-6,756
-	-	-	-	-	-	-	-	-	-	-	-	-
<b>1,759</b>	<b>130</b>	<b>521</b>	<b>-</b>	<b>557</b>	<b>1,838</b>	<b>5,644</b>	<b>-</b>	<b>5,406</b>	<b>1,788</b>	<b>19,013</b>	<b>10,095</b>	<b>563,843</b>

Demand &amp; Supply Table of Crude Oil in 2011 (Continued)

Malaysia	Mexico	New Zealand	Papua New Guinea	Peru	Philippines	Russia	Singapore	Chinese Taipei	Thailand	United States	Viet Nam	Total
30,963	153,330	2,382	890	6,740	313	514,868	-	10	17,910	360,874	15,959	1,564,712
9,322	367	5,370	982	4,640	9,124	468	41,468	41,908	41,814	531,317	-	1,331,626
-11,524	-75,525	-2,144	-886	-803	-329	-248,815	-20	-	-1,808	-12,810	-8,536	-531,436
-1,693	497	54	-13	-72	-88	511	-	730	1,171	5,019	-1,007	-2,240
<b>27,068</b>	<b>78,669</b>	<b>5,662</b>	<b>973</b>	<b>10,505</b>	<b>9,019</b>	<b>267,033</b>	<b>41,448</b>	<b>42,648</b>	<b>59,086</b>	<b>884,400</b>	<b>6,415</b>	<b>2,362,662</b>
-	-	-	-	-	-	-	-	-	-	-	-	-7,667
-	-	-	-	-	-	-792	-	-	-	-	-	-838
-	-	-	-	-	-	-	-	-	-	-	-	-
-24,798	-70,862	-5,564	-966	-9,874	-9,277	-261,286	-41,448	-42,627	-47,947	-850,677	-6,415	-2,299,106
-	-	-	-	-	-	-	-	-	-	-	-	802
21	213	6	-	220	90	-	-	-	886	25,900	-	37,832
-	-	-	4	-	-	97	-	-	6,273	1,642	-	9,583

Demand &amp; Supply Table of Natural Gas in 2011 (Continued)

Malaysia	Mexico	New Zealand	Papua New Guinea	Peru	Philippines	Russia	Singapore	Chinese Taipei	Thailand	United States	Viet Nam	Total
52,381	41,800	3,481	128	11,488	3,293	552,886	-	264	31,093	531,059	7,560	1,597,619
6,938	14,872	-	-	-	-	6,553	6,605	15,260	9,691	80,618	-	341,311
-27,838	-209	-	-	-5,184	-	-165,316	-	-	-	-34,621	-	-381,401
-	-226	-71	-	-	-	1,868	-	8	-	-8,292	-	-5,313
<b>31,481</b>	<b>56,236</b>	<b>3,411</b>	<b>128</b>	<b>6,304</b>	<b>3,293</b>	<b>395,990</b>	<b>6,605</b>	<b>15,532</b>	<b>40,784</b>	<b>568,764</b>	<b>7,560</b>	<b>1,552,216</b>
-10,912	-23,813	-1,481	-	-3,323	-3,137	-149,575	-6,605	-11,202	-19,531	-175,396	-6,711	-544,150
-1,711	-3,251	-29	-123	-176	-	-87,303	-	-92	-3,534	-14,381	-	-124,956
-	-	-0	-	-	-	-	-	-	-	-	-	-68
-	-	-	-	-	-	-	-	-	-	-	-	-
-8,699	666	-	-	-	-	-	113	-665	-0	1,133	-	-12,152
-	-	-	-	-	-	-1,729	-	-	-	-	-	-2,991
<b>8,465</b>	<b>13,650</b>	<b>1,702</b>	<b>-</b>	<b>1,390</b>	<b>1</b>	<b>137,991</b>	<b>123</b>	<b>2,378</b>	<b>6,414</b>	<b>311,685</b>	<b>849</b>	<b>707,497</b>

**Demand & Supply Table of Coal in 2012**

	Australia	Brunei	Canada	Chile	China	Hong Kong	Indonesia	Japan	Korea
Indigenous Production	239,898	-	33,541	295	1,869,264	-	226,909	675	932
Import	-	-	5,403	5,912	145,914	7,779	46	112,229	75,318
Export	-194,620	-	-20,513	-	-5,193	-0	-178,782	-	-
Stock Change	1,957	-	80	-113	-65,233	-491	128	-562	59
<b>Primary Energy Supply</b>	<b>47,235</b>	-	<b>18,509</b>	<b>6,094</b>	<b>1,944,753</b>	<b>7,288</b>	<b>48,300</b>	<b>112,341</b>	<b>76,309</b>
Main Activity Producer	-42,156	-	-14,393	-5,671	-848,015	-7,288	-31,056	-48,982	-47,148
Autoproducers	-	-	-1	-	-138,795	-	-	-10,938	-3,114
Coal Transformation	-3,221	-	-2,505	-457	-313,770	-	-21	-35,887	-22,377
Refining	-	-	-	-	-4,378	-	-	-	-
Gas processing	-	-	-	-	-	-	-	-	-
Other Transformation	-	-	-	-	-	-	-	-	-
<b>Final Energy Consumption</b>	<b>1,981</b>	-	<b>1,412</b>	<b>178</b>	<b>510,084</b>	<b>0</b>	<b>17,223</b>	<b>14,654</b>	<b>4,495</b>

**Demand & Supply Table of Crude Oil in 2012**

	Australia	Brunei	Canada	Chile	China	Hong Kong	Indonesia	Japan	Korea
Indigenous Production	23,007	8,448	185,582	531	207,478	-	50,330	689	658
Import	24,086	8	36,541	8,850	271,027	-	14,672	183,458	131,062
Export	-14,625	-7,896	-128,180	-	-2,432	-	-17,633	-	-356
Stock Change	289	-31	640	125	-9,226	-	1,833	128	-928
<b>Primary Energy Supply</b>	<b>32,758</b>	<b>530</b>	<b>94,583</b>	<b>9,507</b>	<b>466,847</b>	<b>-</b>	<b>49,201</b>	<b>184,275</b>	<b>130,436</b>
Main Activity Producer	-	-	-	-	-109	-	-	-12,879	-
Autoproducers	-	-	-	-	-14	-	-	-	-
Coal Transformation	-	-	-	-	-	-	-	-	-
Refining	-33,154	-513	-96,373	-10,677	-459,335	-5	-54,270	-171,005	-137,830
Gas processing	-	-	803	-	-	-	-	-	-
Other Transformation	324	-	1,763	11	-	5	5,990	-	8,420
<b>Final Energy Consumption</b>	<b>14</b>	-	-	-	<b>923</b>	-	-	-	-

**Demand & Supply Table of Natural Gas in 2012**

	Australia	Brunei	Canada	Chile	China	Hong Kong	Indonesia	Japan	Korea
Indigenous Production	47,302	11,568	129,952	1,030	99,759	-	69,435	2,767	391
Import	4,997	-	26,077	3,293	39,430	2,374	-	102,497	42,853
Export	-22,516	-8,899	-73,524	-	-2,691	-	-31,676	-	-
Stock Change	-	-12	1,003	-36	-	-	-	-16	1,746
<b>Primary Energy Supply</b>	<b>29,782</b>	<b>2,656</b>	<b>83,507</b>	<b>4,286</b>	<b>136,498</b>	<b>2,374</b>	<b>37,760</b>	<b>105,248</b>	<b>44,990</b>
Main Activity Producer	-8,484	-1,107	-11,113	-2,336	-19,942	-1,697	-10,511	-69,997	-21,543
Autoproducers	-2,602	-217	-3,197	-74	-4,583	-	-	-3,939	-676
Coal Transformation	-62	-	-	-	-	-	-	-	-
Refining	-	-	-	-	-	-	-	-	-
Gas processing	-255	-256	-2,312	19	493	333	-3,727	1,244	563
Other Transformation	-	-	-902	-	-	-	-	-	-
<b>Final Energy Consumption</b>	<b>12,364</b>	<b>26</b>	<b>56,250</b>	<b>1,441</b>	<b>92,414</b>	<b>677</b>	<b>17,532</b>	<b>30,841</b>	<b>22,904</b>

Demand &amp; Supply Table of Coal in 2012 (Continued)

Malaysia	Mexico	New Zealand	Papua New Guinea	Peru	Philippines	Russia	Singapore	Chinese Taipei	Thailand	United States	Viet Nam	Total
1,860	7,529	2,875	-	148	3,879	200,719	-	-	4,798	495,485	23,734	3,112,539
14,220	4,128	83	-	455	6,278	17,875	25	35,642	4,720	5,109	963	442,100
-232	-151	-1,576	-	-89	-1,675	-83,542	-0	-	-2	-73,147	-8,521	-568,042
-52	-2,322	135	-	333	834	-382	-	350	-1,208	-2,390	-392	-69,272
<b>15,796</b>	<b>9,183</b>	<b>1,517</b>	<b>-</b>	<b>847</b>	<b>9,316</b>	<b>134,669</b>	<b>25</b>	<b>35,993</b>	<b>8,308</b>	<b>425,057</b>	<b>15,785</b>	<b>2,917,325</b>
-14,138	-8,070	-665	-	-162	-6,300	-52,553	-	-19,816	-6,935	-379,729	-6,106	-1,539,184
-	-36	-7	-	-145	-	-17,580	-	-5,091	-	-2,440	-	-178,146
-	-1,949	-418	-	-	-	-41,026	-	-5,206	-	-14,258	-	-441,095
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-1,969	-	-6,347
-	-	-	-	-	-	-	-	-	-	-	-	-
<b>1,744</b>	<b>129</b>	<b>529</b>	<b>-</b>	<b>574</b>	<b>1,897</b>	<b>5,763</b>	<b>-</b>	<b>5,302</b>	<b>1,342</b>	<b>17,464</b>	<b>9,678</b>	<b>594,449</b>

Demand &amp; Supply Table of Crude Oil in 2012 (Continued)

Malaysia	Mexico	New Zealand	Papua New Guinea	Peru	Philippines	Russia	Singapore	Chinese Taipei	Thailand	United States	Viet Nam	Total
31,321	152,190	2,121	756	6,900	220	521,255	-	10	17,497	407,505	17,518	1,634,016
10,003	485	5,618	1,111	4,582	8,872	840	50,430	46,603	45,074	483,420	-	1,326,741
-12,086	-70,781	-1,838	-755	-788	-141	-241,151	-8	-	-2,423	-13,863	-9,643	-524,598
967	-286	151	-44	180	82	475	-	461	201	-4,586	-1,340	-10,906
<b>30,204</b>	<b>81,608</b>	<b>6,052</b>	<b>1,069</b>	<b>10,874</b>	<b>9,033</b>	<b>281,420</b>	<b>50,422</b>	<b>47,074</b>	<b>60,349</b>	<b>872,477</b>	<b>6,534</b>	<b>2,425,254</b>
-	-	-	-	-	-	-	-	-	-	-	-	-12,988
-	-	-	-	-	-	-796	-	-	-	-	-	-810
-	-	-	-	-	-	-	-	-	-	-	-	-
-27,749	-70,990	-5,799	-1,063	-9,754	-8,402	-275,606	-50,430	-47,354	-50,530	-845,260	-6,534	-2,362,632
-	-	-	-	-	-	-	-	-	-	-	-	803
99	225	6	-	216	122	-	-	-	1,153	27,212	-	45,545
-	-	-	-	-	-	85	-	-	6,670	2,175	-	9,867

Demand &amp; Supply Table of Natural Gas in 2012 (Continued)

Malaysia	Mexico	New Zealand	Papua New Guinea	Peru	Philippines	Russia	Singapore	Chinese Taipei	Thailand	United States	Viet Nam	Total
51,157	40,357	3,799	137	11,992	3,159	540,793	-	354	35,757	558,941	8,253	1,616,904
7,819	18,615	-	-	-	-	6,606	9,158	15,935	9,901	72,715	-	362,270
-26,755	-68	-	-	-5,167	-	-158,822	-0	-	-	-37,093	-	-367,211
-	-417	42	-	-	-	-1,459	-	108	-	1,141	-	2,099
<b>32,222</b>	<b>58,487</b>	<b>3,841</b>	<b>137</b>	<b>6,826</b>	<b>3,159</b>	<b>387,119</b>	<b>9,157</b>	<b>16,397</b>	<b>45,658</b>	<b>595,704</b>	<b>8,253</b>	<b>1,614,061</b>
-11,465	-22,863	-1,531	-	-3,728	-3,015	-153,018	-7,110	-11,542	-24,164	-211,211	-6,815	-603,191
-1,723	-3,415	-37	-123	-201	-	-88,318	-375	-81	-	-16,196	-	-125,755
-	-	-0	-	-	-	-	-	-	-	-	-	-63
-	-	-	-	-	-	-	-	-	-	-	-	-
-7,756	569	-	-	-	-	-0	-1	-635	-	1,163	-	-10,558
-	-	-	-	-	-	-1,673	-	-	-	-	-	-2,574
<b>10,147</b>	<b>14,445</b>	<b>1,928</b>	<b>-</b>	<b>1,427</b>	<b>1</b>	<b>128,064</b>	<b>1,256</b>	<b>2,661</b>	<b>6,703</b>	<b>296,580</b>	<b>1,438</b>	<b>699,099</b>

## 2.29.4 Power Generation Table

### Power Generation Table in 2012

	Australia	Brunei	Canada	Chile	China	Hong Kong	Indonesia	Japan	Korea
Total	248,884	3,930	634,338	69,751	4,987,553	38,794	196,054	1,113,149	530,762
Thermal	224,910	3,929	138,198	44,330	3,892,814	38,750	173,689	941,527	372,452
Coal	171,239	-	63,678	25,337	3,775,760	38,750	95,325	333,164	239,347
Oil	4,069	38	6,984	6,144	24,379	-	40,082	217,696	21,168
Gas	49,602	3,891	67,536	12,849	92,675	-	38,282	390,668	111,937
Hydro	14,026	-	380,511	20,158	872,107	-	12,799	84,157	3,969
Nuclear	-	-	94,862	-	97,394	-	-	17,991	150,327
Geothermal	-	-	-	-	-	-	9,416	2,660	-
Others	9,948	2	20,767	5,263	125,238	45	149	66,814	4,014
Main Activity Producer	230,273	3,524	577,225	63,973	4,492,652	38,752	196,054	836,148	499,804
Thermal	209,537	3,522	122,184	43,429	3,397,913	38,750	173,689	747,520	342,880
Coal	170,814	-	63,676	25,337	3,293,017	38,750	95,325	242,415	218,050
Oil	762	38	5,058	5,386	22,474	-	40,082	145,850	15,742
Gas	37,961	3,485	53,450	12,706	82,422	-	38,282	359,255	109,088
Hydro	14,026	-	348,477	19,979	872,107	-	12,799	67,877	3,969
Nuclear	-	-	94,862	-	97,394	-	-	17,991	150,327
Geothermal	-	-	-	-	-	-	9,416	2,509	-
Others	6,710	2	11,702	565	125,238	2	149	251	2,628
Autoproducers	18,611	406	57,113	5,778	494,901	43	-	277,001	30,958
Thermal	15,373	406	16,014	901	494,901	-	-	194,008	29,572
Coal	425	-	2	-	482,743	-	-	90,749	21,297
Oil	3,307	-	1,926	758	1,905	-	-	71,846	5,426
Gas	11,641	406	14,086	143	10,253	-	-	31,412	2,849
Hydro	-	-	32,034	179	-	-	-	16,280	-
Nuclear	-	-	-	-	-	-	-	-	-
Geothermal	-	-	-	-	-	-	-	151	-
Others	3,238	-	9,065	4,698	-	43	-	66,563	1,386

### Power Generation Table in 2011

	Australia	Brunei	Canada	Chile	China	Hong Kong	Indonesia	Japan	Korea
Total	252,572	3,725	637,886	65,713	4,713,019	39,071	183,419	1,111,921	519,883
Thermal	227,052	3,723	149,044	39,693	3,806,136	39,025	161,425	796,331	356,866
Coal	173,291	-	77,999	19,619	3,705,050	39,025	81,000	308,079	224,518
Oil	4,103	37	6,638	6,355	11,936	-	41,050	146,623	16,631
Gas	49,658	3,686	64,407	13,719	89,150	-	39,375	341,628	115,717
Hydro	16,756	-	375,686	21,009	698,945	-	12,419	89,307	4,598
Nuclear	-	-	93,589	-	86,350	-	-	162,927	154,723
Geothermal	1	-	-	-	-	-	9,371	2,618	-
Others	8,763	2	19,567	5,011	121,588	46	203	60,738	3,696
Main Activity Producer	235,179	3,395	582,535	60,286	4,251,658	39,026	183,419	865,217	490,193
Thermal	16,756	-	345,171	20,953	698,945	-	12,419	72,639	4,598
Coal	172,910	-	77,998	19,619	3,253,658	39,025	81,000	226,321	203,967
Oil	385	37	4,727	5,533	11,154	-	41,050	85,416	11,465
Gas	38,280	3,356	50,547	13,670	79,963	-	39,375	315,250	113,147
Hydro	16,756	-	345,171	20,953	698,945	-	12,419	72,639	4,598
Nuclear	-	-	93,589	-	86,350	-	-	162,927	154,723
Geothermal	1	-	-	-	-	-	9,371	2,460	-
Others	6,847	2	10,503	511	121,588	2	203	204	2,293
Autoproducers	17,393	330	55,351	5,427	461,361	44	-	246,704	29,690
Thermal	15,477	330	15,772	871	461,361	-	-	169,344	28,287
Coal	381	-	1	-	451,392	-	-	81,758	20,551
Oil	3,718	-	1,911	822	781	-	-	61,207	5,166
Gas	11,378	330	13,860	49	9,187	-	-	26,378	2,570
Hydro	-	-	30,515	56	-	-	-	16,668	-
Nuclear	-	-	-	-	-	-	-	-	-
Geothermal	-	-	-	-	-	-	-	158	-
Others	1,916	-	9,064	4,500	-	44	-	60,534	1,403

Power Generation Table in 2012 (Continued)

													GW h
Malaysia	Mexico	New Zealand	Papua New Guinea	Peru	Philippines	Russia	Singapore	Chinese Taipei	Thailand	United States	Viet Nam	Total	
134,354	293,862	44,295	4,049	39,908	72,922	1,069,313	46,915	250,390	171,268	4,270,771	117,600	14,338,863	
123,239	240,916	12,461	2,632	17,866	52,160	722,366	43,207	194,686	144,931	2,941,052	64,289	10,390,404	
55,621	34,315	3,553	-	794	28,265	168,927	-	120,615	33,081	1,643,430	37,683	6,868,884	
6,625	55,679	3	2,057	1,420	4,254	28,062	6,564	7,064	2,222	33,070	438	468,017	
60,993	150,922	8,905	575	15,652	19,642	525,377	36,644	67,007	109,628	1,264,552	26,168	3,053,504	
9,254	31,855	22,894	995	21,354	10,252	165,898	-	8,609	8,641	278,511	52,805	1,998,795	
-	8,770	-	-	-	-	177,534	-	40,462	-	801,129	-	1,388,470	
-	5,817	6,194	422	-	10,250	477	-	-	1	18,135	-	53,372	
1,861	6,504	2,746	-	688	259	3,038	3,708	6,633	17,695	231,944	507	507,822	
128,200	261,703	42,932	975	37,350	72,922	1,002,132	45,199	215,302	171,268	4,096,787	117,600	13,130,775	
117,598	214,053	11,674	340	16,142	52,160	659,241	42,171	164,813	144,931	2,815,509	64,289	9,382,345	
55,621	33,861	2,911	-	486	28,265	161,027	-	93,631	33,081	1,624,104	37,683	6,218,053	
6,517	49,206	3	340	654	4,254	24,023	6,426	5,660	2,222	23,633	438	358,767	
55,460	130,986	8,760	-	15,002	19,642	474,191	35,745	65,522	109,628	1,167,772	26,168	2,805,525	
9,254	31,317	22,882	635	20,866	10,252	164,875	-	8,609	8,641	276,111	52,805	1,945,481	
-	8,770	-	-	-	-	177,534	-	40,462	-	801,129	-	1,388,470	
-	5,817	6,137	-	-	10,250	477	-	-	1	18,135	-	52,742	
1,348	1,746	2,239	-	342	259	5	3,028	1,418	17,695	185,903	507	361,737	
6,154	32,159	1,363	3,074	2,558	-	67,181	1,717	35,088	-	173,984	-	1,208,088	
5,641	26,863	787	2,292	1,724	-	63,125	1,036	29,873	-	125,543	-	1,008,059	
-	454	642	-	308	-	7,900	-	26,985	-	19,326	-	650,830	
108	6,473	-	1,717	766	-	4,039	138	1,404	-	9,437	-	109,250	
5,533	19,936	145	575	650	-	51,186	898	1,484	-	96,780	-	247,979	
-	538	12	360	488	-	1,023	-	-	-	2,400	-	53,314	
-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	57	422	-	-	-	-	-	-	-	-	630	
513	4,758	507	-	346	-	3,033	680	5,215	-	46,041	-	146,085	

Power Generation Table in 2011 (Continued)

													GW h
Malaysia	Mexico	New Zealand	Papua New Guinea	Peru	Philippines	Russia	Singapore	Chinese Taipei	Thailand	United States	Viet Nam	Total	
127,069	295,837	44,465	3,925	39,222	69,050	1,053,001	45,999	252,169	154,925	4,326,625	103,784	14,043,280	
117,440	238,784	10,608	2,539	16,960	49,463	710,912	45,366	196,380	130,116	2,960,191	62,526	10,120,579	
52,300	34,132	2,170	-	622	25,577	164,348	-	122,139	29,642	1,875,413	34,388	6,969,312	
9,413	48,371	2	1,964	2,350	3,295	27,362	10,562	8,979	2,050	39,524	2,078	389,323	
55,727	156,281	8,436	575	13,988	20,591	519,202	34,804	65,262	98,424	1,045,254	26,060	2,761,944	
8,060	36,266	25,114	987	21,587	9,440	165,844	-	6,902	8,164	321,733	40,931	1,863,748	
-	10,089	-	-	-	-	172,941	-	42,116	-	821,405	-	1,544,141	
-	6,507	6,120	400	-	9,942	522	-	-	1	17,892	-	53,375	
1,569	4,191	2,623	-	675	205	2,782	633	6,771	16,644	205,404	327	461,437	
121,932	266,359	43,189	960	36,277	69,050	988,893	45,999	214,785	138,369	4,162,056	103,784	12,902,562	
8,060	35,796	25,102	627	21,045	9,440	164,738	-	6,902	8,164	319,892	40,931	1,812,179	
52,300	33,468	1,580	-	622	25,577	153,309	-	93,560	29,642	1,854,473	34,388	6,353,416	
9,061	42,474	2	334	1,558	3,295	23,415	10,562	7,308	2,050	31,847	2,078	293,751	
50,942	137,668	8,329	-	12,951	20,591	473,963	34,804	63,404	98,424	955,272	26,060	2,535,995	
8,060	35,796	25,102	627	21,045	9,440	164,738	-	6,902	8,164	319,892	40,931	1,812,179	
-	10,089	-	-	-	-	172,941	-	42,116	-	821,405	-	1,544,141	
-	6,507	6,064	-	-	9,942	522	-	-	1	17,892	-	52,761	
1,569	357	2,112	-	101	205	5	633	1,495	88	161,275	327	310,318	
5,137	29,478	1,276	2,965	2,945	-	64,108	-	37,384	16,556	164,569	-	1,140,719	
5,137	25,174	697	2,205	1,829	-	60,225	-	32,108	-	118,599	-	937,417	
-	664	590	-	-	-	11,039	-	28,579	-	20,940	-	615,896	
352	5,897	-	1,630	792	-	3,947	-	1,672	-	7,677	-	95,572	
4,785	18,613	107	575	1,037	-	45,239	-	1,858	-	89,982	-	225,949	
-	470	12	360	542	-	1,106	-	-	-	1,841	-	51,570	
-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	56	400	-	-	-	-	-	-	-	-	614	
-	3,834	511	-	574	-	2,777	-	5,276	16,556	44,129	-	151,118	

## 2.29.5 Fuel Consumption Table for Power Generation

### Fuel Consumption Table for Power Generation in 2012

	Australia	Brunei	Canada	Chile	China	Hong Kong	Indonesia	Japan	Korea
Main Activity Producer	51,063	1,118	26,740	9,372	877,042	9,175	48,680	157,729	73,392
Coal	42,156	-	14,393	5,671	848,015	7,288	31,056	48,982	47,148
Coke	-	-	-	-	-	-	-	-	-
Coke Oven Gas	-	-	-	-	1,387	-	-	939	138
Blast Furnace Gas	-	-	-	-	-	-	-	3,046	622
Crude Oil & NGL	-	-	-	-	109	-	-	12,879	-
LPG	-	-	-	-	-	-	-	1,795	-
Refinery Gas	-	-	-	-	742	-	-	-	-
Naphtha	-	-	-	-	-	-	-	-	-
Diesel Oil	158	11	130	745	363	97	5,519	488	154
Fuel Oil	16	-	406	72	1,180	93	1,594	18,889	3,542
Natural Gas	8,484	1,107	11,113	2,336	19,942	1,697	10,511	69,997	21,543
Others	248	-	698	549	5,303	-	-	714	246
Autoproducers	3,825	217	5,899	4,217	170,491	13	-	36,692	9,904
Coal	-	-	1	-	138,795	-	-	10,938	3,114
Coke	-	-	-	-	-	-	-	-	-
Coke Oven Gas	-	-	-	-	6,930	-	-	507	342
Blast Furnace Gas	69	-	-	-	13,572	-	-	2,103	2,226
Crude Oil & NGL	-	-	-	-	14	-	-	-	-
LPG	-	-	-	-	1	-	-	157	-
Refinery Gas	-	-	314	-	1,533	-	-	1,562	-
Naphtha	-	-	-	-	-	-	-	2,063	1,892
Diesel Oil	515	-	112	474	24	-	-	1,955	-
Fuel Oil	120	-	71	139	1,124	-	-	5,477	-
Natural Gas	2,602	217	3,197	74	4,583	-	-	3,939	676
Others	520	-	2,205	3,531	3,916	13	-	7,991	1,655

### Fuel Consumption Table for Power Generation in 2011

	Australia	Brunei	Canada	Chile	China	Hong Kong	Indonesia	Japan	Korea
Main Activity Producer	51,221	1,111	29,325	8,466	861,205	9,325	45,020	130,386	71,544
Coal	42,483	-	17,628	4,786	828,347	7,403	26,530	44,820	48,087
Coke	-	-	-	-	-	-	-	-	-
Coke Oven Gas	-	-	-	-	1,265	-	-	1,000	347
Blast Furnace Gas	-	-	-	-	-	-	-	3,065	947
Crude Oil & NGL	-	-	-	-	113	-	-	7,552	-
LPG	-	-	-	-	-	-	-	786	-
Refinery Gas	-	-	-	-	790	-	-	-	-
Naphtha	-	-	-	-	-	-	-	-	-
Gas/Diesel Oil	67	10	132	883	400	13	7,480	296	81
Fuel Oil	5	-	442	83	1,344	24	2,523	11,079	2,383
Natural Gas	8,323	1,101	10,439	2,353	19,459	1,886	8,414	61,033	19,457
Others	343	-	683	362	9,486	-	73	754	241
Autoproducers	3,546	154	5,867	776	161,475	4	-	35,549	9,631
Coal	-	-	1	-	131,640	-	-	10,628	3,129
Coke	-	-	-	-	-	-	-	-	-
Coke Oven Gas	-	-	-	-	6,294	-	-	572	337
Blast Furnace Gas	73	-	-	-	12,788	-	-	2,519	2,295
Crude Oil & NGL	-	-	-	-	46	-	-	-	-
LPG	-	-	-	-	7	-	-	187	-
Refinery Gas	-	-	312	-	1,506	-	-	1,443	-
Naphtha	-	-	-	-	-	-	-	1,999	1,763
Gas/Diesel Oil	539	-	86	90	24	-	-	1,644	1
Fuel Oil	131	-	85	36	1,103	-	-	5,423	-
Natural Gas	2,474	154	3,172	55	4,212	-	-	3,710	580
Others	329	-	2,210	596	3,856	4	-	7,423	1,525

Fuel Consumption Table for Power Generation in 2012 (Continued)

Malaysia	Mexico	New Zealand	Papua New Guinea	Peru	Philippines	Russia	Singapore	Chinese Taipei	Thailand	United States	Viet Nam	Total	
26,803	41,407	2,241	99	4,154	10,537	212,747	8,730	32,738	30,162	610,464	13,047	2,247,438	
14,128	8,070	665	-	211	6,300	52,553	-	19,816	6,998	379,729	6,106	1,539,287	
-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	16	-	2,481	
-	-	-	-	-	-	-	-	-	-	175	-	3,843	
-	-	-	-	-	-	-	-	-	-	-	-	12,988	
-	-	-	-	-	-	-	-	-	-	-	-	1,795	
-	-	-	-	-	-	-	-	-	-	-	-	742	
-	-	-	-	-	-	-	-	-	-	-	-	-	
810	501	1	51	98	194	-	53	45	44	1,237	31	10,728	
549	9,973	-	47	405	778	7,176	1,952	1,335	490	1,759	95	50,353	
11,315	22,863	1,531	-	3,405	3,180	153,018	6,605	11,542	22,628	211,211	6,815	600,844	
-	-	43	-	35	86	-	120	-	1	16,337	-	24,379	
1,726	6,220	331	623	800	-	122,604	-	8,313	5,179	28,069	35	405,158	
-	36	7	-	-	-	17,580	-	5,091	304	2,440	-	178,305	
-	-	-	-	-	-	5	-	-	-	-	-	5	
-	11	40	-	-	-	1,586	-	174	-	119	-	9,708	
-	77	132	-	-	-	1,231	-	408	-	854	-	20,670	
-	-	-	-	-	-	796	-	-	-	-	-	810	
-	-	-	-	-	-	33	-	-	-	-	-	191	
-	-	-	-	145	-	701	-	14	-	-	-	4,268	
-	-	-	-	-	-	-	-	-	-	-	-	3,956	
24	120	-	237	87	-	2,010	-	-	-	-	39	-	5,595
-	326	-	263	115	-	5,915	-	440	4	67	-	14,062	
1,701	3,415	37	123	256	-	88,318	-	81	1,918	16,196	-	127,332	
-	2,236	116	-	197	-	4,430	-	2,105	2,952	8,355	35	40,257	

Fuel Consumption Table for Power Generation in 2011 (Continued)

Malaysia	Mexico	New Zealand	Papua New Guinea	Peru	Philippines	Russia	Singapore	Chinese Taipei	Thailand	United States	Viet Nam	Total
22,580	41,845	1,897	104	4,154	9,939	207,421	8,730	32,755	30,426	629,325	12,816	2,209,594
11,119	8,106	375	-	211	5,785	50,851	-	19,800	6,912	432,849	5,510	1,561,603
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	50	-	2,662
-	-	-	-	-	-	-	-	-	-	163	-	4,175
-	-	-	-	-	-	-	-	-	-	-	-	7,665
-	-	-	-	-	-	-	-	-	-	-	-	786
-	-	-	-	-	-	-	-	-	-	-	-	790
-	-	-	-	-	-	-	-	-	-	-	-	-
976	384	-	51	98	181	-	53	48	17	1,503	173	12,848
1,102	9,542	-	53	405	615	6,994	1,952	1,706	433	2,135	421	43,239
9,383	23,813	1,481	-	3,405	3,296	149,575	6,605	11,202	23,064	175,396	6,711	546,396
-	-	42	-	35	62	-	120	-	-	17,230	-	29,431
1,578	5,758	312	617	800	-	123,593	-	8,735	5,875	25,344	22	389,636
-	38	7	-	-	-	16,950	-	5,383	241	2,922	-	170,939
-	-	-	-	-	-	6	-	-	-	-	-	6
-	15	39	-	-	-	1,676	-	186	-	103	-	9,222
-	111	118	-	-	-	3,537	-	476	-	803	-	22,719
-	-	-	-	-	-	792	-	-	-	-	-	838
-	-	-	-	-	-	35	-	-	-	-	-	229
-	-	-	-	145	-	915	-	15	-	-	-	4,336
-	-	-	-	-	-	-	-	-	-	-	-	3,762
125	135	-	211	87	-	2,034	-	-	-	37	-	5,014
-	236	-	284	115	-	5,852	-	468	7	57	-	13,796
1,453	3,251	29	123	256	-	87,303	-	92	3,534	14,381	-	124,778
-	1,971	119	-	197	-	4,494	-	2,115	2,093	7,041	22	33,997

## 2.29.6 Stock Table by Energy Resources

## Stock Table by Energy Resource in 2012

	Australia	Brunei	Canada	Chile	China	Hong Kong	Indonesia	Japan	Korea
<b>Opening Stocks</b>									
Hard Coal	-	-	-	-	-	-	0	-562	-
Coking Coal	-	-	-	-	-	-	-	515	-
Other bituminous coal	-	-	-	-	-	-	-	-1,078	-
Subbituminous Coal	-	-	-	-	-	-	0	-	-
Anthracite	-	-	-	-	-	-	-	-	-
Lignite	-	-	-	-	-	-	-	-	-
Peat	-	-	-	-	-	-	-	-	-
Coke	-	-	-	-	1,478	-	-	-	-
BKB/PB	-	-	-	-	8	-	-	-	-
Crude Oil & NGL	2,153	234	7,665	471	-	-	-	13,547	14,963
Gasoline	838	8	2,375	138	-	-	-	1,449	510
Naphtha	291	10	291	36	32	163	-	564	353
Jet Fuel	-	-	1	-	-	-	-	-	-
Kerosene	860	14	2,520	234	91	-	-	2,318	1,908
Gas/Diesel Oil	93	-	420	113	-	211	-	1,538	1,677
Fuel Oil	166	0	168	90	-	2	-	2,478	1,168
LPG	-	-	-	-	-	-	-	-	-
Other Petroleum Products	526	2	1,462	297	3	-	-	349	295
Natural Gas	-	-	1,003	-36	-	-	-	-16	1,746
Others	-	-	-	-	-	-	-	-	-
Total Opening Stocks	4,928	268	15,905	1,343	1,613	377	0	21,664	22,620
<b>Closing Stocks</b>									
Hard Coal	-	-	-	-	50,215	491	-128	-	-
Coking Coal	-	-	-	-	4,440	-	-	-	-
Other bituminous coal	-	-	-	-	45,775	491	-	-	-
Subbituminous Coal	-	-	-	-	-	-	-128	-	-
Anthracite	-	-	-	-	12,930	-	-	-	-
Lignite	-	-	-	-	2,088	-	-	-	-
Peat	-	-	-	-	-	-	-	-	-
Coke	-	-	-	-	-	-	-	-	-
BKB/PB	-	-	-	-	-	-	-	-	-
Crude Oil & NGL	1,985	273	7,503	351	9,226	-	-1,833	13,419	15,920
Gasoline	829	9	2,273	108	5,225	1	-287	1,481	639
Naphtha	282	7	353	60	134	-	-141	497	430
Jet Fuel	-	-	-	-	134	-	-	-	-
Kerosene	938	10	2,605	339	-	175	-2,009	2,168	1,593
Gas/Diesel Oil	74	-	401	115	631	-	-652	1,759	1,594
Fuel Oil	219	0	290	71	36	-	43	2,701	870
LPG	-	-	-	-	-	-	-	-	-
Other Petroleum Products	591	2	1,318	133	4,887	-	-	342	455
Natural Gas	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-
Total Closing Stocks	4,918	301	14,742	1,177	85,505	666	-5,007	22,366	21,503
<b>Stock Change</b>									
Hard Coal	-	-	-	-	-	-	-	-	-
Coking Coal	-	-	-	-	-	-	-	-	-
Other bituminous coal	-	-	-	-	-	-	-	-	-
Subbituminous Coal	-	-	-	-	-	-	-	-	-
Anthracite	-	-	-	-	-	-	-	-	-
Lignite	-	-	-	-	-	-	-	-	-
Peat	-	-	-	-	-	-	-	-	-
Coke	-	-	-	-	-	-	-	-	-
BKB/PB	-	-	-	-	-	-	-	-	-
Crude Oil & NGL	-	-	-	-	-	-	-	-	-
Gasoline	-	-	-	-	-	-	-	-	-
Naphtha	-3,183	-85	-1,004	-712	-2,642	-5,589	-	-6,415	-4,050
Jet Fuel	-	-	-	-	-	-	-	-	-
Kerosene	-	-	-	-	-	-	-	-	-
Gas/Diesel Oil	-	-	-	-	-	-	-	-	-
Fuel Oil	-	-	-	-	-	-	-	-	-
LPG	-	-	-	-	-	-	-	-	-
Other Petroleum Products	-	-	-	-	-	-	-	-	-
Natural Gas	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-
Total Stock Change	-3,183	-85	-1,004	-712	-2,642	-5,589	-	-6,415	-4,050

Stock Table by Energy Resource in 2012 (Continued)

Malaysia	Mexico	New Zealand	Papua New Guinea	Peru	Philippines	Russia	Singapore	Chinese Taipei	Thailand	United States	Viet Nam	ktoe
-	-	-	-	333	834	-	-	3,232	-	-	-	3,837
-	-	-	-	-	-	-	-	310	-	-	-	826
-	-	-	-	333	-	-	-	2,281	-	-	-	1,536
-	-	-	-	-	834	-	-	641	-	-	-	1,475
-	-	-	-	-	-	-	-	8	-	-	-	8
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	26	-	-	-	-	-	-	-	1,505
-	-	-	-	-	-	-	-	-	-	-	-	8
-	2,679	453	49	180	61	496	-	3,745	-	130,684	-	177,380
-	1,257	263	5	248	-	-	-	970	-	23,766	-	31,828
-	164	73	6	418	0	-	-	-	-	4,544	-	6,945
-	-	-	-	-	-	-	-	-	-	-	-	1
-	1,092	308	12	-	-	-	-	1,082	-	19,976	-	30,414
-	476	83	14	652	19	286	-	317	-	7,387	-	13,285
-	166	2	1	-	2	-	-	346	-	7,117	-	11,709
-	-	-	-	-	-	-	-	-	-	-	-	-
-	256	53	-	-	11	-	-	-	-	6,485	-	9,739
-	-417	42	-	-	-	-1,459	-	-	-	1,141	-	2,003
-	-	-	-	-	-	-	-	-	-	-	-	-
-	5,673	1,278	87	1,857	927	-677	-	9,700	-	201,099	-	288,662
-	-	-	-	-	-	-	-	2,871	1,591	-	-	55,040
-	-	-	-	-	-	-	-	148	-	-	-	4,588
-	-	-	-	-	-	-	-	1,905	1,591	-	-	49,763
-	-	-	-	-	-	-	-	817	-	-	-	690
-	-	-	-	-	-	-	-	19	-125	-	-	12,825
-	-	-	-	-	-	-	-	-	-258	-	-	1,829
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-114	-	-	-114
-	-	-	-	-	-	-	-	-	880	-	-	880
-	2,965	296	92	-	-	-	-	3,284	-230	133,644	-	186,893
-	1,257	260	-	-	19	194	-	1,016	156	24,609	-	37,788
-	160	105	4	-	-	-	-	-	15	4,438	-	6,343
-	-	-	-	-	-	-	-	-	-	-	-	134
-	1,044	304	21	10	98	112	-	1,211	-699	17,787	-	25,706
-	697	64	3	-	-	-	-	355	269	6,828	-	12,139
-	168	6	1	23	-	327	-	359	1,404	6,895	-	13,413
-	-	-	-	-	-	-	-	-	-	-	-	-
-	860	50	-	-	6	-	-	-	-1,493	6,961	-	14,112
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	9,115	1,395	201,161	-	366,988
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-2,017	-2,889	-824	-	-	-1,082	-6,605	-6,847	-2,075	-3,937	-21,342	-	-71,297
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-2,017	-2,889	-824	-	-	-1,082	-6,605	-6,847	-2,075	-3,937	-21,342	-	-71,297

## 2.29.7 Power Generation Capacity Table

### Power Generation Capacity - Total

	1990	2000	2005	2008	2009	2010	2011	2012
Australia	38,451	46,204	50,142	54,350	57,059	59,857	61,116	63,222
Brunei Darussalam	334	763	759	732	879	888	894	724
Canada	104,141	111,324	123,334	127,177	131,678	132,375	132,795	134,203
Chile	5,099	9,894	12,586	14,019	15,731	16,231	17,549	18,153
China	137,891	319,321	509,410	792,530	873,970	962,180	1,064,550	1,144,750
Hong Kong, China	8,342	11,568	11,804	12,624	12,644	12,624	12,624	-
Indonesia	9,275	20,762	27,664	30,298	30,298	32,872	39,899	39,280
Japan	194,730	258,838	274,558	275,588	277,511	281,082	282,284	236,683
Republic of Korea	21,021	53,693	66,537	79,859	80,610	84,700	84,654	94,189
Malaysia	5,582	13,762	23,626	23,029	26,637	24,817	25,599	29,143
Mexico	27,371	40,345	52,497	58,304	59,693	62,290	61,600	62,136
New Zealand	7,176	8,388	8,851	9,367	9,395	9,630	9,740	9,494
Papua New Guinea	490	543	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Peru	4,143	6,070	6,201	7,158	7,987	8,000	-	9,699
Philippines	6,869	13,185	15,619	13,048	13,319	13,319	16,162	17,025
Russia	213,400	212,771	219,043	225,238	225,499	222,935	222,984	232,685
Singapore	3,667	6,610	10,106	10,606	10,606	10,606	-	11,825
Chinese Taipei	16,883	27,385	43,146	46,382	47,976	48,882	48,750	48,711
Thailand	8,725	20,802	26,269	30,508	30,508	31,486	31,486	33,178
United States of America	733,589	812,630	978,539	1,011,254	1,026,869	1,041,000	1,055,278	1,067,878
Viet Nam	2,537	6,192	11,340	N.A.	N.A.	N.A.	N.A.	N.A.

### Power Generation Capacity - Thermal Power

MW

	1990	2000	2005	2008	2009	2010	2011	2012
Australia	30,130	36,945	40,815	44,269	46,628	49,028	49,626	50,459
Brunei Darussalam	334	763	759	732	879	888	894	723
Canada	31,201	33,183	37,297	37,036	40,929	40,424	38,944	38,949
Chile	2,421	5,464	7,360	8,566	10,091	10,576	11,419	11,957
China	101,845	237,540	384,130	601,320	652,050	706,630	768,520	819,170
Hong Kong, China	8,342	11,568	11,804	12,624	12,644	12,624	12,624	-
Indonesia	7,040	17,386	23,643	25,845	25,845	27,973	34,743	-
Japan	124,984	166,648	177,223	176,412	179,324	181,736	182,382	185,309
Republic of Korea	11,065	36,817	45,365	55,977	56,482	60,389	58,303	65,538
Malaysia	4,185	11,708	21,242	20,745	23,134	22,488	22,515	24,994
Mexico	18,155	28,441	39,540	44,383	45,320	47,736	47,070	46,707
New Zealand	2,296	2,741	2,883	3,061	2,922	3,118	3,118	2,868
Papua New Guinea	335	319	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Peru	1,744	3,210	2,938	2,244	2,641	4,682	-	5,828
Philippines	3,661	8,953	10,393	8,676	9,041	9,041	10,772	11,504
Russia	149,700	146,670	149,915	154,778	153,800	151,114	151,114	157,845
Singapore	3,667	6,610	10,106	10,606	10,606	10,606	-	-
Chinese Taipei	9,177	17,819	32,756	35,650	37,177	37,924	37,632	37,063
Thailand	6,451	17,865	20,575	24,547	24,547	25,109	25,201	28,859
United States of America	536,667	610,124	767,316	781,791	786,050	793,551	798,833	793,352
Viet Nam	1,362	2,900	4,382	N.A.	N.A.	N.A.	N.A.	N.A.

**Power Generation Capacity - Hydro Power**

	<b>1990</b>	<b>2000</b>	<b>2005</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Australia	8,321	9,201	8,535	8,554	8,619	8,773	8,788	8,790
Brunei Darussalam	-	-	-	-	-	-	-	-
Canada	59,381	67,407	71,978	74,407	74,687	75,078	75,404	75,573
Chile	2,678	4,430	5,224	5,433	5,452	5,467	5,946	5,992
China	36,046	79,352	116,520	171,520	196,790	213,400	233,390	248,900
Hong Kong, China	-	-	-	-	-	-	-	-
Indonesia	2,095	3,015	3,221	3,510	3,510	3,710	3,944	4,146
Japan	37,831	46,325	47,348	47,637	47,949	47,966	48,111	48,418
Republic of Korea	2,340	3,149	3,883	5,505	5,515	5,525	6,418	6,447
Malaysia	1,397	2,054	2,091	2,120	2,107	2,107	2,856	3,317
Mexico	7,838	9,653	10,598	11,471	11,543	11,626	11,646	11,650
New Zealand	4,619	5,193	5,346	5,371	5,325	5,250	5,250	5,254
Papua New Guinea	155	224	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Peru	2,400	2,860	3,207	3,242	3,277	3,318	-	3,484
Philippines	2,153	2,301	3,222	2,950	2,914	2,914	3,491	3,521
Russia	43,400	44,345	45,797	47,066	47,308	47,430	47,479	49,445
Singapore	-	-	-	-	-	-	-	-
Chinese Taipei	1,562	4,422	4,512	4,540	4,539	4,579	4,643	4,683
Thailand	2,274	2,936	3,476	3,481	3,481	3,488	3,488	3,508
United States of America	92,360	98,881	98,887	99,788	100,678	101,023	100,944	101,106
Viet Nam	1,176	3,292	4,155	N.A.	N.A.	N.A.	N.A.	N.A.

**Power Generation Capacity - Nuclear Power**

MW

	<b>1990</b>	<b>2000</b>	<b>2005</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Australia	-	-	-	-	-	-	-	-
Brunei Darussalam	-	-	-	-	-	-	-	-
Canada	13,538	10,615	13,345	13,345	12,665	12,665	12,665	12,665
Chile	-	-	-	-	-	-	-	-
China	-	2,100	6,840	8,850	9,000	10,820	12,570	12,570
Hong Kong, China	-	-	-	-	-	-	-	-
Indonesia	-	-	-	-	-	-	-	-
Japan	31,645	45,248	48,222	49,467	47,935	48,847	48,960	-
Republic of Korea	7,616	13,716	17,176	17,716	17,716	17,716	18,716	20,716
Malaysia	-	-	-	-	-	-	-	-
Mexico	675	1,365	1,365	1,365	1,365	1,365	1,365	1,610
New Zealand	-	-	-	-	-	-	-	-
Papua New Guinea	-	-	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Peru	-	-	-	-	-	-	-	-
Philippines	-	-	-	-	-	-	-	-
Russia	20,300	21,730	23,242	23,304	24,300	24,300	24,300	25,304
Singapore	-	-	-	-	-	-	-	-
Chinese Taipei	5,144	5,144	5,144	5,144	5,144	5,144	5,144	5,144
Thailand	-	-	-	-	-	-	-	-
United States of America	99,643	97,860	99,988	100,755	101,004	101,167	101,419	101,885
Viet Nam	-	-	-	N.A.	N.A.	N.A.	N.A.	N.A.

**Power Generation Capacity - Others**

	<b>1990</b>	<b>2000</b>	<b>2005</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Australia	-	58	792	1,527	1,812	2,056	2,702	3,973
Brunei Darussalam	-	-	-	-	-	-	-	1
Canada	21	119	714	2,389	3,397	4,208	5,782	7,016
Chile	-	-	2	20	188	188	184	204
People's Republic of China	-	329	1,920	10,840	16,130	31,330	50,070	64,110
Hong Kong, China	-	-	-	-	-	-	-	-
Indonesia	140	360	800	942	942	1,190	1,211	35,133
Japan	270	617	1,765	2,072	2,303	2,533	2,831	2,956
Republic of Korea	-	11	113	661	897	1,070	1,217	1,488
Malaysia	-	-	293	164	1,396	221	228	832
Mexico	703	886	994	1,085	1,465	1,563	1,519	2,169
New Zealand	261	454	622	935	1,148	1,262	1,372	1,372
Papua New Guinea	-	-	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Peru	-	1	55	1,672	2,069	-	-	387
Philippines	1,055	1,931	2,004	1,422	1,364	1,364	1,900	2,001
Russia	-	26	89	90	91	91	91	91
Singapore	-	-	-	-	-	-	-	11,825
Chinese Taipei	1,000	-	735	1,048	1,116	1,234	1,332	1,821
Thailand	-	1	2,218	2,480	2,480	2,889	2,797	811
United States of America	4,919	5,765	12,348	28,920	39,137	45,259	54,082	71,535
Viet Nam	-	-	2,803	N.A.	N.A.	N.A.	N.A.	N.A.

## Appendices

**A. Definition of Products**

1. Coal
2. Oil
3. Natural Gas
4. Electricity and Heat
5. New and Renewable Energy

**B. Definition of Flows**

**C. Energy Prices**

**D. Definition of Columns and Rows of the Energy Balance Table**

**E. Conversion Factors**

## A. Definition of Products

### COAL

Primary coal is a fossil fuel, usually with the physical appearance of a black or brown rock, consisting of carbonised vegetal matter. The higher the carbon content of a coal, the higher its rank or quality is. Coal types are distinguished by their physical and chemical characteristics. These characteristics determine the suitability for various uses. There are three main categories of coal: hard coal, sub-bituminous coal and brown coal (also called lignite). Peat, which is another primary fuel closely related to coal, is often included under coal.

#### 1. Anthracite

High rank coal used for industrial and residential applications. It has generally less than 10% volatile matter and a high carbon content (about 90% fixed carbon). Its gross calorific value is greater than 23 865 kJ/kg (5 700 kcal/kg) on an ash-free but moist basis.

#### 2. Coking Coal

Bituminous coal with a quality that allows the production of a coke suitable to support a blast furnace charge. Its gross calorific value is greater than 23 865 kJ/kg (5 700 kcal/kg) on an ash-free but moist basis.

#### 3. Bituminous Coal

Coal used for steam raising purposes and includes all bituminous coal that is not included under coking coal nor anthracite. It is characterized by higher volatile matter than anthracite (more than 10%) and lower carbon content (less than 90% fixed carbon). Its gross calorific value is greater than 23 865 kJ/kg (5 700 kcal/kg) on an ash-free but moist basis. If bituminous coal is used in coke ovens it should be reported as coking coal.

#### 4. Sub-bituminous Coal

Non-agglomerating coals with a gross calorific value between 17.4 MJ/kg (4,165 kcal/kg) and 23.9 MJ/kg (5,700 kcal/kg) containing more than 31% volatile matter on a dry mineral matter free basis.

#### 5. Lignite

Non-agglomerating coals with a gross calorific value less than 17.4 MJ/kg (4,165 kcal/kg) and greater than 31% volatile matter on a dry mineral matter free basis. Oil shale and tar sands produced and combusted directly should be reported in this category. Oil shale and tar sands used as inputs for other transformation processes should also be reported in this category. This includes the portion of the oil shale or tar sands consumed in the transformation process.

#### 6. Peat

Combustible soft, porous or compressed, fossil sedimentary deposit of plant origin with high water content (up to 90 per cent in the raw state), easily cut, of light to dark brown color. Only peat used for energy purposes should be reported here.

#### 7. Patent Fuel

A composition fuel manufactured from hard coal fines by shaping with the addition of a binding agent. Note that the amount of patent fuel produced can be slightly higher than the amount of coal consumed in the transformation process because of the addition of a binding agent.

#### 8. Coke Oven Coke

Coke comprises Coke Oven Coke and Gas Coke.

- **Coke Oven Coke:** The solid product obtained from carbonization of coal, principally coking coal,

at high temperature, it is low in moisture and volatile matter. Coke oven coke is used mainly in the iron and steel industry acting as energy source and chemical agent. Coke breeze and foundry coke are included in this category. Semi-coke, the solid product obtained from carbonization of coal at low temperature, should be included in this category. Semi-coke is used as a domestic fuel or by the transformation plant itself. This heading also includes coke, coke breeze and semi-coke made from lignite/brown coal.

- **Gas Coke:** A by-product of hard coal used for production of town gas in gas works. Gas Coke is used for heating purposes.

## 9. Coal Tar

Coal tar is a by-product of the coke oven process.

## 10. BKB/PB (Braunkohlenbriketts/Peat Briquettes)

A composition fuel manufactured from lignite/brown coal or peat. The lignite/brown coal or peat is crushed, dried and molded under high pressure into an even-shaped briquette without the addition of binders. German production of lignite dust is included in this category.

## 11. Gas Works Gas

Covers all types of gases including substitute natural gas produced in public utility or private plants, whose main purpose is manufacture, transport and distribution of gas. It includes gas produced by carbonization (including gas produced by coke ovens and transferred to gas works gas) reported under the "production" row, by total gasification with or without enrichment with oil products (LPG, residual fuel oil, etc.), by cracking of natural gas, and by reforming and simple mixing of gases and/or air,

reported under the "from other sources" row. Substitute natural gas is a high calorific value gas, manufactured by chemical conversion of a hydrocarbon fossil fuel. It is chemically and physically interchangeable with natural gas and is usually distributed through the natural gas grid. The main raw materials for manufacture of substitute natural gas are: coal, oil and oil shales. Substitute natural gas is distinguished from other manufactured gases by its high heat value (above 8,000 kcal/m<sup>3</sup>) and by its high methane content (above 85%). Substitute natural gas produced by synthesis from fuels other than coal based should also come under "from other sources". The quantity of fuel should be reported on a gross calorific value.

## 12. Coke Oven Gas

Obtained as a by-product of solid fuel carbonization and gasification operations carried out by coke producers and iron and steel plants which are not connected with gas works and municipal gas plants. The quantity of fuel should be reported on a gross calorific value.

## 13. Blast Furnace Gas

Obtained as a by-product in operating blast furnaces; it is recovered on leaving the furnaces and used partly within the plant and partly in other steel industry processes or in power stations equipped to burn it. The quantity of fuel should be reported on a gross calorific value.

## 14. Oxygen Steel Furnace Gas

Obtained as a by-product of the production of steel in an oxygen furnace; it is recovered on leaving the furnace. The gas is also known as converter gas, LD or BOS gas. The quantity of fuel should be reported on a gross calorific value.

## OIL

### **1. Crude Oil**

Crude oil is a mineral oil of natural origin comprising a mixture of hydrocarbons and associated impurities, such as sulphur. It exists in the liquid phase under normal surface temperature and pressure and its physical characteristics (density, viscosity, etc.) are highly variable. This category includes field or lease condensate recovered from associated and non-associated gas where it is commingled with the commercial crude oil stream.

### **2. Natural Gas Liquids (NGL)**

NGL are liquid or liquefied hydrocarbons recovered from natural gas in separation facilities or gas processing plants. Natural gas liquids include ethane, propane, butane (normal and iso-), (iso) pentane and pentanes plus (sometimes referred to as natural gasoline or plant condensate).

### **3. Refinery Feedstocks**

A refinery feedstock is a processed oil destined for further processing (e.g. straight run fuel oil or vacuum gas oil) excluding blending. With further processing, it will be transformed into one or more components and/or finished products. This definition also covers returns from the petrochemical industry to the refining industry (e.g. pyrolysis gasoline, C<sub>4</sub> fractions, gasoil and fuel oil fractions).

### **4. Additives/Oxygenates**

Additives are non-hydrocarbon compounds added to or blended with a product to modify fuel properties (octane, cetane, cold properties, etc.):

- **Oxygenates:** such as alcohols (methanol, ethanol), ethers (such as MTBE (methyl tertiary butyl ether), ETBE (ethyl tertiary butyl ether), TAME (tertiary amyl methyl ether));
- **Esters** (e.g. rapeseed or dimethylester, etc.);

- **Chemical Compounds** (such as TML, TEL and detergents).

Note: Quantities of ethanol relate only to the quantities destined for fuel use.

### **5. Biofuels**

Biofuels such as bio-gasoline and bio-diesel that are blended into gasoline and diesel by the consumer or at a refinery plant.

- **Bio-gasoline:** a gasoline quality liquid fuel produced from biomass or used cooking oils consists of bioethanol, biomethanol, BioETBE and bioMTBE
- **Bio-diesel:** a diesel quality liquid fuel produced from biomass or used cooking oils, consists of biodiesel, bio-dimethylether, fischer tropsh and cold pressed biooil.
- **Bio-ethanol:** ethanol produced from biomass and/or biodegradable fraction of waste;
- **Bio-methanol:** methanol produced from biomass and/or the biodegradable fraction of waste;
- **Bio-dimethylether:** a diesel quality fuel produced from biomass and/or the biodegradable fraction of waste;
- **Bio-oil:** a pyrolysis oil fuel produced from biomass

### **6. Other Hydrocarbons**

This category includes synthetic crude oil from tar sands, shale oil, etc., liquids from coal liquefaction, output of liquids from natural gas conversion into gasoline, hydrogen and emulsified oils (e.g. Orimulsion).

Note on the reporting of emulsified oils:

All imports of emulsified oils (e.g. Orimulsion) should be reported as imports of 'Other Hydrocarbons' (cell F8 in Table 1). As these oils do not need further processing

in a refinery, report these quantities as Direct Use (cell F10 in Table 1) and Primary Product Receipts in the 'Bitumen' category in Table 2. Any production of emulsified oils should appear as indigenous production of 'Other Hydrocarbons' (cell F1 in Table 1). Report all quantities in physical weight of the emulsion (i.e. including the water content).

### **7. Refinery Gas (not liquefied)**

Refinery gas includes a mixture of non-condensable gases mainly consisting of hydrogen, methane, ethane and olefins obtained during distillation of crude oil or treatment of oil products (e.g. cracking) in refineries. This also includes gases which are returned from the petrochemical industry.

### **8. Ethane**

A naturally gaseous straight-chain hydrocarbon, ( $C_2H_6$ ) extracted from natural gas and refinery gas streams.

### **9. Liquefied Petroleum Gases (LPG)**

LPG are light paraffinic hydrocarbons derived from the refinery processes, crude oil stabilisation and natural gas processing plants. They consist mainly of propane ( $C_3H_8$ ) and butane ( $C_4H_{10}$ ) or a combination of the two. They could also include propylene, butylene, isobutene and isobutylene. LPG are normally liquefied under pressure for transportation and storage.

### **10. Naphtha**

Naphtha is a feedstock destined for either the petrochemical industry (e.g. ethylene manufacture or aromatics production). Naphtha comprises material in the 30°C and 210°C distillation range or part of this range. Naphtha imported for blending is reported as an import of naphtha, then shown on the interproduct transfer row, as a negative entry for Naphtha, and a positive entry for the corresponding finished product.

### **11. Motor Gasoline**

Motor gasoline consists of a mixture of light hydrocarbons distilling between 35°C and 215°C. It is

used as a fuel for land based spark ignition engines. Motor gasoline may include additives, oxygenates and octane enhancers, including lead compounds such as TEL (Tetraethyl lead) and TML (tetramethyl lead).

### **12. Aviation Gasoline**

This is motor spirit prepared especially for aviation piston engines, with an octane number suited to the engine, a freezing point of -60°C and a distillation range usually within the limits of 30°C and 180°C.

### **13. Gasoline Type Jet Fuel (Naphtha type Jet Fuel or JP4)**

This includes all light hydrocarbon oils for use in aviation turbine power units, distilling between 100°C and 250°C. They are obtained by blending kerosenes and gasoline or naphtha in such a way that the aromatic content does not exceed 25% in volume, and the vapour pressure is between 13.7kPa and 20.6kPa.

### **14. Kerosene Type Jet Fuel**

This is a distillate used for aviation turbine power units. It has the same distillation characteristics between 150°C and 300°C (generally not above 250°C) and flash point as kerosene. In addition, it has particular specifications (such as freezing point) which are established by the International Air Transport Association (IATA). This category includes kerosene blending components.

### **15. Other Kerosene**

Kerosene comprises refined petroleum distillate and is used in sectors other than aircraft transport. It distils between 150°C and 300°C.

### **16. Gas/Diesel Oil (Distillate Fuel Oil)**

Gas/diesel oil is primarily a medium distillate distilling between 180°C and 380°C, and mainly used for diesel compression ignition (cars, trucks, etc.), usually of low sulphur content.

### **17. Fuel Oil**

This covers all residual (heavy) fuel oils (including those

obtained by blending). Kinematic viscosity is above 10 cSt at 80°C. The flash point is always above 50°C and density is always more than 0.90 kg/l.

## 18. White Spirit and SBP

White Spirit and SBP are defined as refined distillate intermediates with a distillation in the naphtha/kerosene range. They are sub-divided as:

- **Industrial Spirit (SBP)**: Light oils distilling between 30° and 200°C. There are 7 or 8 grades of industrial spirit, depending on the position of the cut in the distillation range. The grades are defined according to the temperature difference between the 5% volume and 90% volume distillation points (which is not more than 60°C).
- **White Spirit**: Industrial spirit with a flash point above 30°C. The distillation range of white spirit is 135° to 200°C.

## 19. Lubricants

Lubricants are hydrocarbons produced from distillate by product; they are mainly used to reduce friction between bearing surfaces. This category includes all finished grades of lubricating oil, from spindle oil to cylinder oil, and those used in greases, including motor oils and all grades of lubricating oil base stocks.

## 20. Bitumen

Bitumen is a solid, semi-solid or viscous hydrocarbon with a colloidal structure, being brown to black in colour, obtained as a residue in the distillation of crude oil, by vacuum distillation of oil residues from atmospheric distillation. Bitumen is often referred to as asphalt and is

primarily used for construction of roads and for roofing material. This category includes fluidized and cut back bitumen.

## 21. Paraffin Waxes

These are saturated aliphatic hydrocarbons. These waxes are residues extracted when dewaxing lubricant oils. They have a crystalline structure which is more-or-less fine according to the grade. Their main characteristics are as follows: they are colourless, odourless and translucent, with a melting point above 45°C.

## 22. Petroleum Coke

Petroleum coke is a black solid by-product, obtained mainly by cracking and carbonising petroleum derived feedstock, vacuum bottoms, tar and pitches in processes such as delayed coking or fluid coking. It consists mainly of carbon (90 to 95%) and has a low ash content. It is used as a feedstock in coke ovens for the steel industry, for heating purposes, for electrode manufacture and for production of chemicals. The two most important qualities are "green coke" and "calcinated coke". This category also includes "catalyst coke" deposited on the catalyst during refining processes; this coke is not recoverable and is usually burned as refinery fuel.

## 23. Other Products

All products not specifically mentioned above, for example: tar and sulphur. This category also includes aromatics (e.g. BTX or benzene, toluene and xylene) and olefins (e.g. propylene) produced within refineries.

## GAS

### 1. Natural Gas

Natural gas comprises gases, occurring in underground deposits, whether liquefied or gaseous, consisting mainly of methane. It includes both "non-associated" gas originating from fields producing hydrocarbons only in gaseous form, and "associated" gas produced in association with crude oil as well as methane recovered from coal mines (colliery gas). Manufactured gas (produced from municipal or industrial waste, or sewage) should be reported in the Annual Questionnaire on Renewable and Wastes.

- **Associated Gas:** natural gas produced in association with crude oil.
- **Non-Associated Gas:** natural gas originating from fields producing hydrocarbons only in gaseous form.
- **Colliery Gas:** methane produced at coal mines, piped to the surface and consumed at collieries or transmitted by pipeline to consumers.

### 2. LNG

Liquid Natural Gas is produced by liquefaction of natural gas.

## NEW AND RENEWABLE ENERGY

### 1. Fuelwood

Covers purpose-grown energy crops (poplar, willow, etc), a multitude of woody materials generated by an industrial process (wood/paper industry in particular) or provided directly by forestry such as firewood, wood chips, bark, sawdust, shavings, chips, black liquor, etc. The quantity of fuel used should be reported on a net calorific value basis.

making.

### 4. Charcoal

Covers the solid residue of the destructive distillation and pyrolysis of wood and other vegetal material.

### 2. Woodwaste

Yard trash and types of waste typically generated by sawmills, plywood mills, and woodyards associated with the lumber and paper industry, such as wood residue, cutoffs, wood chips, sawdust, wood shavings, bark, wood refuse, wood-fired boiler ash, and plywood or other bonded materials that contain only phenolic-based glues or other glues that are approved specifically by the administrative authority.

### 5. Other Biomass

All other solid biomass products not specifically mentioned above. This includes agricultural wastes such as straw, rice husks, nut shells, poultry litter, crushed grape dregs, palm oil bunches, etc. The quantity of fuel used should be reported on a net calorific value basis.

### 3. Bagasse

Covers crushed sugar cane or beet refuse from sugar

### 6. Biogas

A gas composed principally of methane and carbon dioxide produced by anaerobic digestion of biomass, comprising:

- **Landfill gas:** formed by the digestion of landfilled wastes.
- **Sewage sludge gas:** produced from the anaerobic fermentation of sewage sludge.

- **Other biogas:** such as biogas produced from the anaerobic fermentation of animal slurries and of wastes in abattoirs, breweries and other agro-food industries.

## 7. Industrial Waste

Wastes of industrial non-renewable origin (solids or liquids) combusted directly for the production of electricity and/or heat. The quantity of fuel used should be reported on a net calorific value basis. Renewable industrial waste should be reported in the Solid biomass, Biogas and/or Liquid biofuels categories.

## 8. Municipal solid waste (renewables)

Waste produced by households, industry, hospitals and the tertiary sector that contains non-biodegradable materials that are incinerated at specific installations. The quantity of fuel used should be reported on a net calorific value basis.

## 9. Liquid Biofuels

Biofuels cover bio-ethanol, bio-diesel, bio-methanol, bio-dimethylether, bio-oil. Liquid bio-fuels are mainly bio-diesel and bio-ethanol/ETBE used as transport fuels. They can be made from new and used vegetable oils and may be blended with or replace petroleum-based fuels. The natural plant feedstock includes soya, sunflower and oil seed rape oils. Under some circumstances, used vegetable oils may also be used as feedstock for the process.

## 10. Hydro

Potential and kinetic energy of water converted into electricity in hydroelectric plants. Pumped storage also

included. Detailed plant sizes should be reported net of pumped storage.

## 11. Geothermal

Energy available as heat emitted from within the Earth's crust, usually in the form of hot water or steam. It is exploited at suitable sites:

- **Electricity:** For Electricity generation using dry steam or high enthalpy brine after flashing.
- **Thermal:** Directly as Heat for district heating, agriculture, etc.

## 12. Solar

- **Pothovoltaic:** Solar energy used for electricity generation.
- **Thermal:** Solar energy exploited for hot water production by: Flat plate collectors, mainly of the thermosyphon type, for domestic hot water or for the seasonal heating of swimming pools.

(Note: Passive solar energy for the direct heating, cooling and lighting dwellings or other buildings is not included.)

## 13. Tide/wave/ocean

Mechanical energy derived from tidal movement or wave motion and exploited for electricity generation.

## 14. Wind Energy

Kinetic energy of wind exploited for electricity generation in wind turbines.

## ELECTRICITY AND HEAT

### 1. Thermal

Electricity and heat generation from combustible fuels such as coal, oil and gas.

### 2. Hydro

Power generation from hydro plants, including pumped up (pumped storage) plants.

### 3. Nuclear

Electricity and heat generation from nuclear plants.

### 4. Geothermal

Electricity and heat generation from geothermal plants.

### 5. Renewable Energy

Electricity and heat generation from solar, biomass, and waste and Electricity generation from tide, wave, ocean and wind.

#### ▫ Solar

- **Electricity:** Quantity of electricity generated by solar photovoltaic.
- **Heat:** Solar energy exploited for hot water

production by: Flat plate collectors, mainly of the thermosyphon type, for domestic hot water or for the seasonal heating of swimming pools.

- (Note: Passive solar energy for the direct heating, cooling and lighting dwellings or other buildings is not included.)
- **Tide, Wave, Ocean:** Mechanical energy derived from tidal movement or wave motion and exploited for electricity generation.
- **Wind:** Kinetic energy of wind exploited for electricity generation in wind turbines.
- **Biomass:** Electricity and heat produced by Fuelwood, Woodwaste, Bagasse, Other Biomass, Biogas and Liquid Biofuels.
- **Waste:** Electricity and heat produced by Industrial Waste and Municipal Solid Waste.

### 6. Others

Electricity and heat generation from other fuel sources such as fuel cells etc.

## B. Definition of Flows

### SUPPLY SECTOR

Domestic supply is defined as indigenous production + from other sources + imports - exports - international marine bunkers ± stock changes.

#### 1. Production

Production refers to the quantities of fuels and energies extracted or produced, calculated after any operation for removal of inert matter or impurities. Indigenous production refers to production within national boundaries including off shore production. There are a few specificities according to the fuels:

- **Oil:** Production includes only marketable production, and excludes volumes returned to formation. Such production should include all crude oil, NGL, condensates and oil from shale and tar sand, etc. It should also include the receipts of additives/oxygenates by refineries and blending plants from outside the refinery sector.
- **Natural Gas:** All dry marketable production is measured after purification and extraction of NGLs and sulphur. Quantities reinjected, vented or flared, are not included. Production includes quantities used within the natural gas industry; in gas extraction, pipeline systems and processing plants.

Calculation of production of hydro, geothermal, solar, wind, etc and nuclear follows some conventions used by selected international organisations.

As regards the production of secondary energy in the basic energy statistics, production of secondary oil products represents the gross refinery output. Secondary coal products and gases represent the output from coke ovens, gas works, blast furnaces and other transformation processes. In the energy balances production of

secondary products is zero and the gross refinery output is included in the transformation sector.

**Production from other sources:** Production from other sources refers to both primary energy that has not been accounted for under production and secondary energy that has been accounted for in the production of another fuel. There are a few examples:

- additives and other hydrocarbons produced from coal, gas or renewables;
- oil and coal used in natural gas blending plants to adjust calorific value;
- recovered slurries, middling and other low grade coal products which cannot be classified according to the main categories of coal.

#### 2. Imports and Exports

Quantity of energy that have crossed the national territorial boundaries, whether customs clearance has taken place or not. Quantities of crude oil and products imported or exported under processing agreements (i.e. refining on account) should be included. Crude oil and NGLs should be reported as coming from the economy of ultimate origin; refinery feedstocks and finished products should be reported as coming from the economy of last consignment. Any gas liquids (e.g. LPG) extracted during the regasification of imported liquefied natural gas should be included as imports. Petroleum products imported or exported directly by the petrochemical industry should be included.

Note: Imports or exports of ethanol (reported in the Additives/Oxygenate column) should relate to the quantities destined for fuel use.

Re-exports of oil imported for processing within bonded

areas should be included as an export of product from the processing economy to the final destination.

### **3. International Marine Bunkers**

International Marine Bunkers cover the quantities of fuels delivered to sea-going ships of all flags. Consumption of warships should be included in Final Consumption under Other Sector, Not Elsewhere Specified. Consumption by ships engaged in fishing and in transport in inland and coastal waters is not included.

### **4. International Aviation Bunkers**

International aviation bunkers includes deliveries of aviation fuels to aircraft for international aviation. Fuels used by airlines for their road vehicles are excluded. The domestic/international split should be determined on the basis of departure and landing locations and not by the nationality of the airline.

### **5. Stock Changes**

Stock changes should reflect the difference between opening stock level and closing stock level for stocks held on national territory. A stock build is shown as a

negative number, and a stock draw as a positive number.

### **6. Transfers**

This refers to products transferred and inter-product transfers. Products transferred are imported petroleum products which are reclassified as feedstocks for further processing in the refinery, without delivery to final consumers. Inter-product transfers result from reclassification of products either because their specification has changed, or because they are blended into another product. For example, quantities of kerosene may be reclassified as gas oil after blending with the latter in order to meet its winter diesel specification.

### **7. Statistical Difference**

This is the difference between calculated and observed gross inland deliveries. National Administrations sometimes obtain the data components of domestic availability from a variety of sources. Owing to differences in concepts, coverage, timing and definitions, observed and calculated gross inland deliveries are often not identical.

## **TRANSFORMATION SECTOR**

The transformation sector comprises the conversion of primary forms of energy to secondary and further transformation (e.g. coking coal to coke, crude oil to petroleum products, and heavy fuel oil to electricity). The transformation can take place in various plants including: electricity plants, combined heat and power plants, heat plants, blast furnace/gas works, coke/patent fuel/BKB plants, petroleum refineries, petrochemical industry, liquefaction plants, and other plants.

### **1. Electricity Plants**

Electricity plants refer to plants which are designed to produce electricity only. If one or more units of the plant

is a CHP unit (and the inputs and outputs can not be distinguished on a unit basis) then the whole plant is designated as a CHP plant. Both main activity producer (formerly known as public) and autoproducer plants are included here. Heat from chemical processes for electricity generation is also included here.

### **2. Combined Heat and Power Plants (CHP)**

Combined heat and power plants refers to plants which are designed to produce both heat and electricity (sometimes referred to as co-generation power stations). If possible, fuel inputs and electricity/heat outputs are on a unit basis rather than on a plant basis. However, if data

are not available on a unit basis, the convention for defining a CHP plant noted above should be adopted. Both main activity producer (formerly known as public) and autoproducer plants are included here.

### **3. Heat Plants**

Heat plants refer to plants (including heat pumps and electric boilers) designed to produce heat only and who sell heat to a third party (e.g. residential, commercial or industrial consumers) under the provisions of a contract. Both main activity producer (formerly known as public) and autoproducer plants are included here. Heat pumps that are operated within the residential sector where the heat is not sold are not considered a transformation process and are not included here • the electricity consumption would appear as residential use.

### **4. Blast Furnaces**

Blast furnaces are for the production of pig-iron from iron ore. The transformation component pertains to the fuels used for supporting the blast furnace charge and providing heat and carbon for the reduction of the iron ore. Accounting for the calorific content of the fuels entering the process is a complex matter as transformation (into blast furnace gas) and consumption (heat of combustion) occur simultaneously. Some carbon is also retained in the pig-iron; almost all of this reappears later in the oxygen steel furnace gas (or converter gas) when the pig-iron is converted to steel.

### **5. Gas Works**

Gas works plants are for the production of town gas/gas work gas by carbonization (including gas produced by coke ovens and transferred to gas works gas), by total gasification with or without enrichment with oil products (LPG, residual fuel oil, etc.), and by reforming and simple mixing of gases and/or air.

### **6. Coke Ovens**

Coke Ovens are facilities for the carbonization of coal, principally coking coal, at high temperature. The transformation process provide for the production of

coke and by-products such as coke oven gas and coal tar.

### **7. Patent Fuel Plants**

Patent Fuel Plants are for the manufacturing of a composition fuel made of hard coal fines and addition of a binding agent.

### **8. BKB Plants**

BKB (Brown Coal Briquettes) plants are for the manufacturing of a composition fuel made of lignite/brown coal (including dried lignite fines and dust) produced by briquetting under high pressure without the addition of a binding agent. This includes Peat Briquettes Plants which produce a similar composition fuel using peat.

### **9. Petroleum Refineries**

Petroleum refineries are industrial plants which convert (transform) crude oil and other hydrocarbons into finished petroleum products.

### **10. Petrochemical Industry**

Petrochemical industries are industrial plants the produce raw materials for the manufacturing of plastics, synthetic fibers and rubbers, fertilizers, pesticides, detergents and solvents. Quantities of backflows or petroleum products returned from the petrochemical sector, whether returned to refineries for further processing/blending or used directly. Note: energy use in the petrochemical sector is reported in the Energy Sector, non-energy use is shown in the chemical/petrochemical industrial sector as non-energy.

### **11. Liquefaction Plants**

Liquefaction plants include diverse liquefaction processes, such as coal liquefaction plants and gas-to-liquid plants. Coal Liquefaction plants are facilities where coal is used to produce liquid fuels suitable for transportation applications by the removal of carbon or addition of hydrogen, either directly or indirectly.

## 12. Natural Gas Blending Plants

These are plants where the calorific value of natural gas for distribution is adjusted through blending with gases from oil and/or coal.

## 13. Charcoal Production Plants

Charcoal plants are facilities where charcoal, a solid

residue, is produced from the destructive distillation and pyrolysis of wood and other vegetable material.

## 14. Other Transformation Plants

Other transformation plants represent other energy transformation processes not already covered by the list of definition.

## ENERGY SECTOR

The Energy sector covers ISIC and NACE Divisions 10, 11, 12, 23 and 40. The Energy sector includes the manufacture of chemical materials for atomic fission and fusion and the products of these processes. Fuels used in the manufacture of fuel briquettes and packaged fuel from coal or lignite and consumption in coke ovens and other transformation industries should also be reported here.

The energy sector is divided into the following sub-sectors: Coal Mines, Patent Fuel Plants, Coke Ovens, Gas Work Plants, Natural Gas Blending Plants, Blast Furnaces, BKB/PB Plants, Petroleum Refineries,

Electricity, CHP and Heat Plants, Liquefaction Plants, Not elsewhere Specified and Distribution Losses.

Fuels used by the energy industry to support the extraction (mining, oil and gas production) or transformation activity are reported in this category. For example: fuel used for heating, lighting, or operating pumps/compressors, or used as inputs fuel into furnaces or ovens. Note that quantities of fuels transformed into another energy form should be reported under the Transformation sector. Consumption used in support of the operation of pipelines (oil, gas and coal slurry) should be reported in the Transport Sector.

## FINAL ENERGY CONSUMPTION SECTOR

The term final consumption (equal to the sum of the consumption in the end-use sectors: industry, transport, residential, commercial/public services, agriculture/forestry, fishing and non specified) implies that energy used for transformation and for own use of the energy producing industries is excluded. Final consumption reflects for the most part deliveries to consumers. It includes consumption for both energy and non-energy purposes.

### 1. Industry Sector

Industry sector covers all industrial undertakings as

enumerated below. Sectors included are iron and steel; chemical including petrochemical; non-ferrous metals; non-metallic mineral products; transport equipment; machinery; mining (excluding energy producing industries) and quarrying; food processing, beverages and tobacco; pulp, paper and printing; wood and wood products (other than pulp and paper); construction; textile and leather; not elsewhere specified.

#### 1.1 Iron and Steel

Covers ISIC Group 271 and Class 2731. Report pulverised coal injection (PCI) into blast furnaces under

blast furnaces, Transformation sector. To avoid double counting, fuels used in blast furnaces should be reported in the Transformation sector. (NACE Divisions 27.1, 27.2, 27.3, 27.51, and 27.52).

## 1.2 Chemical including Petrochemical

Refers to ISIC Division 24 (NACE Division 24).

- Includes manufacture of basic chemicals (ISIC 241)
- Other chemical products (ISIC 242), Man-made fibers (ISIC 243)

## 1.3 Non-ferrous Metals

Refers to ISIC Group 272 and Class 2732. (NACE Division 27.4, 27.53 and 27.54).

- Manufacture of precious and non-ferrous metals (ISIC 272)
- Casting of non-ferrous metals (2732)

## 1.4 Non-metallic Minerals Products

Covers ISIC Division 26, i.e.: Glass, ceramic, cement and other building materials industries. (NACE Division 26).

- Manufacture of glass and glass products (ISIC 261)
- Non-metallic mineral products (ISIC 262) such as ceramics, tiles, baked clay products and cement

## 1.5 Transport Equipment

Covers ISIC Division 34 and 35. (NACE Division 34 and 35), i.e.:

- Manufacture of motor vehicles (ISIC 341) bodies for motor vehicles and semi trailers (ISIC 342)
- Parts and accessories for motor vehicles (ISIC 343)
- Shipbuilding and repair (ISIC 345)
- Railway and tramway locomotives (ISIC 352)
- Aircraft and spacecrafts (ISIC 353)
- Transport equipment not elsewhere classified (ISIC 359)

## 1.6 Machinery

Refers to Fabrication of metal products, machinery and equipment other than transport equipment. ISIC Division 28, 29, 30, 31 and 32. (NACE Division 28, 29, 30, 31 and 32)

- Structural metal products (ISIC 281)
- Other fabricated metal products (ISIC 289)
- General purpose machinery (ISIC 291)
- Special purpose machinery (ISIC 292)
- Domestic appliances (ISIC 293)
- Office, accounting and computing machinery (ISIC 300)
- Electric motors, generators and transformers (ISIC 311)
- Electricity distribution and control apparatus (ISIC 312)
- Insulated wire & cable (ISIC 313),
- Accumulators, primary cells and batteries (ISIC 314)
- Electric lamps and lighting equipment (ISIC 315),
- Other electrical equipment (ISIC 319),
- Electric valve, tubes and other conductors (ISIC 321),
- Television and radio transmitters (ISIC 322),
- Television and radio receivers, sound or video recording reproducing apparatus and associated goods (ISIC 323)

## 1.7 Mining (excluding energy producing industries) and Quarrying

Refers to ISIC Divisions 13 and 14. (NACE Divisions 13 and 14), i.e.:

- Mining of iron ores (ISIC 131)
- Mining of non-ferrous metal ores (ISIC 132)
- Quarrying of stone, sand and clay (ISIC 141)
- Mining and quarrying not elsewhere classified (ISIC 142)

### **1.8 Food Processing, Beverages and Tobacco**

Refers to ISIC Division 15 and 16. (NACE Divisions 15, 16), i.e.:

- Production, processing and preservation of meat, fish, fruit, vegetables (ISIC 151)
- Manufacture of dairy products (ISIC 152)
- Manufacture of grain mill products, starches and starch products and animal feeds (ISIC 153)
- Manufacture of other food products (ISIC 154)
- Manufacture of beverages (ISIC 155)
- Manufacture of tobacco products (ISIC 160)

### **1.9 Pulp, Paper and Printing**

Refers to ISIC Division 21 and 22. (NACE 21, 22)

Includes production of recorded media.

- Paper and paper products (ISIC 210)
- Publishing (ISIC 221)
- Printing and printing related activities (ISIC 222)
- Reproduction of recorded media (ISIC 223)

### **1.10 Wood and Wood products (other than pulp and paper)**

Refers to ISIC Division 20. (NACE Division 20), i.e.:

- Sawmill and planing of wood (ISIC 201)
- Wood products, cork, straw and plaiting materials (ISIC 202)

### **1.11 Construction**

Refers to ISIC Division 45. (NACE Division 45), i.e.:

- Site preparation (ISIC 451)
- Building of complete construction (ISIC 452)
- Building installation (ISIC 453)
- Building completion (ISIC 454)
- Renting of construction or demolition equipment (ISIC 455)

### **1.12 Textile and Leather**

Refers to ISIC Divisions 17, 18 and 19. (NACE Divisions 17, 18, 19), i.e.:

- Spinning, weaving and finishing of textiles (ISIC 171)
- Manufacture of other textiles (ISIC 172)
- Manufacture of knitted and crocheted fabrics and articles (ISIC 173)
- Manufacture of wearing apparel except fur apparel (ISIC 181)
- Dressing and dyeing of fur; manufacture of articles of fur (ISIC 182)

### **1.13 Not elsewhere specified**

If your economy's industrial classification does not correspond to the above ISIC or NACE codes, please estimate the breakdown by industry and include in "Not elsewhere specified" only consumption in sectors which is not covered above. This covers ISIC Division 25, 33, 36 and 37. (NACE Divisions 25, 33, 36 and 37), i.e.:

- Rubber products (ISIC 251)
- Plastic products (ISIC 252)
- Medical appliances and instruments (ISIC 331)
- Optical instruments and photographic equipment (ISIC 332)
- Watches and clocks (ISIC 333), Furniture (ISIC 361)
- Others manufacturing not elsewhere classified (ISIC 369)
- Recycling of metal waste and scrap (ISIC 371)
- Recycling of non-metal waste and scrap (ISIC 372)

## **2. Transport Sector**

All transport activities irrespective of the economic sector in which the activity occurs. Refers to ISIC and NACE categories: Divisions 60, 61 and 62.

### **2.1 Domestic Air Transport**

Refers to domestic aircraft - commercial, private, agricultural, etc.; include oil used for purposes other than flying, e.g. bench-testing of engines. Military use of aviation fuels also should be excluded here.

## 2.2 Road

Transport by road vehicles. It includes agricultural highway use, but excludes motor gasoline used in stationary engines (included in the Other sector) and diesel oil for non-highway use in tractors (included in Agriculture). Lubricants for use in road vehicles should be included here. Bitumen for use in road surfacing and gas oil used in engines at construction sites should not be included here but should be included in the Industry subsector "Construction" below.

## 2.3 Rail

Refers to rail traffic, including industrial railways.

## 2.4 Inland Waterways

Refers to water vessels navigating in inland waterways and coastal shipping. For example: small craft, barges, and those coastal ships which do not travel for international transportation.

## 2.5 Pipeline Transport

Refers to transport of goods through pipelines.

## 2.6 Not Elsewhere Specified

Transport activities not included elsewhere.

## 3. Other Sector

Other sector covers commercial and public services, residential, agriculture, fishing and other final consumption not elsewhere classified.

### 3.1 Commercial and Public Services

These refer to business and offices in the public and private sectors. ISIC Divisions 41, 50, 51, 52, 55, 63, 64, 65, 66, 67, 70, 71, 72, 73, 74, 75, 80, 85, 90, 91, 92, 93 and 99. (NACE Divisions 50, 51, 52, 41, 55, 63, 64, 65, 66, 67, 70, 71, 72, 74, 75, 80, 85, 90, 91, 92, 93, 99).

### 3.2 Residential

Refers to all households including "households with employed persons." ISIC Division 95 (NACE Division 95).

## 3.3 Agriculture

Refers to agriculture, hunting and forestry by ISIC as follows: ISIC Divisions 01 and 02. (NACE 01 and 02)

## 3.4 Fishing

Refers to aquaculture and fisheries. Includes ocean, coastal and inland fishing. ISIC Division 05 and NACE 05. This class includes: fishing on a commercial basis in ocean, coastal or inland waters; taking of marine and freshwater crustaceans and mollusks; whale catching; hunting of aquatic animals: turtles, sea squirts, tunicates, sea urchins etc. This class also includes: activities of vessels engaged both in fishing, and in processing and preserving of fish; gathering of marine materials: natural pearls, sponges, coral and algae; and service activities incidental to fishing.

## 3.5 Not elsewhere specified

Report activities not included elsewhere, please specify. This category includes military use.

## 3.6 Non-energy Use

Refers to use of energy products as raw materials in the different sectors; that is, not consumed as a fuel or transformed into another fuel. Example: In industry, coal used to make methanol or ammonia.

This is further classified into:

- **Chemical (incl. the petrochemical sector):** Non-energy use of coal includes uses as feedstocks to produce fertilizer and as feedstocks for other petrochemical products.
- **Transport Sector:** Non-energy use in all Transport sub sectors.
- **Other Sector:** Non-energy use in Commercial and Public Services, Residential, Agriculture and Not elsewhere specified.

## C. Energy Prices

### ENERGY PRICES

Energy prices are in either local currency units or in US dollars.

#### **Table 1. Import Prices**

These are import prices based on CIF. These prices are obtained by dividing the value by the volume in foreign trade. Value and volume are recorded by customs administrations for each tariff position. Values recorded at the import stage include cost, insurance and freight (CIF) but exclude import duties.

These are import prices of coal and coal products; crude oil, NGL and petroleum products; electricity and other products including biofuels and other renewable energy products.

The average local currency exchange rate to the US dollar and local currency unit are also required in this table.

#### **Table 2. Wholesale Prices**

Table 2 contains wholesale prices. These are the prices that a buyer pays for large volume purchases whether for own consumption or retail. Examples are prices paid by

electricity distribution companies to electricity generators or suppliers.

Prices are either in local currency units or in US Dollars.

#### **Table 3. Consumer Prices**

These are the prices paid by end-use consumers such as motorists buying fuel in filling stations, household electricity bills, coal briquette prices in supermarkets, etc. The prices may also be in local currency units or in US Dollars.

Electricity prices are prices charged to the industrial, commercial, residential rates and rates to other consumers. Commercial sector include the government services and streetlights. Others include agriculture and other sectors not included in industrial, commercial and residential.

## D. Definition of Columns and Rows of the Energy Balance Table

### DEFINITION OF COLUMNS AND ROWS OF THE ENERGY BALANCE TABLE

#### 1. Unit

For the purpose of presenting its energy balances APEC has adopted kcal and Joules.  $10^7$  kcal (41.863 gigajoules) is equivalent to one ton of oil equivalent (toe). This quantity of energy is, within a few percent, equal to the net heat content of 1 ton of crude oil.

#### 2. Conversion (from original to TOE)

The Coordinating Agency has adopted specific factors supplied by the member economies for each flow or use. The balances are expressed in term of "net" heat value. The difference between the "net" and "gross" heat value for each fuel is the latent heat in condensation of the

water vapor produced during combustion of the fuel. For coal and oil, net heat value is 5 percent less than gross, for most forms of natural and manufactured gas the difference is 9-10 percent, while for electricity there is no difference. The use of net heat value is consistent with the practice of the Statistical Offices of the European Communities and the United Nations.

#### 3. Layout

The energy balances are presented in tabular format: columns for the various sources of energy and rows for the different origins and uses.

### COLUMNS

Across the top of the table from left to right, there are thirteen columns with the following headings:

**Column 1:** Coal includes all primary coal, such as anthracite, coking coal, other bituminous coal, sub-bituminous coal, lignite and peat.

**Column 2:** Coal Products includes all fuels derived from coal including patent fuel, coke oven coke, gas coke, briquettes, coal tar, coke oven gas, blast furnace gas and oxygen steel furnace gas.

**Column 3:** Crude Oil comprises crude oil, refinery feedstocks and natural gas liquids. Natural LPG is included in LPG.

**Columns 4 and 4.1 to 4.10:** Petroleum products (Column 4) comprises motor gasoline, naphtha, jet fuel, kerosene, gas/diesel oil, residual fuel oil, LPG, refinery

gas, ethane and other petroleum products such as: aviation gasoline, white spirit, lubricants, bitumen, paraffin waxes and petroleum coke (Columns 4.1 to 4.10). The definitions of these products are in Appendix A.

**Column 5:** Gas includes natural gas and LNG (excluding natural gas liquids).

**Column 6:** Hydro shows the energy content of the electricity produced in hydro power plants. Hydro output includes output from pumped storage plants.

**Column 7:** Nuclear shows the primary heat equivalent of the electricity produced by a nuclear power plant with an average thermal efficiency of 33 percent.

**Column 8:** Geothermal, solar, etc shows the primary heat equivalent of the electricity produced in geothermal

plants with an average thermal efficiency of 10 percent, and the energy content of electricity produced in non-thermal power plants such as photovoltaic, wind, tide wave etc.

**Column 9:** Others includes wood, wood waste, black liquor, industrial and municipal waste and biomass (power generation from other fuel sources such as defined in "Others" energy. is included here).

**Column 10:** Electricity shows final consumption and

trade in electricity (which is accounted at the same heat value as electricity in final consumption; i.e. 1 GWh = 0.000086 MTOE).

**Column 11:** Heat includes heat production from public Combined Heat Power plants (CHP), from autoproducer's heat that is sold to a third party (e.g. to a network).

**Column 12:** TOTAL = the total of columns (1) to (11).

## ROWS

The categories on the left hand side of the table have the following functions.

**Row 1:** Indigenous production shows only production of primary energy, i.e. hard coal, lignite, crude oil, NGL's natural gas, hydro and nuclear, geothermal etc. electricity and others.

**Row 2/3:** Imports and exports comprise amounts having crossed the boundaries of the economy whether or not customs clearance has taken place.

**Row 4/5:** International marine and Aviation bunkers cover those quantities delivered to sea-going ships and International flights of all flags. Consumption by ships and planes engaged in transport in inland and coastal waters is not included.

**Row 6:** Stock changes are treated as follows: a decrease in stocks, shown in the table as a positive number, is added to supply and an increase in stocks, shown as a negative number, is deducted from supply. Producers', importers', energy transformation industries' and large users' stocks are included.

**Row 7:** Total primary energy supply (TPES) are made up of indigenous production (Row1) + imports (Row2)

-exports (Row3) – international marine bunkers (Row4) and ± stock changes (Row5).

**Row 8:** Transfers refer to Interproduct Transfers, Product Transferred, liquid products from Gas Separation and Recycled Products as defined in Appendix B.

**Row 9:** Total Transformation Sector is made up of Main Activity Producer (Row10) + Autoproducers (Row11) + Gas Processing (Row12) + Petroleum Refineries (Row13) + Coal Transformation (Row14) + Other Transformation (Row15).

**Row 10:** Main Activity Producer, column 1 to 9 show primary and secondary fuel input to public utilities' plants as negative entries. Gross electricity produced (including power stations' own consumption) appears as a positive quantity in column 11, "Electricity". Transformation losses appear in the "Total", column 12, as a negative number.

**Row 11:** Autoproducers, columns 1 to 9 show primary and secondary fuel input to electricity generation of auto-producers as negative entries. 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 gross

electricity produced appears as a positive quantity in column 10, "Electricity". Transformation losses appear in the "Total", column 12 as a negative number.

**Row 12:** Where there is a production of gas at Gas-to-Liquid Facilities, the treatment is similar to that for electricity generation, with the quantity produced appearing as a positive figure in column 5 "Gas", input as negative entries in column 1 (coal), 2 (coal products), 4 (petroleum products) and 5 (natural gas input) and conversion losses appearing in the "Total" column.

**Row 13:** The row Petroleum refineries shows the transformation of crude oil, NGL and condensate to petroleum products.

**Row 14:** Coal transformation shows the transformation of coal from primary to secondary fuels and from secondary to tertiary fuels (hard coal to coke, coke to blast furnace gas, brown coal to BKB, etc).

**Row 15:** Other Transformation: contains the energy feedstocks and outputs of petrochemical industry, bio-fuel processing, charcoal processing and other transformation processes that are not classified elsewhere.

**Row 16:** loss & Own use: Own use contains the primary and secondary energy consumed by transformation industries for heating, traction and lighting purposes. These are shown as negative figures. Included here are, for example, the coal mines' own use of energy, energy use in refineries, electricity plants' own consumption (which includes gross electricity consumed for pumped storage), and energy used for oil and gas extraction (which also includes consumption for the pipeline system). Loss include losses in gas distribution, electricity transmission, and coal transport.

**Row 17:** Discrepancy is a category which includes the sum of the unexplained statistical differences for individual fuels.

**Row 18:** Total Final Consumption (TFC) is the sum of consumption by the different end-use sectors. In final consumption, petrochemical feedstocks as well as natural gas for producing fertilizer are shown under industry sector.

**Row 19:** Consumption of the Industry sector (energy used for transport by industry is not included here but reported under transport).

**Row 20:** Iron and Steel Covers ISIC Group 271 and Class 2731. Report pulverised coal injection (PCI) into blast furnaces under blast furnaces, Transformation sector. To avoid double counting, fuels used in blast furnaces should be reported in the Transformation sector. (NACE Divisions 27.1, 27.2, 27.3, 27.51, and 27.52).

**Row 21:** Chemical & Petrochemical Refers to ISIC Division 24 (NACE Division 24).

- Includes manufacture of basic chemicals (ISIC 241)
- Other chemical products (ISIC 242), Man-made fibers (ISIC 243)

**Row 22:** Non-metallic Minerals covers ISIC Division 26, i.e.: Glass, ceramic, cement and other building materials industries. (NACE Division 26).

- Manufacture of glass and glass products (ISIC 261)
- Non-metallic mineral products (ISIC 262) such as ceramics, tiles, baked clay products and cement

**Row 23:** Other Industries cover consumption of all other manufacturing industries, mining, querying and constructions.

**Row 24:** The Transport sector includes all fuels for transport, except international marine bunkers. It includes transport in the industry sector and covers road, railway, domestic air transport, inland waterways (including small craft, fishing vessels and coastal shipping not included under marine bunkers) and non-specified transport.

**Row 25:** Domestic Air Transport refers to domestic

aircraft - commercial, private, agricultural, etc.; include oil used for purposes other than flying, e.g. bench-testing of engines. Military use of aviation fuels also should be excluded here.

**Row 26:** Road covers transport by road vehicles. It includes agricultural highway use, but excludes motor gasoline used in stationary engines (included in the Other sector) and diesel oil for non-highway use in tractors (included in Agriculture). Lubricants for use in road vehicles should be included here. Bitumen for use in road surfacing and gas oil used in engines at construction sites should not be included here but should be included in the Industry subsector "Construction" below.

**Row 27:** Rail refers to rail traffic, including industrial railways.

**Row 28:** Inland Waterways refers to water vessels navigating in inland waterways and coastal shipping. For example: small craft, barges, and those coastal ships which do not travel for international transportation.

**Row 29:** Pipeline Transport refers to transport of goods through pipelines.

**Row 30:** Non-Specified Industry covers transport activities not included elsewhere.

**Row 31:** Other sectors cover agriculture, residential, commercial and public services and non-specified consumption.

**Row 32:** Refers to all households including "households with employed persons." ISIC Division 95 (NACE Division 95).

**Row 33:** These refer to business and offices in the public and private sectors.

**Row 34:** Consumption of the Agriculture sector.

**Row 35:** Other shows non-specified use which may include military use.

**Row 36:** Non-energy use covers use of coal, gas and petroleum products such as white spirit, paraffin waxes, lubricants, bitumen and other products. Petroleum coke is shown as non-energy use only when there is evidence of such use; otherwise it is shown under energy use in industry or other sectors. Feedstocks for the petrochemical industry are accounted for in industry (row 21). This covers all oil including naphtha, except the other petroleum products listed above, and gas used as petrochemical feedstock. Gas used as raw material for chemical products such as methanol and ammonia/urea is also included.

## E. Conversion Factors

### 1. Coal

Coal has separate factors for production, imports, exports, inputs to power plants, coal used in coke ovens, and coal used in industry. Each economy's individual conversion factors are applied.

### 2. Crude Oil

The conversion factors of each economy are applied as shown in the table of conversion factors.

### 3. Petroleum Products

The conversion factors of each economy are applied.

### 4. Gas

To convert the gross heat content of a gas to its net heat content, the following multiplying factors were used:

Natural Gas	0.9
Gas Works Gas	0.9
Coke Oven Gas	0.9
Blast Furnace Gas	1.0

### 5. Electricity

Figures for electricity production, trade, and final consumption are calculated using the energy content of the electricity, i.e. at a rate of 1 TWh = 0.086 MTOE. Hydro-electricity production (excluding pumped storage) and electricity produced by other non-thermal means,

(wind, tide, photovoltaic etc) are accounted for similarly using 1 TWh = 0.086 MTOE. However, the primary energy value ascribed to nuclear power plants is calculated from the gross generation by assuming that only 33% of the primary energy content appears as electricity, i.e. 1 TWh = (0.086/0.33) MTOE. In the case of electricity produced from geothermal heat the primary value is calculated using 1 TWh = (0.086/0.1) MTOE.

### 6. Heat

Information on heat is supplied in net kilocalories.  $10^{10}$  kilocalories = 1 MTOE

### 7. Others

The conversion factors used for other energy, such as wood, wood waste, black liquor etc. are those that are provided by each economy. In cases where the member economies cannot provide a conversion factor, the CA used the following net calorific values:

Fuel Wood and Wood Waste:	3,702 kcal/kg
Bagasse:	1,959 kcal/kg
Charcoal:	6,898 kcal/kg
Industrial Waste:	3,344 kcal/kg
Municipal Solid Waste:	3,344 kcal/kg
Other Biomass:	2,986 kcal/kg

**Average Net Calorific Values of Energy Products in 2012**

	Australia	Brunei	Canada	Chile	China	Hong Kong	Indonesia	Japan	Korea
<b>Coal</b>									
Coking Coal	6,807		6,026	6,829	5,775			6,581	6,740
Anthracite			6,301		6,565	6,998		6,105	4,742
Other Bituminous Coal	6,138		5,785	5,660	5,073	6,298		5,832	5,890
Sub-bituminous Coal	4,413		4,356				5,880	5,106	5,100
Lignite	2,341		3,412		3,363				
Peat									
<b>Coal Products</b>									
Patent Fuels								6,196	4,450
Coke Oven Coke	6,449		6,558	6,796	6,800			6,666	6,900
Coal Tar				9,984	8,000				
Coal Briquettes	5,015				4,170		4,740		
<b>Crude Oil and NGL</b>									
Crude Oil	10,334	10,748	10,220	10,323	10,000			10,139	10,199
Natural Gas Liquids	10,846	10,900	10,801	11,487				11,204	
Refinery Feedstocks	10,338		10,151					10,346	10,700
Additives/Oxygenates	6,787	9,597	6,800						
Other Hydrocarbons		11,023	10,000						
<b>Petroleum Products</b>									
Refinery Gas	11,488	11,369	11,488	11,488	11,000			10,515	11,488
Ethane	11,799		11,799						
LPG	11,393	11,023	11,297	11,297	12,000	10,999	11,934	11,529	11,393
Naptha	10,318		10,748	10,748	9,176	10,540	11,064	10,346	10,318
Motor Gasoline	10,653	10,688	10,700	10,700	10,300	10,217	11,064	10,654	10,653
Bio-ethanol	6,401		6,401				3,702		
Aviation Gasoline	10,653		10,700	10,700			9,801		10,653
Gasoline Type Jet Fuel			10,700		10,300				
Kerosene Type Jet Fuel	10,629	10,648	10,653	10,653	10,300	10,262	10,398	10,633	10,629
Other Kerosene	10,247	10,646	10,461	10,461	10,300	10,522	10,212	10,232	10,247
Gas/Diesel Oil	10,175	10,361	10,175	10,342	10,200	10,150	9,166	10,338	10,175
Bio-diesel	8,790		10,350			9,028	3,702		9,126
Fuel Oil	10,175	9,714	9,602	9,602	10,000	9,912	10,319	10,566	10,175
White Spirit SBP	10,270		10,270		9,176				10,270
Lubricants	10,247	9,984	10,032		9,176		9,996	10,233	10,247
Bitumen	9,267	9,554	9,554		9,176				9,267
Paraffin Wax					9,176		9,996		9,554
Petroleum Coke	8,073		7,643	7,643	7,350			6,784	8,073
Other Products	9,554		9,554	9,554	9,310		9,996	9,284	9,554
<b>Natural Gas</b>									
Natural Gas	8,462	9,206	8,328	8,407	9,310	9,140	8,885	8,387	8,975
<b>New and Renewables</b>									
Fuel wood and Wood waste	3,701		3,701	3,701				3,702	3,701
Bagasse	1,958		1,958	1,958					1,958
Charcoal	7,357		7,357	7,357		6,998		6,898	7,357
Other Biomass	3,701		3,701	3,701			3,702		3,701
Biogas									
Industrial Waste	3,343		3,343	3,343	1,188			3,344	3,343
Municipal Solid Waste	3,343		3,343	3,343				3,344	3,343
Liquid Biofuels	6,787		6,800		9,028	9,166			9,126

Note: The Net Calorific Values are used to convert the unit of each product to tons of oil equivalent (toe). 1 toe =  $10^7$  kcal

## Average Net Calorific Values of Energy Products in 2012 (continued)

kcal/kg (kcal/m³ for Natural Gas)											
Malaysia	Mexico	New Zealand	Papua New Guinea	Peru	Philippines	Russia	Singapore	Chinese Taipei	Thailand	United States	Viet Nam (2010)
		7,020	7,127			6,807		6,660		6,700	5,600
						6,927		6,745	7,500	6,860	5,600
6,300		6,703		6,500		5,734		5,676	6,300	6,241	5,600
		4,889	4,927		5,278			4,672		4,539	
		3,368	3,474			3,563		3,957	2,656	3,310	
						2,380					5,600
		6,334		6,735			6,930	5,600	6,650	6,600	6,889
											5,600
											6,300
10,180	10,695	10,384	10,120	10,271	9,905	10,050	10,709	10,442	10,089	10,489	10,180
	9,918	10,929	10,120	10,601	7,694	10,010			11,757	10,996	
10,180		10,526								10,399	
		7,222									
		10,000									12,182
11,000	11,488	11,488	10,515	14,992		11,823		14,996		11,488	
	11,799					11,799				11,799	
10,880	11,297	11,393	11,393	11,080	10,760	10,987	11,923	11,893	11,778	11,297	10,900
	10,748		10,500	10,402	11,031	10,509	11,923	10,924		10,748	10,300
10,500	10,700	10,653	10,654	10,098	10,570	10,509	11,174	10,494	10,450	10,700	10,500
		6,400		6,344	7,083	6,400			10,319	6,388	
	10,700	10,653			10,894	10,509	11,174	10,669		10,700	
						10,509			10,485		
10,320	10,653	10,629	10,632	10,231	9,957	10,270	12,425	10,038	10,464	10,653	10,300
10,320		10,247	10,233			9,855	10,270	11,140	10,600	10,310	10,461
10,150	10,175	10,175	10,284	9,847	10,049	10,175	10,957	10,066	10,236	10,175	10,200
		10,350		12,171	9,416	8,790			10,112	9,777	
11,530	9,602	10,175	10,520	10,381	9,819	9,554	9,839	10,027	9,788	9,602	9,900
		10,270				10,414	10,320	11,538		10,270	
		10,032	10,240			10,032	10,320	9,600		10,032	10,300
	9,554	9,267			9,248	9,315	10,320	10,000		9,554	10,300
	9,554					9,554	10,320	10,664		9,554	
	7,643	8,073	8,078			7,643	10,320	8,200		7,643	10,300
10,150	9,554	9,554	9,602	9,951	9,864	9,554	10,320	12,496	9,788	9,554	10,300
8,385	8,627	8,275		9,657	8,292	8,218	8,385	9,000	8,617	8,200	9,000
	3,701	3,701		3,598	3,455	3,701		3,039	3,820	3,701	238,800
	1,958	1,958		1,499	2,166	1,958			1,800	1,958	
	7,357	7,357		6,558	6,313	7,357			6,900	7,357	
3,218	3,701	3,701		3,596	3,163	3,701			3,030	3,701	
								3,690	5,000		
	3,343	3,343				3,343				3,343	
	3,343	3,343			3,344	3,343	3,344	2,092	1,160	3,343	
8,789		7,300		10,498	8,618			10,210	10,334	6,631	

# APEC ENERGY STATISTICS 2012

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