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National Laboratory

KEY CHINA ENERGY STATISTICS 2016



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ENERGY TECHNOLOGIES AREA

Acknowledgments

This handbook summarizes key statistics from the ninth edition of the China Energy Databook (CED 9.0), which contains data through 2014 and in some instances, such as energy trade, through 2015. CED 9.0 is available at <https://china.lbl.gov/research-projects/china-energy-databook>.

Lawrence Berkeley National Laboratory's China Energy Group team responsible for this handbook includes David Fridley, Hongyou Lu, and Nina Khanna.

The team wishes to acknowledge the Energy Foundation China, whose grants through U.S. Department of Energy Contract No. DE-AC02-05CH11231, have enabled us to compile China-related energy statistics.

The China Energy Group plans to publish updates to this compilation annually, and thus are eager to learn about errors you may find, suggestions for improvement, and the most important data additions you would like to see.



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Forward

The China Energy Group at Lawrence Berkeley National Laboratory (LBNL) has been developing impactful, science-based energy and environmental solutions collaboratively with China since 1988.

Over these past three decades, the Group has gained recognition as a reliable and accurate source of China energy statistics critical for policy and business analysis through the publication of its China Energy Databook (CED), which was first released in 1992. CED 9.0, now available (<https://china.lbl.gov/research-projects/china-energy-databook>), is the most comprehensive and authoritative sourcebook of its kind on this topic.

The China Energy Group also publishes this companion, booklet of Key China Energy Statistics to provide executives, senior policy makers, and other interested parties with clearly-presented data on the supply, transformation, and consumption of all major energy sources in China.

We hope that you find this handbook and the companion CED 9.0 useful. The China Energy Group also uses its in-house detailed, bottom-up energy end-use model to analyze energy demand and supply options at national, sectoral, city, and technology levels to evaluate policy impacts and to develop mid- and long-term outlooks regarding China.

If you have any questions or further inquiries, please send an email to wyleung@lbl.gov.

Nan Zhou

Staff Scientist, Group Leader, China Energy Group

Director, U.S.-China Clean Energy Research Center for Buildings Energy Efficiency

Energy Analysis and Environmental Impacts Division, Energy Technologies Area, Lawrence Berkeley National Laboratory

nzhou@lbl.gov | <https://china.lbl.gov/>

Maps of China for Reference



2014 Highlights

- China's total primary energy consumption reached 4.26 billion tonnes of coal equivalent (tce), up 2.1% over 2013, and accounting for 23 percent of global energy consumption.
- Primary energy grew only 29 percent as fast as the rate of GDP growth
- China accounted for 27.5 percent of global energy-related CO₂ emissions.
- China's per capita CO₂ emissions were 6.6 tonnes/person, 49 percent above the world average but 59 percent below that of the United States.
- China accounted for over half of total world coal consumption.
- In contrast, China's oil consumption was 12 percent of world demand and natural gas was 5.5 percent.
- Since 2000, China's natural gas consumption grew at a rate of 15.3 percent per year.
- China's Western region continues to be the dominant source of increased production of oil and natural gas.
- China added 113 gigawatts (GW) of new power plant generation capacity, of which 48 percent was fossil-fuel-based. Wind power capacity rose by 20 GW and solar photovoltaic (PV) capacity by 9 GW. Wind generation accounted for 22 percent of the global total, and PV was 16 percent of the global total.
- Natural gas imports reached 60 billion cubic meters (m³), up 13 percent, including a 15 percent rise in pipeline gas from Central Asia, and a 10 percent increase in liquefied natural gas imports. Crude oil imports rose 9.5 percent to 6.7 million barrels/day, and coal imports fell 15 percent to 156 million tonnes.

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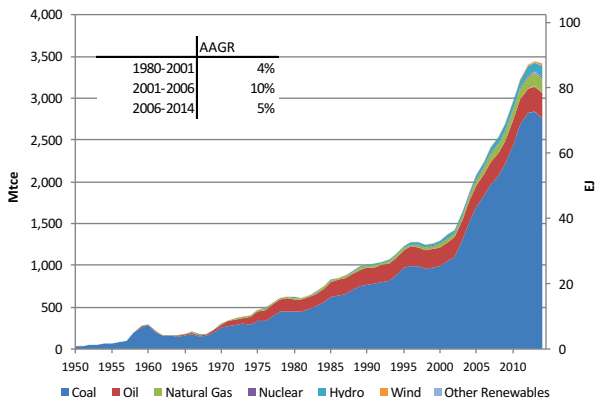
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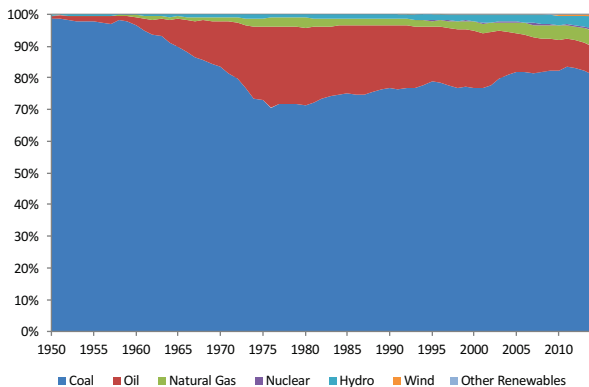
Supply



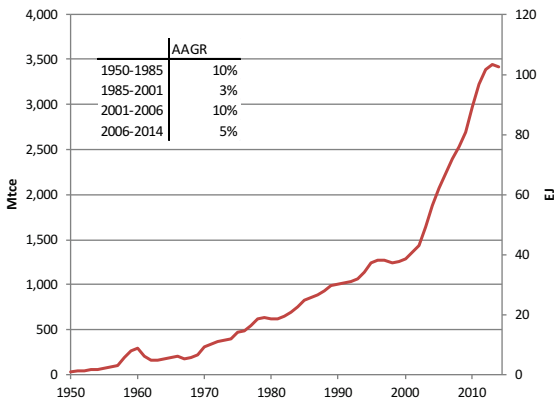
China's Total Primary Energy Production by Source (1950-2014)



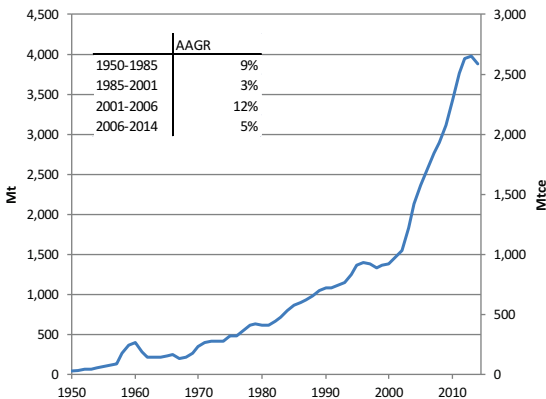
China's Total Primary Energy Production by Source Shares (1950-2014)



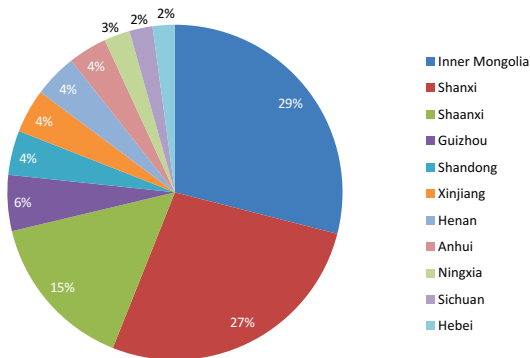
China's Total Primary Energy Production (1985-2014)



China's Total Coal Production (1985-2014)

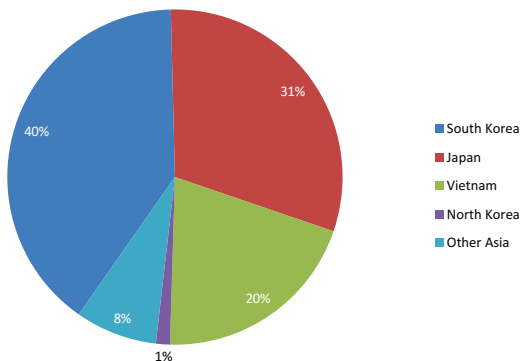


Coal Producing Provinces in China (2014)



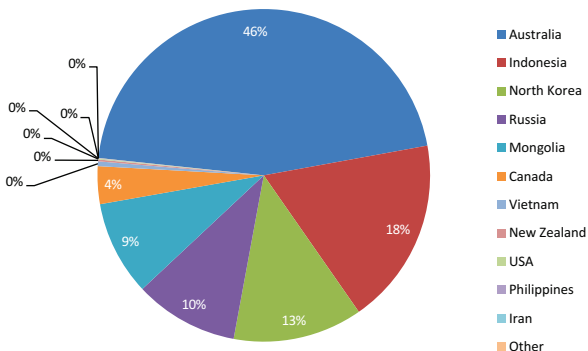
Total Coal Production: 3,874 Mt

China's Coal Exports (2015)



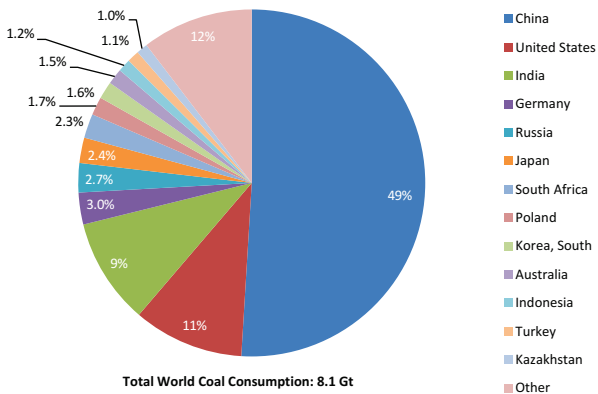
Total Coal Export: 5.33 Mt

China's Coal Imports (2015)



Total Coal Import: 156 Mt

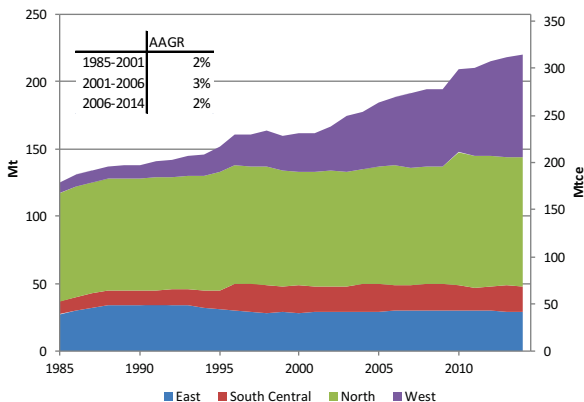
World Coal Consumption (2014)



Total World Coal Consumption: 8.1 Gt

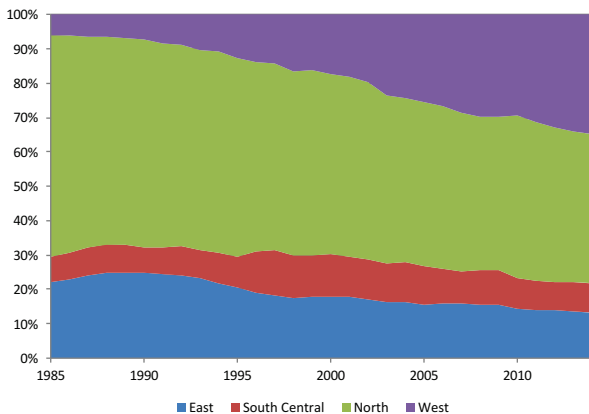
Total China Coal Consumption: 4.1 Gt

China's Crude Oil Production by Region (1985-2014)



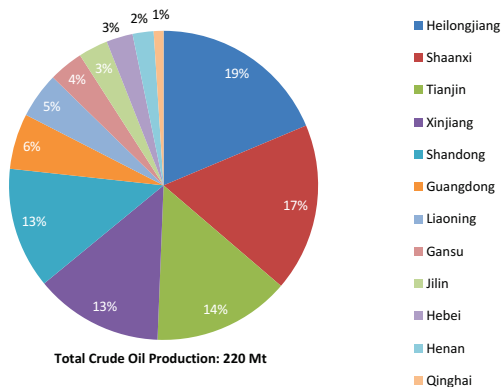
Note: The sum of reported provincial production exceeds the official national total.

China's Crude Oil Production by Regional Shares (1985-2014)

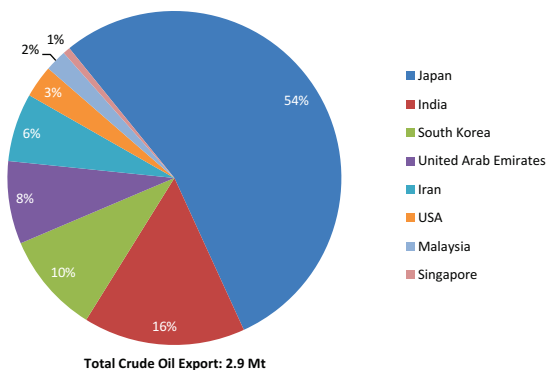


Note: The sum of reported provincial production exceeds the official national total.

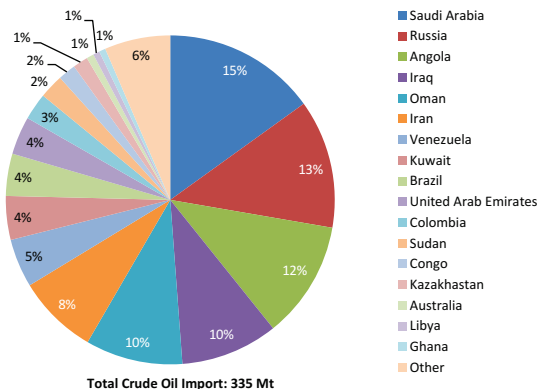
Crude Oil Producing Provinces in China (2014)



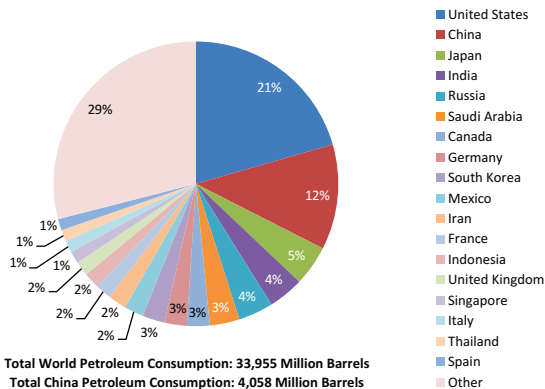
China's Crude Oil Exports (2015)



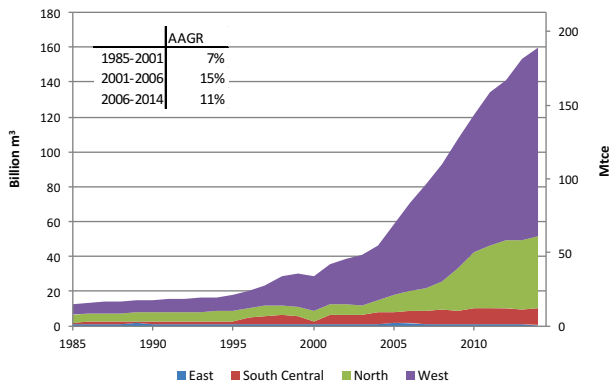
China's Crude Oil Imports (2015)



World Oil Consumption (2014)

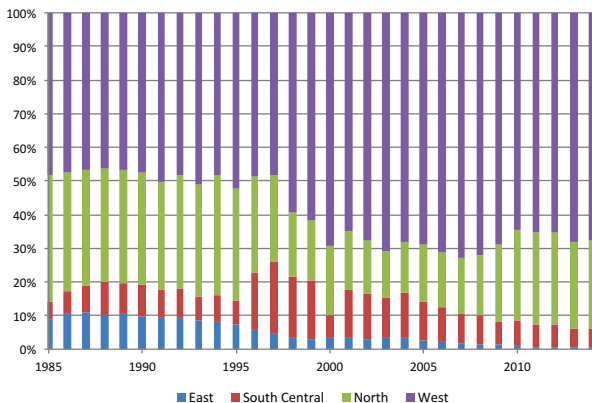


China's Natural Gas Production by Region (1985-2014)



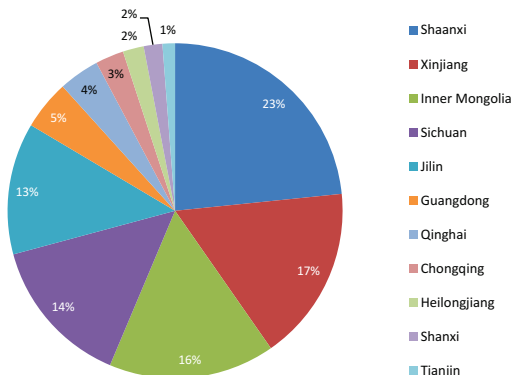
Notes: 1. Includes natural gas and coal-bed methane. 2. The sum of reported provincial production exceeds the official national total.

China's Natural Gas Production by Regional Shares (1985-2014)



Notes: 1. Includes natural gas and coal-bed methane. 2. The sum of reported provincial production exceeds the official national total.

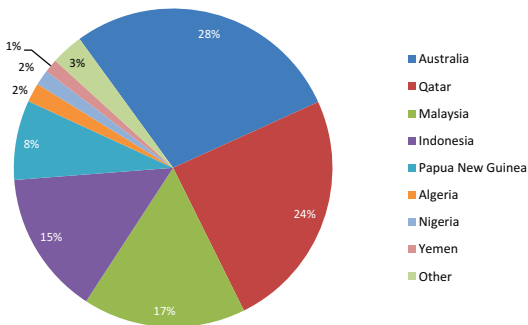
China's Natural Gas Producing Provinces (2014)



Total Natural Gas Production: 180 billion m³

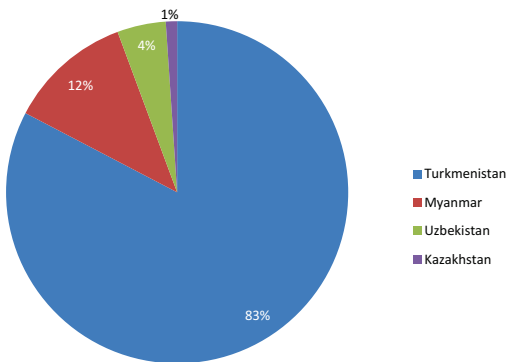
Note: Includes natural gas and coal-bed methane.

China's Liquefied Natural Gas Import (2015)



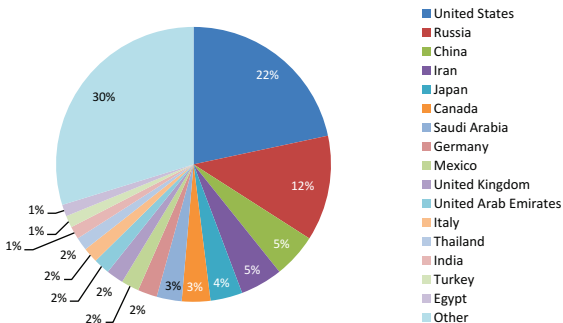
Total Liquefied Natural Gas Import: 19.66 Mt

China's Natural Gas Imports by Pipeline (2015)



Total Natural Gas Import by Pipeline: 34.67 billion m³

World Natural Gas Consumption (2014)



Total World Natural Gas Consumption: 3,478 billion m³

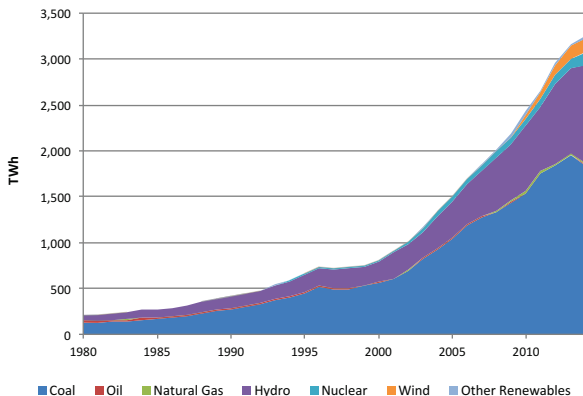
Total China Natural Gas Consumption: 181 billion m³



Transformation

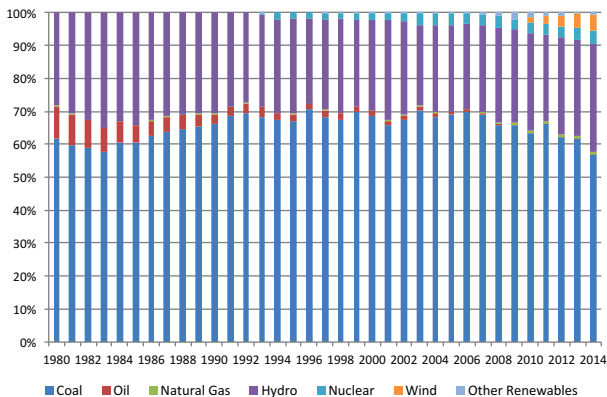


China's Electricity Production by Energy Source (1980-2014)



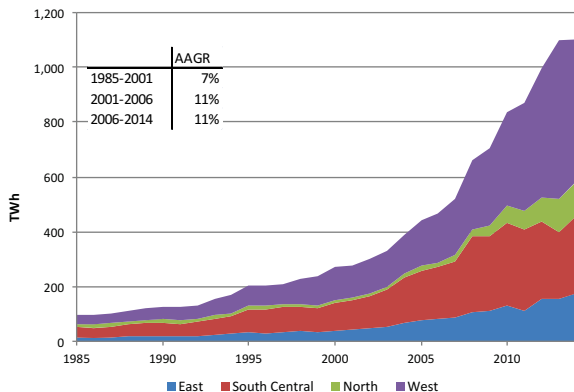
Notes: 1. Natural gas includes LNG. 2. Other renewables include solar, biomass, geothermal, and tidal.

China's Electricity Production by Source Shares (1980-2014)



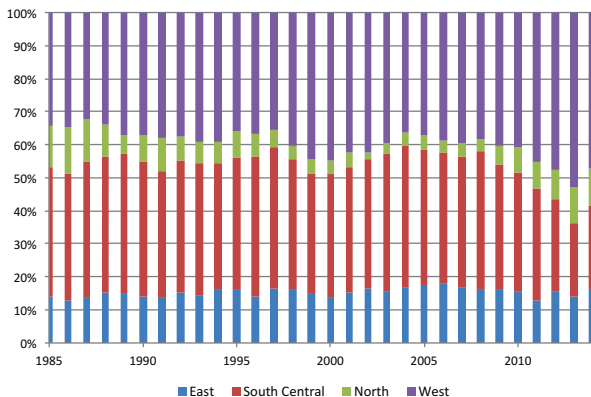
Notes: 1. Natural gas includes LNG. 2. Other renewables include solar, biomass, geothermal, and tidal.

China's Primary Electricity Generation by Region (1985-2014)



Note: Primary electricity includes nuclear, hydro, wind, solar, and other renewables.

China's Primary Electricity Production by Regional Shares (1985-2012)

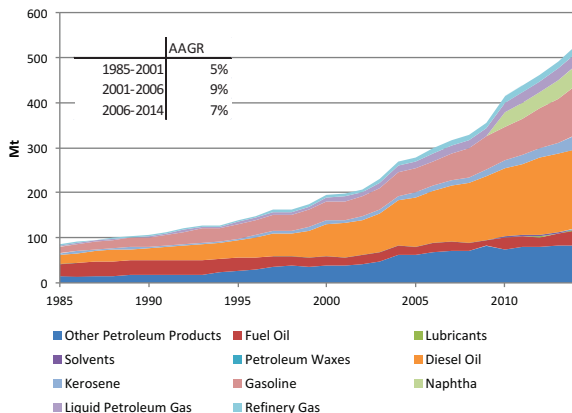


Note: Primary electricity includes nuclear, hydro, wind, solar, and other renewables.

China's Top 10 Primary Electricity Producing Provinces (2014)

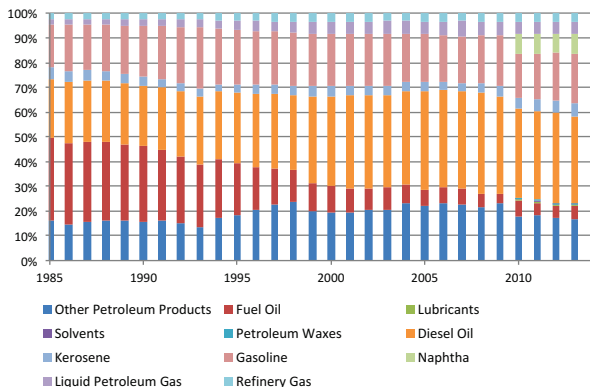
Region	Province	TWh	% of Total
West	Sichuan	249	21%
South Central	Hubei	142	12%
South Central	Guangdong	87	7%
West	Guizhou	70	6%
South Central	Guangxi	63	5%
East	Fujian	59	5%
South Central	Hunan	55	5%
East	Zhejiang	55	5%
West	Gansu	51	4%
West	Qinghai	47	4%
	Top 10 Total	879	74%
	Other	304	26%
	Total	1,182	100%

China's Oil Refining by Product (1985-2014)



Note: Beginning in 2010, "Other Petroleum Products" are further disaggregated.

China's Refinery Production by Product Shares (1985-2014)



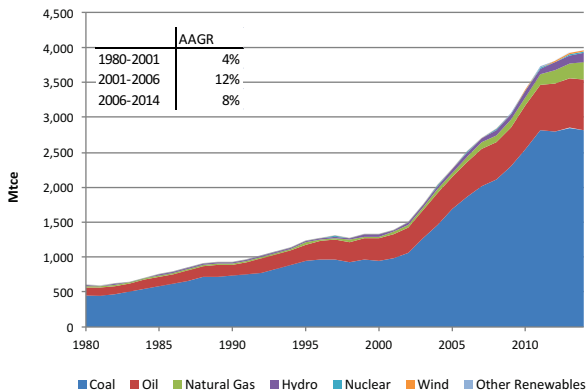
Note: Beginning in 2010, "Other Petroleum Products" are further disaggregated.



Consumption

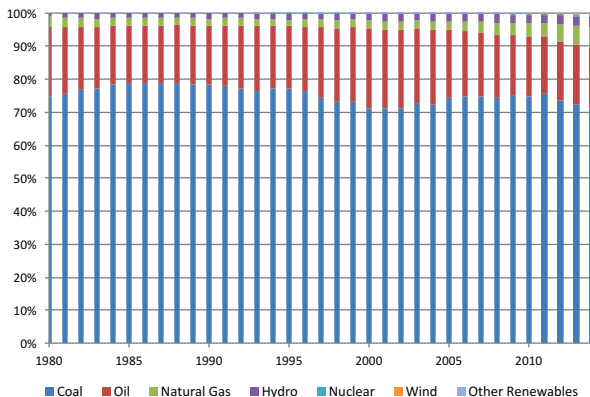


China's Total Primary Energy Consumption by Source (1980-2014)



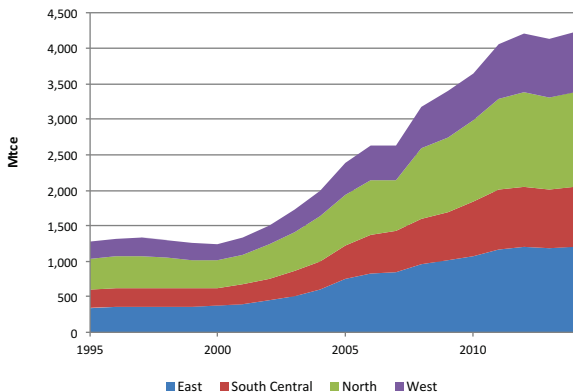
Note: Natural gas includes LNG. Primary electricity is converted at its calorific value (1 kWh = 0.1229 kgce).

China's Total Primary Energy Consumption by Source Shares (1985-2014)



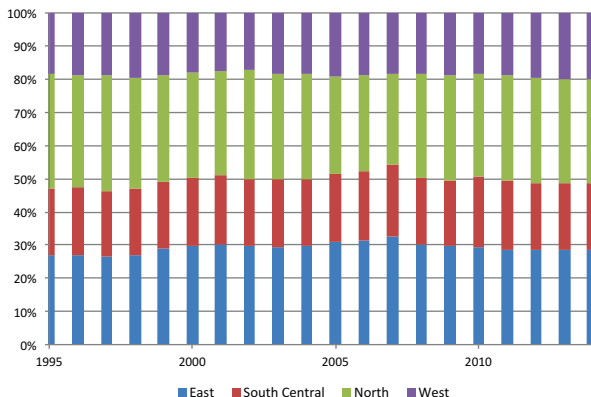
Note: Natural gas includes LNG. Primary electricity is converted at its calorific value (1 kWh = 0.1229 kgce).

China's Total Energy Consumption by Region (1995-2014)

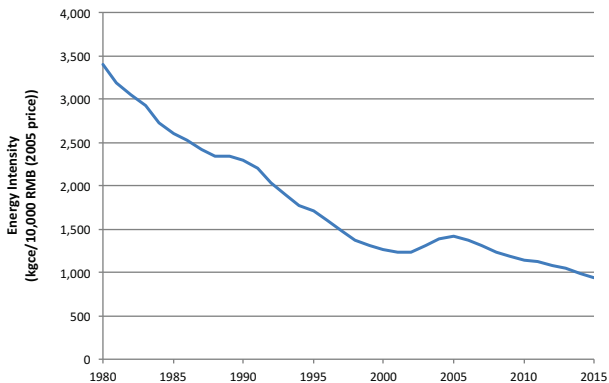


Note: The sum of provincial energy use does not match official national total energy use.

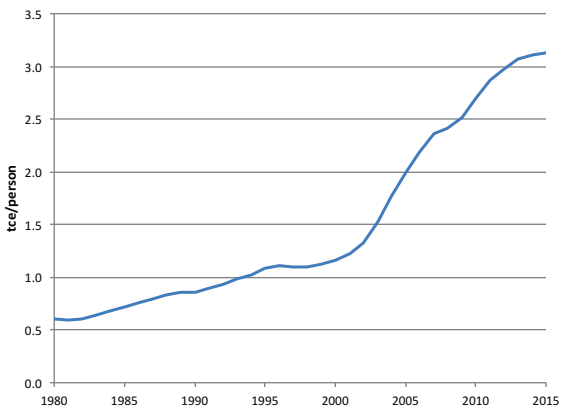
China's Total Energy Consumption by Regional Shares (1995-2014)



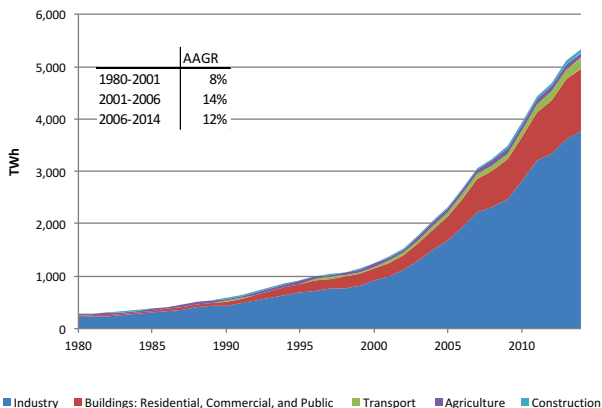
China's Energy Consumption per Unit of GDP (1980-2015)



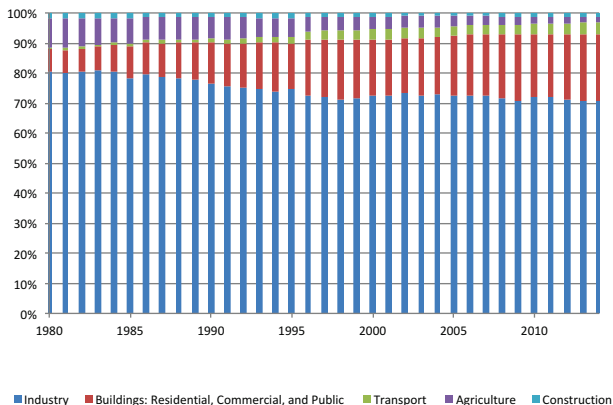
China's Energy Consumption per Capita (1980-2015)



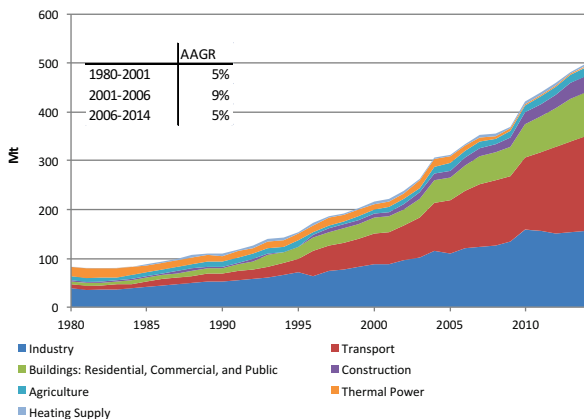
China's Electricity Consumption by End-Use Sector (1980-2014)



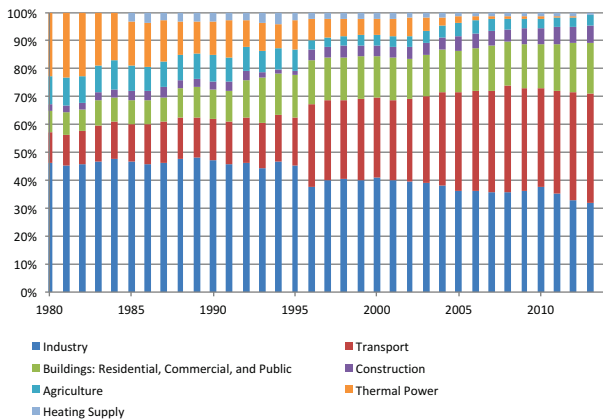
China's Electricity Consumption by Sectoral Shares (1980-2014)



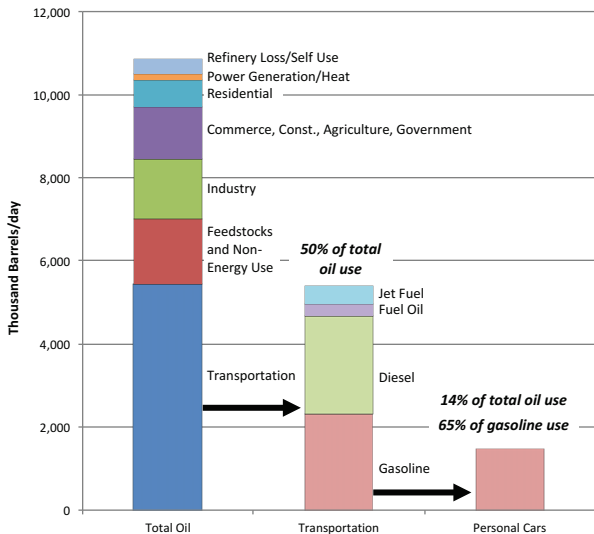
China's Oil Consumption by Sector (1980-2014)



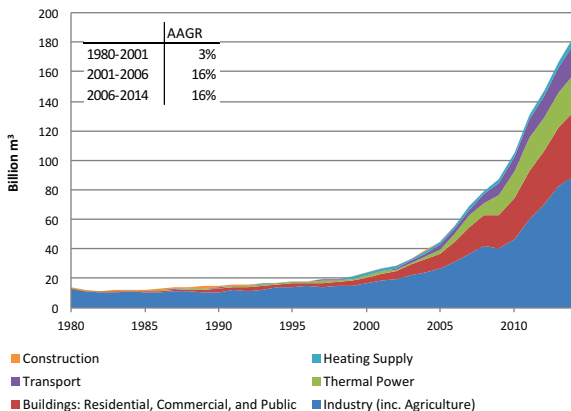
China's Oil Consumption by Sectoral Shares (1980-2014)



Composition of China Oil Use (2014)

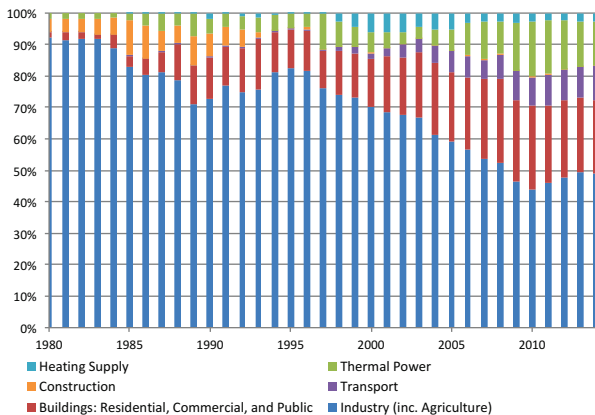


China's Natural Gas Consumption by Sector (1980-2014)



Note: Natural gas includes LNG.

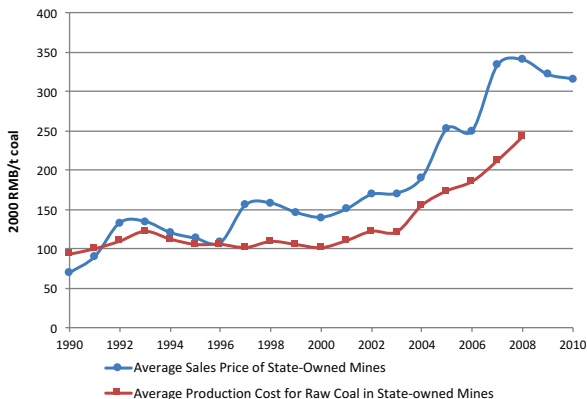
China's Natural Gas Consumption by Sectoral Shares (1980-2014)



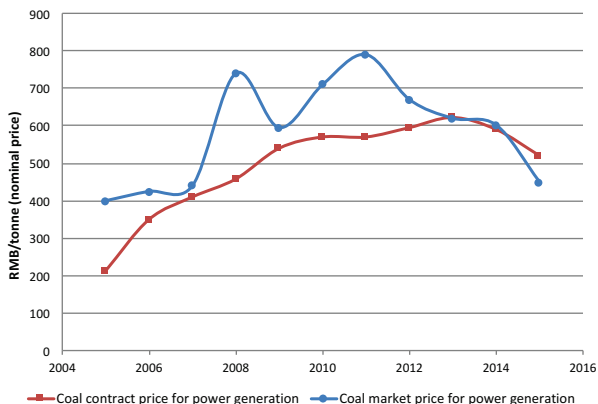
Note: Natural gas includes LNG.



China's Production Cost and Average Sales Price of State-Owned Coal Mines

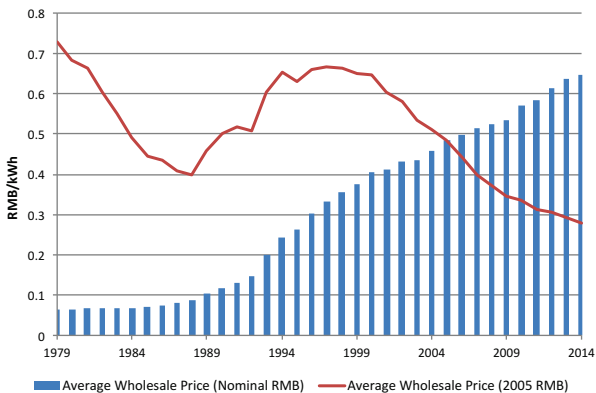


China's Average Coal Contract Price and Coal Market Price for Power Generation



Note: Beginning in 2012, the key contract coal price merged with the market coal price.

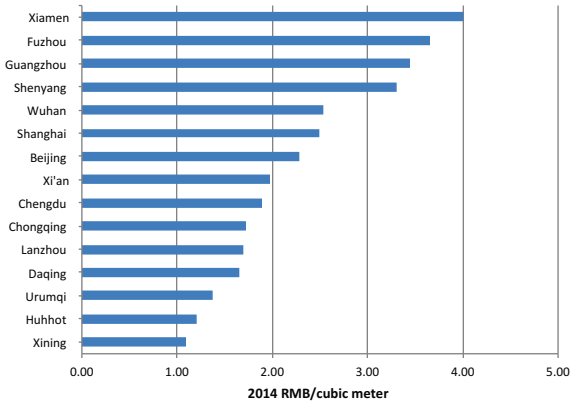
China's Average Wholesale Price of Electricity (1979-2014)



China's Average Residential Power Price by Province

Province	2015 (yuan/kWh)	2014 (yuan/kWh)
Guangdong	0.675	0.647
Hainan	0.632	0.633
Jiangxi	0.618	0.619
Hunan	0.607	0.607
Hubei	0.580	0.586
Shanghai	0.571	0.570
Anhui	0.569	0.569
Henan	0.563	0.570
Guangxi	0.563	0.461
Zhejiang	0.556	0.557
Fujian	0.551	0.557
Chongqing	0.537	0.538
Shandong	0.537	0.536
Jilin	0.535	0.534
Xinjiang	0.534	0.532
Gansu	0.526	0.526
Hebei (South Grid)	0.524	0.525
Sichuan	0.523	0.531
Jiangsu	0.518	0.520
Hebei (North Grid)	0.514	0.515
Liaoning	0.512	0.511
Shaanxi	0.507	0.507
Inner Mongolia (East)	0.507	0.504
Tianjin	0.503	0.502
Beijing	0.495	0.496
Shanxi	0.486	0.486
Guizhou	0.485	0.485
Heilongjiang	0.482	0.481
Yunnan	0.472	0.476
Ningxia	0.457	0.456
Inner Mongolia (West)	0.440	0.440
Qinghai	0.406	0.407
National Average	0.548	0.557

China's Residential Natural Gas Price by Province (May 2014)



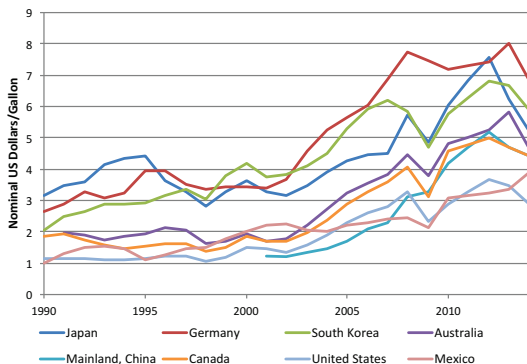
China's Non-Residential Natural Gas City-Gate Ceiling Prices by Province (2015)

Unit: RMB/cubic meter (includes value-added tax)

Province	Maximum Price
Beijing	2.00
Tianjin	2.00
Hebei	1.98
Shanxi	1.91
Inner Mongolia	1.34
Liaoning	1.98
Jilin	1.76
Heilongjiang	1.76
Shanghai	2.18
Jiangsu	2.16
Zhejiang	2.17
Anhui	2.09
Jiangxi	1.96
Shandong	1.98
Henan	2.01
Hubei	1.96
Hunan	1.96
Guangdong	2.18
Guangxi	2.01
Hainan	1.64
Chongqing	1.64
Sichuan	1.65
Guizhou	1.71
Yunnan	1.71
Shaanxi	1.34
Guansu	1.43
Ningxia	1.51
Qinghai	1.27
Xinjiang	1.15

Notes: 1. Effective since November 20, 2015. 2. Does not apply for shale gas, coal-bed methane, and coal-to-gas.

Retail Gasoline Price (Including Tax) in Selected Countries and Regions (1990-2014)



Note: Prices are those actually paid (i.e., net of rebates), and include transport costs and non-refundable taxes. Prices in national currencies are converted to U.S. dollars using exchange rates published by the International Monetary Fund.

China's Price Cap on the Highest Gasoline and Diesel Prices by Province and Major City (November 16, 2016)

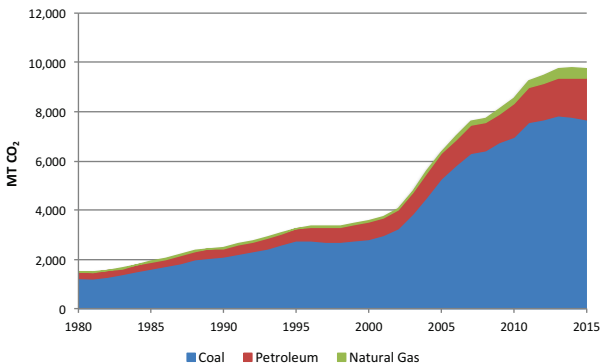
Province	Gasoline (RMB/t)	Diesel (RMB/t)
Beijing	7,370	6,395
Tianjin	7,335	6,360
Hebei	7,335	6,360
Shanxi	7,235	6,255
Liaoning	7,335	6,360
Jilin	7,165	6,200
Heilongjiang	7,165	6,200
Shanghai	7,350	6,365
Jiangsu	7,390	6,415
Zhejiang	7,390	6,415
Anhui	7,215	6,250
Fujian	7,410	6,425
Jiangxi	7,220	6,260
Shandong	7,345	6,370
Hubei	7,190	6,225
Hunan	7,230	6,285
Henan	7,185	6,220
Hainan	7,480	6,495
Chongqing	7,380	6,410
Guangdong	7,415	6,430
Guangxi	7,310	6,335
Ningxia	7,170	6,200
Gansu	7,150	6,220
Xinjiang	6,945	6,095
City	Gasoline (RMB/t)	Diesel (RMB/t)
Hohhot	7,180	6,215
Chengdu	7,385	6,435
Guiyang	7,345	6,360
Kunming	7,375	6,390
Xi'an	7,320	6,370
Xining	7,130	6,245



Emissions

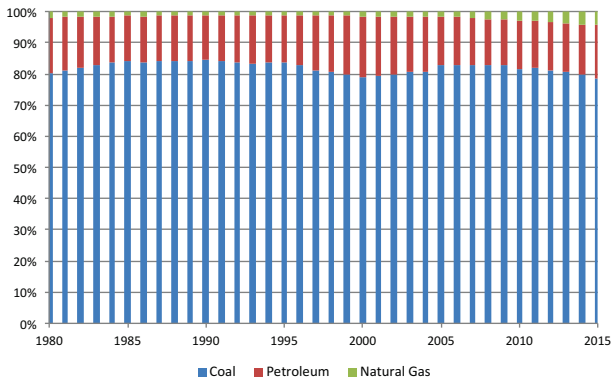


China's Fuel Combustion CO₂ Emissions by Fuel (1980-2015)



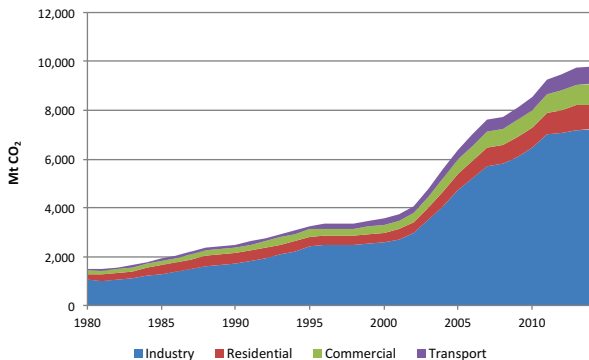
Note: Data based on total final consumption and energy used for energy transformation. CO₂ emissions are calculated using 2006 IPCC carbon emission factors. Emissions data include the sequestered carbon in non-energy use petroleum products such as asphalt and plastics.

China's CO₂ Emissions by Fuel Shares (1980-2015)



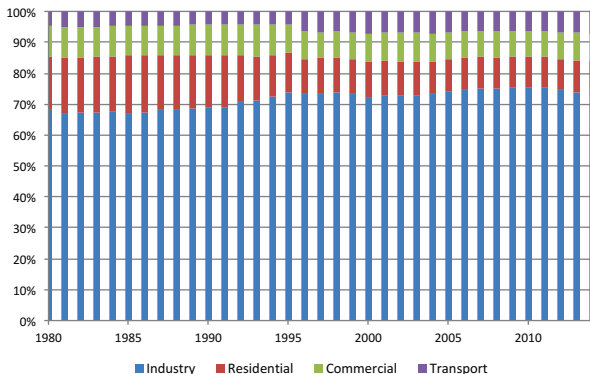
Note: Data based on total final consumption and energy used for energy transformation. CO₂ emissions are calculated using 2006 IPCC carbon emission factors. Emissions data include the sequestered carbon in non-energy use petroleum products such as asphalt and plastics.

China's Energy-Related CO₂ Emissions by Sector (1980-2014)




Note: Power sector emissions are allocated to end-use sectors in proportion to their electricity use.

China's Energy-Related CO₂ Emissions by Sectoral Shares (1980-2014)

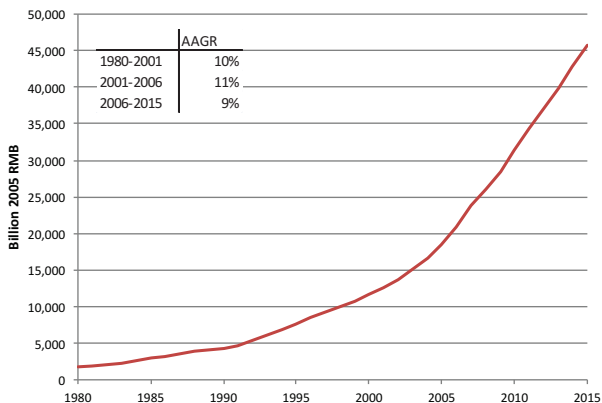


Note: Power sector emissions are allocated to end-use sectors in proportion to their electricity use.

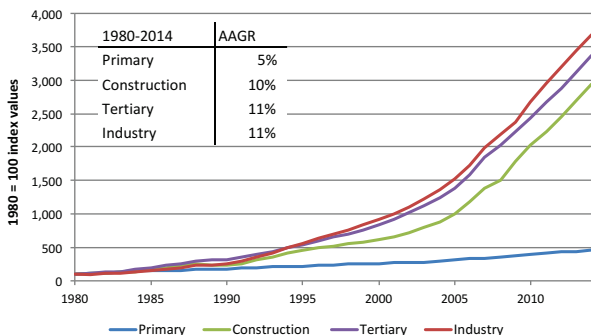


Economic and Demographic Indicators

China's Gross Domestic Product (GDP) (1980-2015)



China's GDP by Sector (1980-2014)

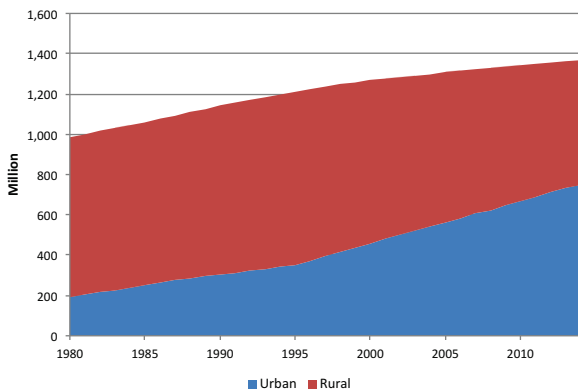


Primary — agriculture (farming, forestry, animal husbandry, sideline production and fishery).

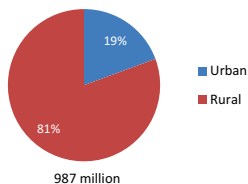
Construction — including preparation of land and construction, alteration, and repair of buildings,

structures, and other real property. **Tertiary** — all the other industries not included in primary, industry, and construction. **Industry** — including mining and quarrying, manufacturing, water supply, electricity generation and supply, steam, hot water and gas.

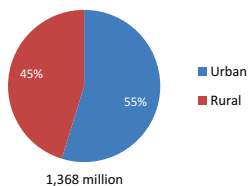
Growth of China's Population (1980-2014)



1980



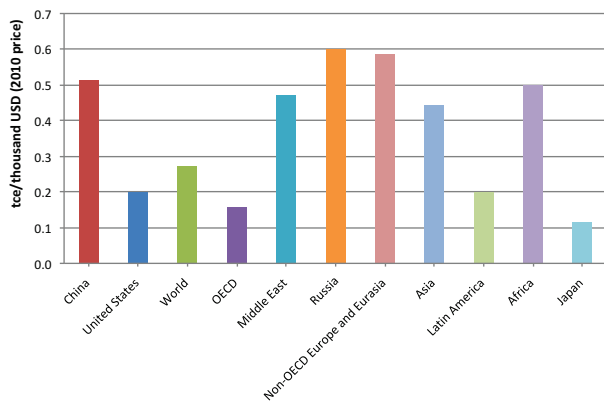
2014



A photograph of the International Space Station (ISS) in orbit above Earth. The station's complex structure, including multiple modules and large solar panel arrays, is clearly visible against the blackness of space. Below the station, the blue and white clouds of the Earth's atmosphere are seen from a high-angle perspective. A semi-transparent white horizontal band is overlaid across the middle of the image, containing the title text.

International Comparisons

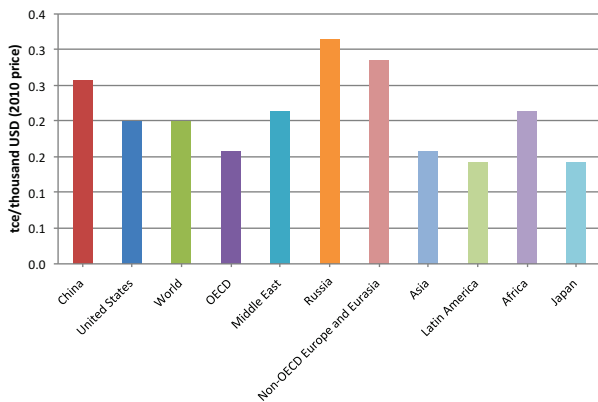
Total Primary Energy Production per GDP (MER*) (2014)



* Market Exchange Rates

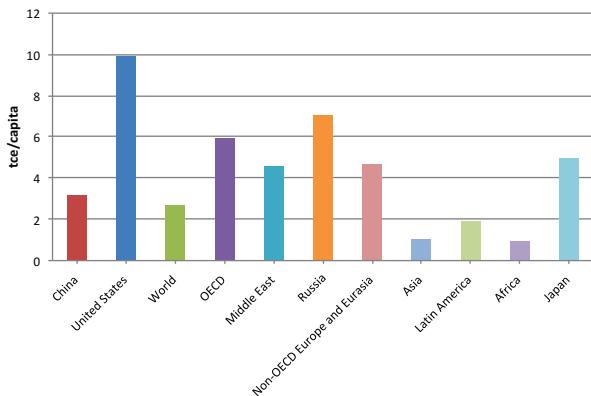
OECD: Members of the Organization for Economic Co-operation and Development

Total Primary Energy Production per GDP (PPP**) (2014)

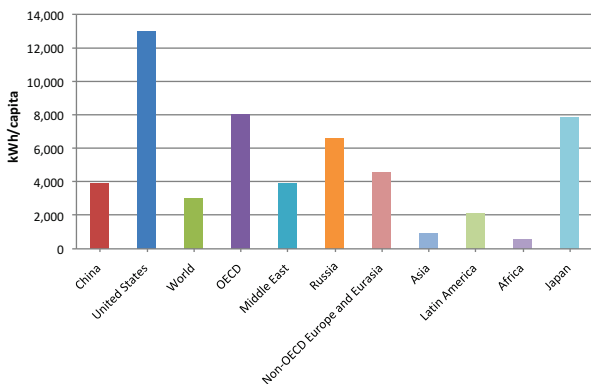


** Purchasing Power Parity

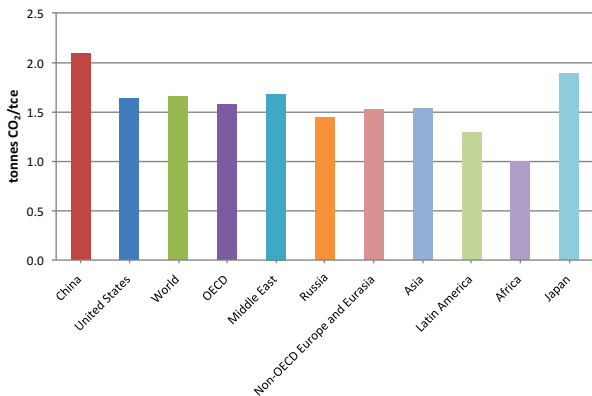
Total Primary Energy Production per Capita (2014)



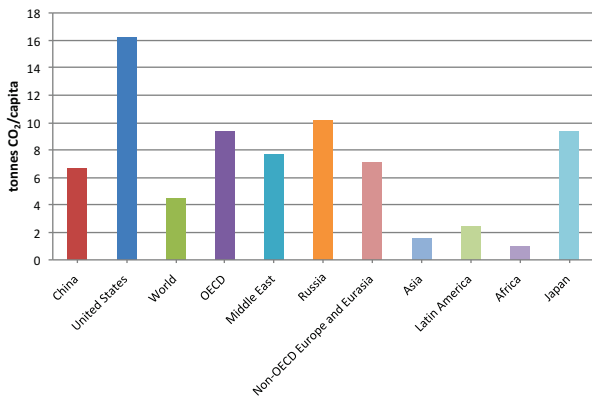
Electricity Consumption per Capita (2014)



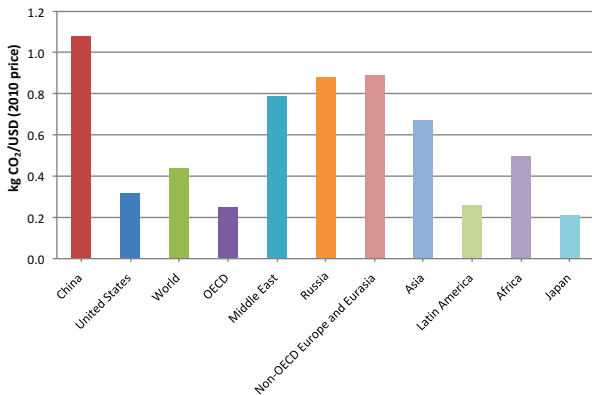
Energy-Related CO₂ Emissions per Total Primary Energy Supply (2014)



Energy-Related CO₂ Emissions per Capita (2014)

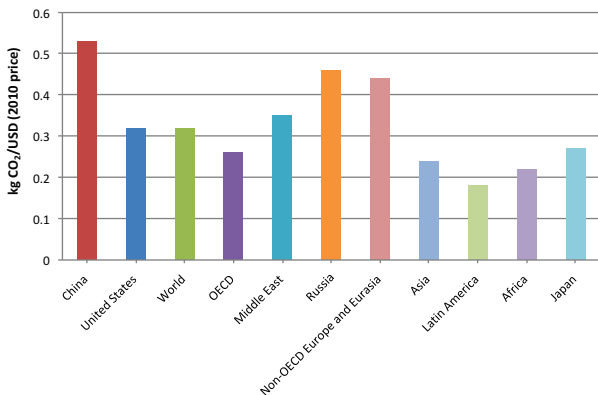


Energy-Related CO₂ Emissions per GDP (MER*) (2014)



* Market Exchange Rates

Energy-Related CO₂ Emissions per GDP (PPP**) (2014)



** Purchasing Power Parity

Appendix 1: Table of Abbreviations

Abbreviation	Definition
AAGR	average annual growth rate
bm ³	billion cubic meters
bm ³ /yr	billion cubic meters/year
CED	China energy databook
CO ₂	carbon dioxide
EJ	exajoule (10 ¹⁸ joules)
GDP	gross domestic product
Gt	giga (billion) tonnes
GW	gigawatts
GWh	gigawatt-hour
IPCC	Intergovernmental Panel on Climate Change
kgce	kilogram of coal equivalent
kgce/cap	kilogram of coal equivalent/capita
kWh	kilowatt-hour
kWh/cap	kilowatt-hour/capita
LNG	liquefied natural gas
m ³	cubic meter
Mt	million tonnes
Mt/yr	million tonnes/year
Mtce	million tonnes of coal equivalent
Mtce/yr	million tonnes of coal equivalent/year
MWh	megawatt-hours
MWh/t	megawatt-hour/tonne
MWh/yr	megawatt-hour/year
OECD	Organization for Economic Co-operation and Development
PPP	purchasing power parity
RMB	renminbi (Chinese currency)
RMB/kWh	renminbi/kilowatt-hour
RMB/m ³	renminbi/cubic meter
RMB/tce	renminbi/tonnes of coal equivalent
tce	tonnes of coal equivalent
TWh	terawatt-hour

Appendix 1: Glossary

Coal	Coal includes both primary (raw coal, cleaned coal, washed coal, briquettes) and derived fuels (coke, coke oven gas, and other coking products).
Crude Oil	Crude oil includes crude oil, natural gas liquids, refinery feedstock, additives, and other hydrocarbons.
Petroleum Products	Petroleum products include gasoline, kerosene, diesel oil, fuel oil, LPG, refinery gas, and other petroleum products.
Gas	Gas includes natural gas.
Nuclear	Nuclear is the primary heat equivalent of the electricity produced by a nuclear power plant.
Hydro	Hydro is the energy content of the electricity produced by a hydro-electric power plant.
Indigenous Production	Indigenous production is the production of primary energy in China.
International Marine Bunkers	International marine bunker cover those quantities delivered to sea-going ships of all countries, including warships.
Region - East	The east region of China is defined to include provinces of Anhui, Fujian, Jiangsu, Jiangxi, Shandong, and Zhejiang.
Region - West	The west region of China is defined to include cities and provinces of Gansu, Ningxia, Qinghai, Shaanxi, Xinjiang, Chongqing, Guizhou, Sichuan, Tibet, and Yunnan.
Region - North	The north region of China is defined to include cities and provinces of Beijing, Hebei, Inner Mongolia, Shanxi, Heilongjiang, Jilin, and Liaoning.
Region - South	The south region of China is defined to include provinces of Guangdong, Guangxi, Hainan, Henan, Hubei, and Hunan.

Appendix 1: Glossary *(continued)*

Stock Changes	Stock changes reflect the difference between opening stock levels on the first day of the year and closing stock levels of the last day of the year of stocks on national territory held by producers, importers, energy transformation industries, and large consumers.
Total Primary Energy Supply	Total primary energy supply equals to the total of indigenous production and imports, and minus exports and international marine bunkers and plus stock changes.
Transformation	Transformation includes the conversion of primary energy into secondary energy carriers such as electricity and oil products.
Statistical Differences	Statistical differences is a category that includes the sum of unexplained statistical differences for individual fuels.
Distribution and Transmission Losses	Distribution and transmission losses are losses in gas distribution, electricity transmission, and coal transport.
Total Final Consumption	Total final consumption is the sum of consumption by end-use sectors.

Appendix 2: Conversion Factors from Physical Unit to Coal Equivalent

For this energy form...	1 unit of	equals in Mtce
Coal Total	Mt	0.714
Raw Coal	Mt	0.714
Cleaned Coal	Mt	0.9
Other Washed Coal	Mt	0.525
Briquettes	Mt	0.6
Coke	Mt	0.971
Coke Oven Gas	Billion m ³	0.593
Other Gas	Billion m ³	0.288
Other Coking Products	Mt	1.107
Petroleum Products	Mt	1.43
Crude Oil	Mt	1.429
Gasoline	Mt	1.471
Kerosene	Mt	1.471
Diesel Oil	Mt	1.457
Fuel Oil	Mt	1.429
LPG	Mt	1.714
Refinery Gas	Mt	1.571
Other Petroleum Products	Mt	1.31
Natural Gas	Billion m ³	1.33
Heat	TJ	3.4 X 10 ⁻⁵
Heat	PJ	0.034
Electricity	TWh	0.123
Electricity	GWh	1.23 X 10 ⁻⁴
Thermal Power	TWh	0.404
Thermal Power	GWh	4.04 X 10 ⁻⁴
Total Power	TWh	0.404
Total Power	GWh	4.04 X 10 ⁻⁴
Other Energy	Mt	1
Fuelwood	Mt	0.571
Crop Residues	Mt	0.43
Dried Dung	Mt	0.471

Appendix 3: Energy Balance/China 2014 Standard Quantity (Mtce)

	Total Coal	Coal Raw	Coal Cleaned	Coal Washed	Coal Briquettes	Gangue
Total Primary Energy Supply	2,940.49	2,946.14	(3.27)	(2.19)	(0.06)	
Indigenous Production	2,765.98	2,765.98				
Indigenous Production - Hydro Power						
Indigenous Production - Nuclear Power						
Indigenous Production - Wind Power						
Import	207.93	207.90				0.02
Chinese Vessels Refueling Abroad						
Export	(4.10)	(4.00)				(0.08)
Foreign Vessels Refueling in China						
Stock Change	(29.32)	(23.75)	(3.27)	(2.19)	(0.00)	
Total Transformation	(2,110.37)	(2,253.20)	58.33	60.90	11.55	(0.03)
Thermal Power	(1,317.51)	(1,299.09)	(0.29)	(13.37)		(6.37)
Heating Supply	(160.26)	(155.08)	(0.35)	(3.60)		(1.65)
Coal Washing	(166.90)	(733.04)	557.79	90.91		7.98
Coking	(449.06)	(55.14)	(495.81)	(0.43)		
Petroleum Refineries	(4.64)	(3.28)	(1.62)	(0.06)		
Petroleum Refineries - Petroleum Products Input						
Gas Works	(6.77)	(5.63)	(1.39)	(0.03)		
Gas Works - Coke input						
Natural Gas Liquefaction						
Briquettes	(5.22)	(1.94)		(12.52)	11.55	
Recovery of Energy						
Losses						
Total Consumption	828.55	691.39	55.00	58.76	11.44	
Agriculture	18.41	18.09		0.23		
Industry	677.78	553.52	54.85	52.39	7.98	
Industry - NonEnergy Use	62.44	55.12	5.96	1.91		
Construction	6.52	6.33	0.06	0.11		
Transportation, Telecommunications, Postal	3.98	3.69	0.09	0.17		
Wholesale, Retail Trade, and Catering Service	26.90	26.16		0.36	0.21	
Other	28.88	28.01		0.58	0.08	
Residential consumption	66.07	55.60		4.92	3.18	
Residential consumption - Urban	10.29	7.26		1.34	1.03	
Residential consumption - Rural	55.77	48.34		3.58	2.15	
Statistical Difference	1.57	1.54	0.06	(0.05)	0.04	(0.03)

Appendix 3: Energy Balance/China 2014

Standard Quantity (Mtce) *(continued)*

	Coke	Coke Oven Gas	Blast Furnace Gas	Converter Gas	Coal Gas not Coke Source	Coke Other Products
Total Primary Energy Supply	(10.55)					
Indigenous Production						
Indigenous Production - Hydro Power						
Indigenous Production - Nuclear Power						
Indigenous Production - Wind Power						
Import	0.00					
Chinese Vessels Refueling Abroad						
Export	(8.26)					
Foreign Vessels Refueling in China						
Stock Change	(2.29)					
Total Transformation	463.02	37.34	73.71	9.40	3.89	12.16
Thermal Power	(0.48)	(9.86)	(18.43)	(2.89)	(0.03)	
Heating Supply	(2.07)	(3.66)	(8.81)	(1.57)	(0.01)	
Coal Washing						
Coking	464.57	50.38				12.66
Petroleum Refineries						(0.65)
Petroleum Refineries - Petroleum Products Input						
Gas Works	1.33	0.47			3.93	0.32
Gas Works - Coke input	(0.32)					(0.16)
Natural Gas Liquefaction						
Briquettes						
Recovery of Energy			100.94	13.87		
Losses						
Total Consumption	452.38	37.32	73.50	9.33	3.82	12.13
Agriculture	0.34					
Industry	451.07	34.96	73.50	9.33	1.85	12.13
Industry - NonEnergy Use	18.05	0.63				5.36
Construction	0.09					
Transportation, Telecommunications, Postal	0.03					
Wholesale, Retail Trade, and Catering Service	0.45	0.05			0.22	
Other	0.05	0.16				
Residential consumption	0.35	2.15			1.75	
Residential consumption - Urban	0.15	2.15			1.75	
Residential consumption - Rural	0.21				0.00	
Statistical Difference	0.09	0.02	0.21	0.08	0.07	0.03

Appendix 3: Energy Balance/China 2014

Standard Quantity (Mtce) *(continued)*

	Total					
	Petroleum	Crude Oil	Gasoline	Kerosene	Diesel Oil	Fuel Oil
Total Primary Energy Supply	741.62	736.57	(18.52)	(10.95)	(6.74)	12.29
Indigenous Production	302.34	302.13				
Indigenous Production - Hydro Power						
Indigenous Production - Nuclear Power						
Indigenous Production - Wind Power						
Import	507.70	440.67	0.05	6.09	0.69	25.50
Chinese Vessels Refueling Abroad	9.67			4.51	0.11	5.17
Export	(49.75)	(0.86)	(7.47)	(15.69)	(5.98)	(13.54)
Foreign Vessels Refueling in China	(10.51)			(5.73)	(0.19)	(4.75)
Stock Change	(17.83)	(5.37)	(11.11)	(0.14)	(1.36)	(0.09)
Total Transformation	(36.75)	(722.83)	162.24	45.32	256.39	17.78
Thermal Power	(3.63)	(0.13)	(0.00)	(0.00)	(0.38)	(0.51)
Heating Supply	(7.45)	(0.10)	(0.00)	(0.00)	(0.07)	(2.36)
Coal Washing						
Coking						
Petroleum Refineries	83.69	(722.61)	162.25	45.32	256.95	50.61
Petroleum Refineries - Petroleum Products Input	(109.36)		(0.01)		(0.11)	(29.97)
Gas Works						
Gas Works - Coke input						
Natural Gas Liquefaction						
Briquettes						
Recovery of Energy						
Losses	1.58	1.54				
Total Consumption	702.62	12.23	143.80	34.35	249.54	30.05
Agriculture	24.56		3.19	0.01	21.74	0.02
Industry	222.86	12.23	7.18	0.25	22.69	7.69
Industry - NonEnergy Use	111.90	5.19	0.15	0.03	0.40	0.63
Construction	47.36		4.87	0.15	8.04	0.64
Transportation, Telecommunications, Postal	278.84		68.62	32.60	160.89	21.24
Wholesale, Retail Trade, and Catering Service	8.05		3.20	0.17	3.35	0.25
Other	45.07		25.57	0.75	18.49	0.22
Residential consumption	75.86		31.17	0.42	14.34	
Residential consumption - Urban	52.70		21.58	0.06	8.04	
Residential consumption - Rural	23.17		9.59	0.37	6.31	
Statistical Difference	0.68	(0.03)	(0.08)	0.01	0.11	0.02

Appendix 3: Energy Balance/China 2014

Standard Quantity (Mtce) *(continued)*

	Petroleum				Bitumen Asphalt	Petroleum Coke
	Naphtha	Lubricants	Waxes	Solvents		
Total Primary Energy Supply	4.12	0.27	(0.56)	0.02	5.12	3.45
Indigenous Production						
Indigenous Production - Hydro Power						
Indigenous Production - Nuclear Power						
Indigenous Production - Wind Power						
Import	5.55	0.45	0.10	0.04	5.38	5.62
Chinese Vessels Refueling Abroad						
Export	(0.20)	(0.18)	(0.67)	(0.01)	(0.27)	(2.56)
Foreign Vessels Refueling in China						
Stock Change	(1.23)			(0.00)		0.40
Total Transformation	59.42	1.54	1.95	1.21	25.59	16.46
Thermal Power						(1.20)
Heating Supply						(1.58)
Coal Washing						
Coking						
Petroleum Refineries	65.84	1.59	1.95	1.21	25.71	19.23
Petroleum Refineries - Petroleum Products Input	(6.42)	(0.05)			(0.13)	(0.00)
Gas Works						
Gas Works - Coke input						
Natural Gas Liquefaction						
Briquettes						
Recovery of Energy						
Losses						
Total Consumption	63.50	1.80	1.38	1.23	30.69	19.89
Agriculture						
Industry	63.50	1.80	1.38	1.23	0.88	19.89
Industry - NonEnergy Use	55.24	1.57	1.34	1.15	0.52	13.98
Construction					29.82	
Transportation, Telecommunications, Postal						
Wholesale, Retail Trade, and Catering Service						
Other						
Residential consumption						
Residential consumption - Urban						
Residential consumption - Rural						
Statistical Difference	0.03	0.02	0.01	0.00	0.01	0.01

Appendix 3: Energy Balance/China 2014 Standard Quantity (Mtce) *(continued)*

	Liquid		Petroleum		Natural Gas	LNG	Heat
	Petroleum Gas	Refinery Gas	Other Products	Natural Gas			
Total Primary Energy Supply	10.06		4.75	211.90	34.83		
Indigenous Production				173.11			
Indigenous Production - Hydro Power							
Indigenous Production - Nuclear Power							
Indigenous Production - Wind Power							
Import	12.67		4.19	42.26	34.83		
Chinese Vessels Refueling Abroad							
Export	(2.48)		(0.03)	(3.47)			
Foreign Vessels Refueling in China							
Stock Change	(0.14)		0.60				
Total Transformation	41.58	22.45	44.42	(46.71)	4.67	128.63	
Thermal Power	(0.00)	(1.02)	(0.06)	(30.35)	(3.09)	(18.73)	
Heating Supply	(0.05)	(2.56)	(0.38)	(6.92)	(0.12)	127.24	
Coal Washing							
Coking							
Petroleum Refineries	46.38	27.62	106.72	(0.62)			
Petroleum Refineries - Petroleum Products Input	(4.75)	(1.59)	(61.87)				
Gas Works				(0.24)			
Gas Works - Coke input							
Natural Gas Liquefaction				(8.58)	7.87		
Briquettes							
Recovery of Energy							20.11
Losses	0.04			2.70	0.25	1.71	
Total Consumption	51.55	22.47	48.68	162.67	39.34	126.93	
Agriculture	0.12			0.11		0.03	
Industry	9.52	22.47	47.62	82.44	35.32	90.95	
Industry - NonEnergy Use	5.04	0.39	22.51	16.18	3.27		
Construction	0.29		1.06	0.25		0.28	
Transportation, Telecommunications, Postal	1.53			22.62	4.03	0.82	
Wholesale, Retail Trade, and Catering Service	1.49			6.20		1.95	
Other	1.36			5.49		3.50	
Residential consumption	37.25			45.56		29.40	
Residential consumption - Urban	28.50			45.39		29.40	
Residential consumption - Rural	8.74			0.17			
Statistical Difference	0.05	(0.02)	0.49	(0.19)	(0.09)	(0.01)	

Appendix 3: Energy Balance/China 2014 Standard Quantity (Mtce) *(continued)*

	Electricity	Other Energy	Total Energy
Total Primary Energy Supply	168.31	57.37	4,109.14
Indigenous Production	169.72	57.37	3,468.52
Indigenous Production - Hydro Power	130.81		130.81
Indigenous Production - Nuclear Power	16.29		16.29
Indigenous Production - Wind Power	19.18		19.18
Import	0.83		758.72
Chinese Vessels Refueling Abroad			9.67
Export	(2.23)		(67.81)
Foreign Vessels Refueling in China			(10.51)
Stock Change			(49.44)
Total Transformation	524.62		(1,024.17)
Thermal Power	524.62	(7.84)	(863.83)
Heating Supply		(2.95)	(56.07)
Coal Washing			(166.90)
Coking			78.55
Petroleum Refineries			77.78
Petroleum Refineries - Petroleum Products Input			(109.36)
Gas Works			(0.96)
Gas Works - Coke input			(0.48)
Natural Gas Liquefaction			(8.58)
Briquettes			(5.22)
Recovery of Energy		10.79	30.91
Losses	38.10		44.09
Total Consumption	654.86	57.37	3,038.65
Agriculture	12.45	4.78	60.69
Industry	463.37	16.76	2,054.17
Industry - NonEnergy Use			214.55
Construction	8.87	0.35	63.72
Transportation, Telecommunications, Postal	13.02	11.06	330.36
Wholesale, Retail Trade, and Catering Service	24.53	0.88	69.23
Other	44.43	2.79	130.39
Residential consumption	88.19	20.75	330.09
Residential consumption - Urban	48.34	2.31	192.48
Residential consumption - Rural	39.86	18.44	137.61
Statistical Difference	(0.02)	(0.00)	2.24

Appendix 3: Energy Balance/China 2014 Physical Quantity

	Total Coal		Coal	Coal	Coal	Gangue
	Mt	Mt	Cleaned	Washed	Briquettes	
	Mt	Mt	Mt	Mt	Mt	Mt
Total Primary Energy Supply	2,940.49	2,946.14	(3.27)	(2.19)	(0.06)	
Indigenous Production	2,765.98	2,765.98				
Indigenous Production - Hydro Power						
Indigenous Production - Nuclear Power						
Indigenous Production - Wind Power						
Import	207.93	207.90			0.02	
Chinese Vessels Refueling Abroad						
Export	(4.10)	(4.00)			(0.08)	
Foreign Vessels Refueling in China						
Stock Change	(29.32)	(23.75)	(3.27)	(2.19)	(0.00)	
Total Transformation	(2,110.37)	(2,253.20)	58.33	60.90	11.55	(0.03)
Thermal Power	(1,317.51)	(1,299.09)	(0.29)	(13.37)		(6.37)
Heating Supply	(160.26)	(155.08)	(0.35)	(3.60)		(1.65)
Coal Washing	(166.90)	(733.04)	557.79	90.91		7.98
Coking	(449.06)	(55.14)	(495.81)	(0.43)		
Petroleum Refineries	(4.64)	(3.28)	(1.62)	(0.06)		
Petroleum Refineries - Petroleum Products Input						
Gas Works	(6.77)	(5.63)	(1.39)	(0.03)		
Gas Works - Coke input						
Natural Gas Liquefaction						
Briquettes	(5.22)	(1.94)		(12.52)	11.55	
Recovery of Energy						
Losses						
Total Consumption	828.55	691.39	55.00	58.76	11.44	
Agriculture	18.41	18.09		0.23		
Industry	677.78	553.52	54.85	52.39	7.98	
Industry - NonEnergy Use	62.44	55.12	5.96	1.91		
Construction	6.52	6.33	0.06	0.11		
Transportation, Telecommunications, Postal	3.98	3.69	0.09	0.17		
Wholesale, Retail Trade, and Catering Service	26.90	26.16		0.36	0.21	
Other	28.88	28.01		0.58	0.08	
Residential consumption	66.07	55.60		4.92	3.18	
Residential consumption - Urban	10.29	7.26		1.34	1.03	
Residential consumption - Rural	55.77	48.34		3.58	2.15	
Statistical Difference	1.57	1.54	0.06	(0.05)	0.04	(0.03)

Appendix 3: Energy Balance/China 2014

Physical Quantity *(continued)*

	Coke		Blast Furnace		Converter	Coal Gas	Coke
	Coke	Oven Gas	Gas	Gas	Gas	not Coke Source	Other Products
	Mt	bm ³	bm ³	bm ³	bm ³	bm ³	Mt
Total Primary Energy Supply	(10.55)						
Indigenous Production							
Indigenous Production - Hydro Power							
Indigenous Production - Nuclear Power							
Indigenous Production - Wind Power							
Import	0.00						
Chinese Vessels Refueling Abroad							
Export	(8.26)						
Foreign Vessels Refueling in China							
Stock Change	(2.29)						
Total Transformation	463.02	37.34	73.71	9.40	3.89	12.16	
Thermal Power	(0.48)	(9.86)	(18.43)	(2.89)	(0.03)		
Heating Supply	(2.07)	(3.66)	(8.81)	(1.57)	(0.01)		
Coal Washing							
Coking	464.57	50.38				12.66	
Petroleum Refineries						(0.65)	
Petroleum Refineries - Petroleum Products Input							
Gas Works	1.33	0.47				3.93	
Gas Works - Coke input	(0.32)					(0.16)	
Natural Gas Liquefaction							
Briquettes							
Recovery of Energy			100.94	13.87			
Losses							
Total Consumption	452.38	37.32	73.50	9.33	3.82	12.13	
Agriculture	0.34						
Industry	451.07	34.96	73.50	9.33	1.85	12.13	
Industry - NonEnergy Use	18.05	0.63				5.36	
Construction	0.09						
Transportation, Telecommunications, Postal	0.03						
Wholesale, Retail Trade, and Catering Service	0.45	0.05				0.22	
Other	0.05	0.16					
Residential consumption	0.35	2.15				1.75	
Residential consumption - Urban	0.15	2.15				1.75	
Residential consumption - Rural	0.21					0.00	
Statistical Difference	0.09	0.02	0.21	0.08	0.07	0.03	

Appendix 3: Energy Balance/China 2014

Physical Quantity *(continued)*

	Total					
	Petroleum	Crude Oil	Gasoline	Kerosene	Diesel Oil	Fuel Oil
	Mt	Mt	Mt	Mt	Mt	Mt
Total Primary Energy Supply	741.62	736.57	(18.52)	(10.95)	(6.74)	12.29
Indigenous Production	302.34	302.13				
Indigenous Production - Hydro Power						
Indigenous Production - Nuclear Power						
Indigenous Production - Wind Power						
Import	507.70	440.67	0.05	6.09	0.69	25.50
Chinese Vessels Refueling Abroad	9.67			4.51	0.11	5.17
Export	(49.75)	(0.86)	(7.47)	(15.69)	(5.98)	(13.54)
Foreign Vessels Refueling in China	(10.51)			(5.73)	(0.19)	(4.75)
Stock Change	(17.83)	(5.37)	(11.11)	(0.14)	(1.36)	(0.09)
Total Transformation	(36.75)	(722.83)	162.24	45.32	256.39	17.78
Thermal Power	(3.63)	(0.13)	(0.00)	(0.00)	(0.38)	(0.51)
Heating Supply	(7.45)	(0.10)	(0.00)	(0.00)	(0.07)	(2.36)
Coal Washing						
Coking						
Petroleum Refineries	83.69	(722.61)	162.25	45.32	256.95	50.61
Petroleum Refineries - Petroleum Products Input	(109.36)		(0.01)		(0.11)	(29.97)
Gas Works						
Gas Works - Coke Input						
Natural Gas Liquefaction						
Briquettes						
Recovery of Energy						
Losses	1.58	1.54				
Total Consumption	702.62	12.23	143.80	34.35	249.54	30.05
Agriculture	24.56		3.19	0.01	21.74	0.02
Industry	222.86	12.23	7.18	0.25	22.69	7.69
Industry - NonEnergy Use	111.90	5.19	0.15	0.03	0.40	0.63
Construction	47.36		4.87	0.15	8.04	0.64
Transportation, Telecommunications, Postal	278.84		68.62	32.60	160.89	21.24
Wholesale, Retail Trade, and Catering Service	8.05		3.20	0.17	3.35	0.25
Other	45.07		25.57	0.75	18.49	0.22
Residential consumption	75.86		31.17	0.42	14.34	
Residential consumption - Urban	52.70		21.58	0.06	8.04	
Residential consumption - Rural	23.17		9.59	0.37	6.31	
Statistical Difference	0.68	(0.03)	(0.08)	0.01	0.11	0.02

Appendix 3: Energy Balance/China 2014

Physical Quantity *(continued)*

	Petroleum				Bitumen	Petroleum
	Naphtha	Lubricants	Waxes	Solvents	Asphalt	Coke
	Mt	Mt	Mt	Mt	Mt	Mt
Total Primary Energy Supply	4.12	0.27	(0.56)	0.02	5.12	3.45
Indigenous Production						
Indigenous Production - Hydro Power						
Indigenous Production - Nuclear Power						
Indigenous Production - Wind Power						
Import	5.55	0.45	0.10	0.04	5.38	5.62
Chinese Vessels Refueling Abroad						
Export	(0.20)	(0.18)	(0.67)	(0.01)	(0.27)	(2.56)
Foreign Vessels Refueling in China						
Stock Change	(1.23)			(0.00)		0.40
Total Transformation	59.42	1.54	1.95	1.21	25.59	16.46
Thermal Power						(1.20)
Heating Supply						(1.58)
Coal Washing						
Coking						
Petroleum Refineries	65.84	1.59	1.95	1.21	25.71	19.23
Petroleum Refineries - Petroleum Products Input	(6.42)	(0.05)			(0.13)	(0.00)
Gas Works						
Gas Works - Coke input						
Natural Gas Liquefaction						
Briquettes						
Recovery of Energy						
Losses						
Total Consumption	63.50	1.80	1.38	1.23	30.69	19.89
Agriculture						
Industry	63.50	1.80	1.38	1.23	0.88	19.89
Industry - NonEnergy Use	55.24	1.57	1.34	1.15	0.52	13.98
Construction					29.82	
Transportation, Telecommunications, Postal						
Wholesale, Retail Trade, and Catering Service						
Other						
Residential consumption						
Residential consumption - Urban						
Residential consumption - Rural						
Statistical Difference	0.03	0.02	0.01	0.00	0.01	0.01

Appendix 3: Energy Balance/China 2014

Physical Quantity *(continued)*

	Liquid		Petroleum		Natural Gas	LNG	Heat
	Petroleum	Refinery	Other				
	Gas	Gas	Products	Gas			
	Mt	Mt	Mt	bm ³	Mt	PJ	
Total Primary Energy Supply	10.06		4.75		211.90	34.83	
Indigenous Production					173.11		
Indigenous Production - Hydro Power							
Indigenous Production - Nuclear Power							
Indigenous Production - Wind Power							
Import	12.67		4.19		42.26	34.83	
Chinese Vessels Refueling Abroad							
Export	(2.48)		(0.03)		(3.47)		
Foreign Vessels Refueling in China							
Stock Change	(0.14)		0.60				
Total Transformation	41.58	22.45	44.42		(46.71)	4.67	128.63
Thermal Power	(0.00)	(1.02)	(0.06)		(30.35)	(3.09)	(18.73)
Heating Supply	(0.05)	(2.56)	(0.38)		(6.92)	(0.12)	127.24
Coal Washing							
Coking							
Petroleum Refineries	46.38	27.62	106.72		(0.62)		
Petroleum Refineries - Petroleum Products Input	(4.75)	(1.59)	(61.87)				
Gas Works					(0.24)		
Gas Works - Coke input							
Natural Gas Liquefaction					(8.58)	7.87	
Briquettes							
Recovery of Energy							20.11
Losses	0.04				2.70	0.25	1.71
Total Consumption	51.55	22.47	48.68		162.67	39.34	126.93
Agriculture	0.12				0.11		0.03
Industry	9.52	22.47	47.62		82.44	35.32	90.95
Industry - NonEnergy Use	5.04	0.39	22.51		16.18	3.27	
Construction	0.29		1.06		0.25		0.28
Transportation, Telecommunications, Postal	1.53				22.62	4.03	0.82
Wholesale, Retail Trade, and Catering Service	1.49				6.20		1.95
Other	1.36				5.49		3.50
Residential consumption	37.25				45.56		29.40
Residential consumption - Urban	28.50				45.39		29.40
Residential consumption - Rural	8.74				0.17		
Statistical Difference	0.05	(0.02)	0.49		(0.19)	(0.09)	(0.01)

Appendix 3: Energy Balance/China 2014

Physical Quantity *(continued)*

	Electricity	Other Energy	Total Energy
	TWh	Mtce	Mtce
Total Primary Energy Supply	168.31	57.37	4,109.14
Indigenous Production	169.72	57.37	3,468.52
Indigenous Production - Hydro Power	130.81		130.81
Indigenous Production - Nuclear Power	16.29		16.29
Indigenous Production - Wind Power	19.18		19.18
Import	0.83		758.72
Chinese Vessels Refueling Abroad			9.67
Export	(2.23)		(67.81)
Foreign Vessels Refueling in China			(10.51)
Stock Change			(49.44)
Total Transformation	524.62		(1,024.17)
Thermal Power	524.62	(7.84)	(863.83)
Heating Supply		(2.95)	(56.07)
Coal Washing			(166.90)
Coking			78.55
Petroleum Refineries			77.78
Petroleum Refineries - Petroleum Products Input			(109.36)
Gas Works			(0.96)
Gas Works - Coke input			(0.48)
Natural Gas Liquefaction			(8.58)
Briquettes			(5.22)
Recovery of Energy		10.79	30.91
Losses	38.10		44.09
Total Consumption	654.86	57.37	3,038.65
Agriculture	12.45	4.78	60.69
Industry	463.37	16.76	2,054.17
Industry - NonEnergy Use			214.55
Construction	8.87	0.35	63.72
Transportation, Telecommunications, Postal	13.02	11.06	330.36
Wholesale, Retail Trade, and Catering Service	24.53	0.88	69.23
Other	44.43	2.79	130.39
Residential consumption	88.19	20.75	330.09
Residential consumption - Urban	48.34	2.31	192.48
Residential consumption - Rural	39.86	18.44	137.61
Statistical Difference	(0.02)	(0.00)	2.24

Appendix 4: Data Sources

1. Supply

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Notes

Notes

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