Annex 4

Summary Result Tables

EAS [BAU]

Primary energy consumption

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**2,040.8**	**5,257.0**	**6,420.0**	**8,008.0**	**9,517.5**	**100**	**100**	**100**	**100**	**100**	**4.2**	**2.9**	**2.2**	**1.7**	**2.2**
Coal	772.1	2,727.0	3,134.5	3,732.9	4,261.1	37.8	51.9	48.8	46.6	44.8	5.6	2.0	1.8	1.3	1.7
Oil	603.3	1,222.2	1,559.5	1,980.1	2,361.4	29.6	23.2	24.3	24.7	24.8	3.1	3.5	2.4	1.8	2.5
Natural gas	118.9	499.8	646.4	986.0	1,339.0	5.8	9.5	10.1	12.3	14.1	6.4	3.7	4.3	3.1	3.7
Nuclear	68.1	76.6	241.5	328.8	413.5	3.3	1.5	3.8	4.1	4.3	0.5	17.8	3.1	2.3	6.4
Hydro	30.9	111.8	145.7	168.0	190.8	1.5	2.1	2.3	2.1	2.0	5.7	3.9	1.4	1.3	2.0
Geothermal	9.7	35.7	53.1	81.6	106.5	0.5	0.7	0.8	1.0	1.1	5.8	5.8	4.4	2.7	4.1
Others	437.7	584.0	639.3	730.6	845.4	21.4	11.1	10.0	9.1	8.9	1.3	1.3	1.3	1.5	1.4
Biomass	436.1	539.2	561.0	597.5	640.7	21.4	10.3	8.7	7.5	6.7	0.9	0.6	0.6	0.7	0.6
Solar, Wind, Ocean	1.3	39.7	64.9	111.0	171.0	0.1	0.8	1.0	1.4	1.8	15.8	7.3	5.5	4.4	5.6
Biofuels	0.0	4.7	13.4	19.3	28.3	0.0	0.1	0.2	0.2	0.3	-	16.2	3.7	3.9	6.9
Electricit	0.3	0.4	0.1	2.8	5.3	0.0	0.0	0.0	0.0	0.1	2.1	-23.9	45.5	6.6	9.6

Final energy demand

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**1,509.5**	**3,347.4**	**4,141.1**	**5,132.9**	**6,128.6**	**100**	**100**	**100**	**100**	**100**	**3.5**	**3.1**	**2.2**	**1.8**	**2.3**
Industry	495.8	1,333.2	1,614.5	1,961.9	2,330.7	32.8	39.8	39.0	38.2	38.0	4.4	2.8	2.0	1.7	2.1
Transportation	197.2	576.4	822.5	1,124.7	1,387.9	13.1	17.2	19.9	21.9	22.6	4.8	5.2	3.2	2.1	3.3
Others	703.7	1,117.2	1,312.6	1,575.4	1,855.2	46.6	33.4	31.7	30.7	30.3	2.0	2.3	1.8	1.6	1.9
Non-energy	112.7	320.6	391.6	470.9	554.7	7.5	9.6	9.5	9.2	9.1	4.6	2.9	1.9	1.7	2.1
Total	**1,509.5**	**3,347.4**	**4,141.1**	**5,132.9**	**6,128.6**	**100**	**100**	**100**	**100**	**100**	**3.5**	**3.1**	**2.2**	**1.8**	**2.3**
Coal	411.5	773.0	858.0	925.0	1,010.0	27.3	23.1	20.7	18.0	16.5	2.8	1.5	0.8	0.9	1.0
Oil	460.4	1,070.1	1,415.5	1,805.2	2,164.3	30.5	32.0	34.2	35.2	35.3	3.7	4.1	2.5	1.8	2.6
Natural gas	48.4	242.7	356.7	522.0	704.0	3.2	7.2	8.6	10.2	11.5	7.3	5.7	3.9	3.0	4.0
Electricity	154.8	669.3	888.3	1,226.8	1,559.7	10.3	20.0	21.5	23.9	25.4	6.6	4.1	3.3	2.4	3.2
Heat	13.4	81.0	96.4	107.9	111.6	0.9	2.4	2.3	2.1	1.8	8.1	2.5	1.1	0.3	1.2
Others	420.9	511.3	526.2	545.9	579.0	27.9	15.3	12.7	10.6	9.4	0.8	0.4	0.4	0.6	0.5

Power generation Output

	TWh										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**2,196.5**	**9,282.5**	**12,212.6**	**16,699.4**	**21,015.3**	**100**	**100**	**100**	**100**	**100**	**6.5**	**4.0**	**3.2**	**2.3**	**3.1**
Coal	916.9	5,939.6	7,472.3	10,028.4	12,262.8	41.7	64.0	61.2	60.1	58.4	8.5	3.3	3.0	2.0	2.7
Oil	388.5	246.2	137.6	124.7	115.3	17.7	2.7	1.1	0.7	0.5	-2.0	-8.0	-1.0	-0.8	-2.8
Natural gas	247.1	1,116.7	1,253.4	2,059.9	2,918.4	11.2	12.0	10.3	12.3	13.9	6.8	1.7	5.1	3.5	3.6
Nuclear	261.3	293.9	926.6	1,261.9	1,586.8	11.9	3.2	7.6	7.6	7.6	0.5	17.8	3.1	2.3	6.4
Hydro	359.5	1,300.1	1,694.2	1,954.1	2,219.5	16.4	14.0	13.9	11.7	10.6	5.7	3.9	1.4	1.3	2.0
Geothermal	10.5	28.1	58.0	92.0	120.5	0.5	0.3	0.5	0.6	0.6	4.4	10.9	4.7	2.7	5.5
Others	12.7	357.9	670.5	1,178.4	1,792.0	0.6	3.9	5.5	7.1	8.5	15.6	9.4	5.8	4.3	6.1

Power generation Input

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**388.58**	**1,648.16**	**1,990.72**	**2,679.39**	**3,277.53**	**100**	**100**	**100**	**100**	**100**	**6.5**	**2.7**	**3.0**	**2.0**	**2.6**
Coal	248.21	1,381.32	1,721.50	2,276.32	2,743.27	63.9	83.8	86.5	85.0	83.7	7.7	3.2	2.8	1.9	2.6
Oil	89.98	57.23	34.06	31.28	28.74	23.2	3.5	1.7	1.2	0.9	-1.9	-7.1	-0.8	-0.8	-2.5
Natural gas	50.40	209.61	235.16	371.79	505.51	13.0	12.7	11.8	13.9	15.4	6.4	1.7	4.7	3.1	3.3

Thermal Efficiency

	%										AAGR(%)				
	1990	2013	2020	2030	2040						1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**34**	**38**	**38**	**39**	**40**						**0.5**	**0.1**	**0.2**	**0.2**	**0.2**
Coal	32	37	37	38	38						0.7	0.1	0.1	0.1	0.1
Oil	37	37	35	34	34						0.0	-0.9	-0.1	0.1	-0.3
Natural gas	42	46	46	48	50						0.4	0.0	0.4	0.4	0.3

CO_2 emissions

	Mt-C										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**1,340.8**	**4,023.8**	**4,785.5**	**5,941.7**	**7,010.4**	**100**	**100**	**100**	**100**	**100**	**4.9**	**2.5**	**2.2**	**1.7**	**2.1**
Coal	825.5	2,902.2	3,336.8	3,981.1	4,560.4	61.6	72.1	69.7	67.0	65.1	5.6	2.0	1.8	1.4	1.7
Oil	444.7	836.3	1,078.8	1,386.1	1,673.7	33.2	20.8	22.5	23.3	23.9	2.8	3.7	2.5	1.9	2.6
Natural Gas	70.6	285.2	369.9	574.4	776.2	5.3	7.1	7.7	9.7	11.1	6.3	3.8	4.5	3.1	3.8

Energy and economic indicators

						AAGR(%)				
	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
GDP (billions of 2005 US dollars)	5,990	14,663	20,016	29,900	41,975	4.0	4.5	4.1	3.5	4.0
Population (millions of people)	2,629	3,430	3,649	3,878	4,009	1.2	0.9	0.6	0.3	0.6
GDP per capita (thousands of 2005 USD/person)	2.28	4.27	5.5	7.7	10.5	2.8	3.6	3.5	3.1	3.4
Primary energy consumption per capita (toe/person)	0.78	1.53	1.76	2.06	2.37	3.0	2.0	1.6	1.4	1.6
Primary energy consumption per unit of GDP (toe/million 2005 US Dollars)	341	359	321	268	227	0.2	-1.6	-1.8	-1.7	-1.7
Final energy consumption per unit of GDP (toe/million 2005 US Dollars)	252	228	207	172	146	-0.4	-1.4	-1.8	-1.6	-1.6
CO_2 emissions per unit of GDP (t-C/million 2005 US Dollars)	224	274	239	199	167	0.9	-1.9	-1.8	-1.7	-1.8
CO_2 emissions per unit of primary energy consumption (t-C/toe)	0.66	0.77	0.75	0.74	0.74	0.7	-0.4	0.0	-0.1	-0.1
Automobile ownership volume (millions of vehicles)	83.5	279.0	439.1	631.6	808.9	5.4	6.7	3.7	2.5	4.0
Automobile ownership volume per capita (vehicles per person)	0.032	0.081	0.120	0.163	0.202	4.2	5.8	3.1	2.2	3.4

EAS [APS]

Primary energy consumption

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**2,040.8**	**5,257.0**	**6,077.1**	**7,108.7**	**8,026.4**	**100**	**100**	**100**	**100**	**100**	**4.2**	**2.1**	**1.6**	**1.2**	**1.6**
Coal	772.1	2,727.0	2,851.6	2,966.0	2,993.0	37.8	51.9	46.9	41.7	37.3	5.6	0.6	0.4	0.1	0.3
Oil	603.3	1,222.2	1,486.8	1,793.1	2,055.2	29.6	23.2	24.5	25.2	25.6	3.1	2.8	1.9	1.4	1.9
Natural gas	118.9	499.8	597.3	833.4	1,063.5	5.8	9.5	9.8	11.7	13.3	6.4	2.6	3.4	2.5	2.8
Nuclear	68.1	76.6	277.1	457.4	647.3	3.3	1.5	4.6	6.4	8.1	0.5	20.2	5.1	3.5	8.2
Hydro	30.9	111.8	155.3	182.4	209.3	1.5	2.1	2.6	2.6	2.6	5.7	4.8	1.6	1.4	2.4
Geothermal	9.7	35.7	54.8	105.9	146.5	0.5	0.7	0.9	1.5	1.8	5.8	6.3	6.8	3.3	5.4
Others	437.7	584.0	654.3	770.4	911.5	21.4	11.1	10.8	10.8	11.4	1.3	1.6	1.6	1.7	1.7
Biomass	436.1	539.1	561.4	586.7	621.4	21.4	10.3	9.2	8.3	7.7	0.9	0.6	0.4	0.6	0.5
Solar, Wind, Ocean	1.3	39.7	78.3	154.8	237.4	0.1	0.8	1.3	2.2	3.0	15.8	10.2	7.1	4.4	6.8
Biofuels	0.0	4.8	14.6	28.3	49.1	0.0	0.1	0.2	0.4	0.6	-	17.3	6.8	5.7	9.0
Electricit	0.3	0.4	0.0	0.6	3.6	0.0	0.0	0.0	0.0	0.0	2.1	-172.2	-	19.8	8.0

Final energy demand

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**1,509.5**	**3,347.4**	**3,962.6**	**4,661.5**	**5,349.3**	**100**	**100**	**100**	**100**	**100**	**3.5**	**2.4**	**1.6**	**1.4**	**1.8**
Industry	495.8	1,333.2	1,533.5	1,754.6	2,017.5	32.8	39.8	38.7	37.6	37.7	4.4	2.0	1.4	1.4	1.5
Transportation	197.2	576.4	775.2	1,007.7	1,196.5	13.1	17.2	19.6	21.6	22.4	4.8	4.3	2.7	1.7	2.7
Others	703.7	1,117.2	1,262.3	1,428.2	1,580.6	46.6	33.4	31.9	30.6	29.5	2.0	1.8	1.2	1.0	1.3
Non-energy	112.7	320.6	391.6	470.9	554.7	7.5	9.6	9.9	10.1	10.4	4.6	2.9	1.9	1.7	2.1
Total	**1,509.5**	**3,347.4**	**3,962.6**	**4,661.4**	**5,349.3**	**100**	**100**	**100**	**100**	**100**	**3.5**	**2.4**	**1.6**	**1.4**	**1.8**
Coal	411.5	773.0	817.6	824.6	856.5	27.3	23.1	20.6	17.7	16.0	2.8	0.8	0.1	0.4	0.4
Oil	460.4	1,070.1	1,348.8	1,632.0	1,877.5	30.5	32.0	34.0	35.0	35.1	3.7	3.4	1.9	1.4	2.1
Natural gas	48.4	242.7	342.8	483.5	639.6	3.2	7.2	8.7	10.4	12.0	7.3	5.1	3.5	2.8	3.7
Electricity	154.8	669.3	845.8	1,094.7	1,314.3	10.3	20.0	21.3	23.5	24.6	6.6	3.4	2.6	1.8	2.5
Heat	13.4	81.0	92.4	98.2	98.4	0.9	2.4	2.3	2.1	1.8	8.1	1.9	0.6	0.0	0.7
Others	420.9	511.3	515.1	528.5	562.9	27.9	15.3	13.0	11.3	10.5	0.8	0.1	0.3	0.6	0.4

Power generation Output

	TWh										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**2,196.5**	**9,282.5**	**11,624.6**	**14,899.3**	**17,677.5**	**100**	**100**	**100**	**100**	**100**	**6.5**	**3.3**	**2.5**	**1.7**	**2.4**
Coal	916.9	5,939.6	6,598.7	7,493.5	7,890.2	41.7	64.0	56.8	50.3	44.6	8.5	1.5	1.3	0.5	1.1
Oil	388.5	246.2	126.0	101.5	89.6	17.7	2.7	1.1	0.7	0.5	-2.0	-9.1	-2.1	-1.2	-3.7
Natural gas	247.1	1,116.7	1,112.8	1,587.5	2,006.9	11.2	12.0	9.6	10.7	11.4	6.8	-0.1	3.6	2.4	2.2
Nuclear	261.3	293.9	1,063.1	1,755.3	2,484.0	11.9	3.2	9.1	11.8	14.1	0.5	20.2	5.1	3.5	8.2
Hydro	359.5	1,300.1	1,806.6	2,121.2	2,435.6	16.4	14.0	15.5	14.2	13.8	5.7	4.8	1.6	1.4	2.4
Geothermal	10.5	28.1	60.2	121.1	168.2	0.5	0.3	0.5	0.8	1.0	4.4	11.5	7.2	3.3	6.8
Others	12.7	357.9	857.2	1,719.2	2,603.0	0.6	3.9	7.4	11.5	14.7	15.6	13.3	7.2	4.2	7.6

Power generation Input

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**388.6**	**1,648.2**	**1,739.7**	**1,968.2**	**2,066.3**	**100**	**100**	**100**	**100**	**100**	**6.5**	**0.8**	**1.2**	**0.5**	**0.8**
Coal	248.2	1,381.3	1,504.6	1,668.6	1,716.6	63.9	83.8	86.5	84.8	83.1	7.7	1.2	1.0	0.3	0.8
Oil	90.0	57.2	30.9	24.9	21.6	23.2	3.5	1.8	1.3	1.0	-1.9	-8.4	-2.2	-1.4	-3.5
Natural gas	50.4	209.6	204.2	274.7	328.2	13.0	12.7	11.7	14.0	15.9	6.4	-0.4	3.0	1.8	1.7

Thermal Efficiency

	%						AAGR(%)				
	1990	2013	2020	2030	2040		1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**34**	**38**	**39**	**40**	**42**		**0.5**	**0.2**	**0.4**	**0.4**	**0.3**
Coal	32	37	38	39	40		0.7	0.3	0.2	0.2	0.2
Oil	37	37	35	35	36		0.0	-0.8	0.0	0.2	-0.1
Natural gas	42	46	47	50	53		0.4	0.3	0.6	0.6	0.5

CO_2 emissions

	Mt-C										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**1,340.8**	**4,023.8**	**4,393.7**	**4,869.6**	**5,223.1**	**100**	**100**	**100**	**100**	**100**	**4.9**	**1.3**	**1.0**	**0.7**	**1.0**
Coal	825.5	2,902.2	3,036.0	3,164.1	3,210.9	61.6	72.1	69.1	65.0	61.5	5.6	0.6	0.4	0.1	0.4
Oil	444.7	836.3	1,017.1	1,224.4	1,405.1	33.2	20.8	23.1	25.1	26.9	2.8	2.8	1.9	1.4	1.9
Natural Gas	70.6	285.2	340.6	481.1	607.1	5.3	7.1	7.8	9.9	11.6	6.3	2.6	3.5	2.4	2.8

Energy and economic indicators

						AAGR(%)				
	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
GDP (billions of 2005 US dollars)	5,990	14,663	20,016	29,900	41,975	4.0	4.5	4.1	3.5	4.0
Population (millions of people)	2,629	3,430	3,649	3,878	4,009	1.2	0.9	0.6	0.3	0.6
GDP per capita (thousands of 2005 USD/person)	2.28	4.27	5.5	7.7	10.5	2.8	3.6	3.5	3.1	3.4
Primary energy consumption per capita (toe/person)	0.78	1.53	1.67	1.83	2.00	3.0	1.2	1.0	0.9	1.0
Primary energy consumption per unit of GDP (toe/million 2005 US Dollars)	341	359	304	238	191	0.2	-2.3	-2.4	-2.2	-2.3
Final energy consumption per unit of GDP (toe/million 2005 US Dollars)	252	228	198	156	127	-0.4	-2.0	-2.4	-2.0	-2.1
CO_2 emissions per unit of GDP (t-C/million 2005 US Dollars)	224	274	220	163	124	0.9	-3.1	-2.9	-2.7	-2.9
CO_2 emissions per unit of primary energy consumption (t-C/toe)	0.66	0.77	0.72	0.69	0.65	0.7	-0.8	-0.5	-0.5	-0.6
Automobile ownership volume (millions of vehicles)	83.5	278.2	438.3	630.8	808.0	5.4	6.7	3.7	2.5	4.0
Automobile ownership volume per capita (vehicles per person)	0.032	0.081	0.120	0.163	0.202	4.2	5.8	3.1	2.2	3.4

Australia [BAU]

Primary energy consumption

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**86.38**	**129.14**	**153.50**	**173.13**	**193.38**	**100**	**100**	**100**	**100**	**100**	**1.8**	**2.5**	**1.2**	**1.1**	**1.5**
Coal	35.13	45.65	40.45	43.27	46.13	40.7	35.4	26.4	25.0	23.9	1.1	-1.7	0.7	0.6	0.0
Oil	31.20	45.89	63.26	73.69	84.48	36.1	35.5	41.2	42.6	43.7	1.7	4.7	1.5	1.4	2.3
Natural gas	14.79	29.72	41.04	46.24	51.58	17.1	23.0	26.7	26.7	26.7	3.1	4.7	1.2	1.1	2.1
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hydro	1.22	1.56	1.62	1.62	1.62	1.4	1.2	1.1	0.9	0.8	1.1	0.5	0.0	0.0	0.1
Geothermal	-	0.00	0.08	0.25	0.45	-	0.0	0.1	0.1	0.2	-	112.3	11.6	5.9	29.3
Others	4.04	6.32	7.03	8.06	9.12	4.7	4.9	4.6	4.7	4.7	2.0	1.5	1.4	1.2	1.4
Biomass	3.96	4.84	0.00	0.00	0.00	4.6	3.7	0.0	0.0	0.0	0.9	-100.0	-	-	-100.0
Solar, Wind, Ocean	0.08	1.27	2.23	2.96	3.73	0.1	1.0	1.5	1.7	1.9	12.7	8.4	2.9	2.4	4.1
Biofuels	-	0.22	4.81	5.10	5.41	-	0.2	3.1	2.9	2.8	-	55.7	0.6	0.6	12.7
Electricit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Final energy demand

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**56.65**	**80.79**	**112.97**	**128.81**	**145.15**	**100**	**100**	**100**	**100**	**100**	**1.6**	**4.9**	**1.3**	**1.2**	**2.2**
Industry	19.32	25.23	44.97	51.00	57.21	34.1	31.2	39.8	39.6	39.4	1.2	8.6	1.3	1.2	3.1
Transportation	21.11	31.14	45.48	52.33	59.41	37.3	38.5	40.3	40.6	40.9	1.7	5.6	1.4	1.3	2.4
Others	12.27	19.69	22.52	25.48	28.53	21.7	24.4	19.9	19.8	19.7	2.1	1.9	1.2	1.1	1.4
Non-energy	3.95	4.74	0.00	0.00	0.00	7.0	5.9	0.0	0.0	0.0	0.8	-100.0	-	-	-100.0
Total	**56.65**	**80.79**	**112.98**	**128.78**	**145.15**	**100**	**100**	**100**	**100**	**100**	**1.6**	**4.9**	**1.3**	**1.2**	**2.2**
Coal	4.56	3.30	2.96	3.20	3.52	8.0	4.1	2.6	2.5	2.4	-1.4	-1.6	0.8	1.0	0.2
Oil	29.00	41.49	60.33	70.56	80.36	51.2	51.4	53.4	54.8	55.4	1.6	5.5	1.6	1.3	2.5
Natural gas	8.65	13.48	24.81	26.72	29.39	15.3	16.7	22.0	20.7	20.2	1.9	9.1	0.7	1.0	2.9
Electricity	11.11	17.72	20.23	23.25	26.30	19.6	21.9	17.9	18.1	18.1	2.0	1.9	1.4	1.2	1.5
Heat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	3.33	4.81	4.64	5.05	5.58	5.9	5.9	4.1	3.9	3.8	1.6	-0.5	0.8	1.0	0.6

Power generation Output

	TWh										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**154.29**	**248.96**	**270.00**	**300.00**	**334.49**	**100**	**100**	**100**	**100**	**100**	**2.1**	**1.2**	**1.1**	**1.1**	**1.1**
Coal	121.48	161.20	172.25	190.75	212.38	78.7	64.7	63.8	63.6	63.5	1.2	1.0	1.0	1.1	1.0
Oil	3.55	3.41	3.00	3.00	3.19	2.3	1.4	1.1	1.0	1.0	-0.2	-1.8	0.0	0.6	-0.3
Natural gas	14.36	53.09	49.75	49.25	52.03	9.3	21.3	18.4	16.4	15.6	5.9	-0.9	-0.1	0.6	-0.1
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hydro	14.15	18.17	19.00	19.00	20.18	9.2	7.3	7.0	6.3	6.0	1.1	0.6	0.0	0.6	0.4
Geothermal	-	0.00	1.00	3.00	4.25	0.0	0.0	0.4	1.0	1.3	-	168.3	11.6	3.5	36.3
Others	0.75	13.09	25.00	35.00	42.48	0.5	5.3	9.3	11.7	12.7	13.2	9.7	3.4	2.0	4.5

Power generation Input

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**33.30**	**53.56**	**49.40**	**51.87**	**56.37**	**100**	**100**	**100**	**100**	**100**	**2.1**	**-1.1**	**0.5**	**0.8**	**0.2**
Coal	28.88	41.49	37.49	40.07	43.92	86.7	77.5	75.9	77.3	77.9	1.6	-1.4	0.7	0.9	0.2
Oil	0.95	0.90	0.80	0.80	0.83	2.8	1.7	1.6	1.5	1.5	-0.2	-1.8	0.0	0.4	-0.3
Natural gas	3.47	11.17	11.11	11.00	11.62	10.4	20.9	22.5	21.2	20.6	5.2	-0.1	-0.1	0.6	0.1

Thermal Efficiency

	%						AAGR(%)				
	1990	2013	2020	2030	2040		1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**36**	**35**	**39**	**40**	**41**		**-0.1**	**1.6**	**0.3**	**0.1**	**0.6**
Coal	36	33	40	41	42		-0.3	2.4	0.4	0.2	0.8
Oil	32	32	32	32	33		0.0	-0.1	0.0	0.2	0.1
Natural gas	36	41	39	39	39		0.6	-0.9	0.0	0.0	-0.2

CO_2 emissions

	Mt-C										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**70.3**	**102.9**	**123.3**	**138.4**	**154.0**	**100**	**100**	**100**	**100**	**100**	**1.7**	**2.6**	**1.2**	**1.1**	**1.5**
Coal	37.9	49.3	44.04	47.10	50.22	54.0	47.9	35.7	34.0	32.6	1.1	-1.6	0.7	0.6	0.1
Oil	23.2	35.1	52.97	61.70	70.74	33.0	34.1	43.0	44.6	45.9	1.8	6.1	1.5	1.4	2.6
Natural Gas	9.2	18.6	26.29	29.62	33.04	13.1	18.0	21.3	21.4	21.5	3.1	5.1	1.2	1.1	2.2

Energy and economic indicators

						AAGR(%)				
	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
GDP (billions of 2005 US dollars)	427	867	1,026	1,313	1,681	3.1	2.4	2.5	2.5	2.5
Population (millions of people)	17	23	26	30	34	1.3	1.7	1.5	1.3	1.5
GDP per capita (thousands of 2005 USD/person)	25.03	37.49	39.5	43.8	49.2	1.8	0.8	1.0	1.2	1.0
Primary energy consumption per capita (toe/person)	5.06	5.58	5.92	5.77	5.67	0.4	0.8	-0.2	-0.2	0.1
Primary energy consumption per unit of GDP (toe/million 2005 US Dollars)	202	149	150	132	115	-1.3	0.1	-1.3	-1.4	-1.0
Final energy consumption per unit of GDP (toe/million 2005 US Dollars)	133	93	110	98	86	-1.5	2.4	-1.2	-1.3	-0.3
CO_2 emissions per unit of GDP (t-C/million 2005 US Dollars)	165	119	120	105	92	-1.4	0.2	-1.3	-1.4	-1.0
CO_2 emissions per unit of primary energy consumption (t-C/toe)	0.81	0.80	0.80	0.80	0.80	-0.1	0.1	0.0	0.0	0.0
Automobile ownership volume (millions of vehicles)	9.8	16.4	18.6	21.7	25.3	2.3	1.8	1.6	1.6	1.6
Automobile ownership volume per capita (vehicles per person)	0.57	0.71	0.72	0.72	0.74	0.9	0.2	0.1	0.3	0.2

Australia [APS=BAU]

Primary energy consumption

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**86.38**	**129.14**	**153.50**	**173.13**	**193.38**	**100**	**100**	**100**	**100**	**100**	**1.8**	**2.5**	**1.2**	**1.1**	**1.5**
Coal	35.13	45.65	40.45	43.27	46.13	40.7	35.4	26.4	25.0	23.9	1.1	-1.7	0.7	0.6	0.0
Oil	31.20	45.89	63.26	73.69	84.48	36.1	35.5	41.2	42.6	43.7	1.7	4.7	1.5	1.4	2.3
Natural gas	14.79	29.72	41.04	46.24	51.58	17.1	23.0	26.7	26.7	26.7	3.1	4.7	1.2	1.1	2.1
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hydro	1.22	1.56	1.62	1.62	1.62	1.4	1.2	1.1	0.9	0.8	1.1	0.5	0.0	0.0	0.1
Geothermal	-	0.00	0.08	0.25	0.45	-	0.0	0.1	0.1	0.2	-	112.3	11.6	5.9	29.3
Others	4.04	6.32	7.03	8.06	9.12	4.7	4.9	4.6	4.7	4.7	2.0	1.5	1.4	1.2	1.4
Biomass	3.96	4.84	0.00	0.00	0.00	4.6	3.7	0.0	0.0	0.0	0.9	-100.0	-	-	-100.0
Solar, Wind, Ocean	0.08	1.27	2.23	2.96	3.73	0.1	1.0	1.5	1.7	1.9	12.7	8.4	2.9	2.4	4.1
Biofuels	-	0.22	4.81	5.10	5.41	-	0.2	3.1	2.9	2.8	-	55.7	0.6	0.6	12.7
Electricit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Final energy demand

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**56.65**	**80.79**	**112.97**	**128.81**	**145.15**	**100**	**100**	**100**	**100**	**100**	**1.6**	**4.9**	**1.3**	**1.2**	**2.2**
Industry	19.32	25.23	44.97	51.00	57.21	34.1	31.2	39.8	39.6	39.4	1.2	8.6	1.3	1.2	3.1
Transportation	21.11	31.14	45.48	52.33	59.41	37.3	38.5	40.3	40.6	40.9	1.7	5.6	1.4	1.3	2.4
Others	12.27	19.69	22.52	25.48	28.53	21.7	24.4	19.9	19.8	19.7	2.1	1.9	1.2	1.1	1.4
Non-energy	3.95	4.74	0.00	0.00	0.00	7.0	5.9	0.0	0.0	0.0	0.8	-100.0	-	-	-100.0
Total	**56.65**	**80.79**	**112.98**	**128.78**	**145.15**	**100**	**100**	**100**	**100**	**100**	**1.6**	**4.9**	**1.3**	**1.2**	**2.2**
Coal	4.56	3.30	2.96	3.20	3.52	8.0	4.1	2.6	2.5	2.4	-1.4	-1.6	0.8	1.0	0.2
Oil	29.00	41.49	60.33	70.56	80.36	51.2	51.4	53.4	54.8	55.4	1.6	5.5	1.6	1.3	2.5
Natural gas	8.65	13.48	24.81	26.72	29.39	15.3	16.7	22.0	20.7	20.2	1.9	9.1	0.7	1.0	2.9
Electricity	11.11	17.72	20.23	23.25	26.30	19.6	21.9	17.9	18.1	18.1	2.0	1.9	1.4	1.2	1.5
Heat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	3.33	4.81	4.64	5.05	5.58	5.9	5.9	4.1	3.9	3.8	1.6	-0.5	0.8	1.0	0.6

Power generation Output

	TWh										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**154.29**	**248.96**	**270.00**	**300.00**	**334.49**	**100**	**100**	**100**	**100**	**100**	**2.1**	**1.2**	**1.1**	**1.1**	**1.1**
Coal	121.48	161.20	172.25	190.75	212.38	78.7	64.7	63.8	63.6	63.5	1.2	1.0	1.0	1.1	1.0
Oil	3.55	3.41	3.00	3.00	3.19	2.3	1.4	1.1	1.0	1.0	-0.2	-1.8	0.0	0.6	-0.3
Natural gas	14.36	53.09	49.75	49.25	52.03	9.3	21.3	18.4	16.4	15.6	5.9	-0.9	-0.1	0.6	-0.1
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hydro	14.15	18.17	19.00	19.00	20.18	9.2	7.3	7.0	6.3	6.0	1.1	0.6	0.0	0.6	0.4
Geothermal	-	0.00	1.00	3.00	4.25	0.0	0.0	0.4	1.0	1.3	-	168.3	11.6	3.5	36.3
Others	0.75	13.09	25.00	35.00	42.48	0.5	5.3	9.3	11.7	12.7	13.2	9.7	3.4	2.0	4.5

Power generation Input

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**33.30**	**53.56**	**49.40**	**51.87**	**56.37**	**100**	**100**	**100**	**100**	**100**	**2.1**	**-1.1**	**0.5**	**0.8**	**0.2**
Coal	28.88	41.49	37.49	40.07	43.92	86.7	77.5	75.9	77.3	77.9	1.6	-1.4	0.7	0.9	0.2
Oil	0.95	0.90	0.80	0.80	0.83	2.8	1.7	1.6	1.5	1.5	-0.2	-1.8	0.0	0.4	-0.3
Natural gas	3.47	11.17	11.11	11.00	11.62	10.4	20.9	22.5	21.2	20.6	5.2	-0.1	-0.1	0.6	0.1

Thermal Efficiency

	%						AAGR(%)				
	1990	2013	2020	2030	2040		1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**36**	**35**	**39**	**40**	**41**		**-0.1**	**1.6**	**0.3**	**0.1**	**0.6**
Coal	36	33	40	41	42		-0.3	2.4	0.4	0.2	0.8
Oil	32	32	32	32	33		0.0	-0.1	0.0	0.2	0.1
Natural gas	36	41	39	39	39		0.6	-0.9	0.0	0.0	-0.2

CO_2 emissions

	Mt-C										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**70.3**	**102.9**	**123.3**	**138.4**	**154.0**	**100**	**100**	**100**	**100**	**100**	**1.7**	**2.6**	**1.2**	**1.1**	**1.5**
Coal	37.9	49.3	44.04	47.10	50.22	54.0	47.9	35.7	34.0	32.6	1.1	-1.6	0.7	0.6	0.1
Oil	23.2	35.1	52.97	61.70	70.74	33.0	34.1	43.0	44.6	45.9	1.8	6.1	1.5	1.4	2.6
Natural Gas	9.2	18.6	26.29	29.62	33.04	13.1	18.0	21.3	21.4	21.5	3.1	5.1	1.2	1.1	2.2

Energy and economic indicators

						AAGR(%)				
	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
GDP (billions of 2005 US dollars)	427	867	1,026	1,313	1,681	3.1	2.4	2.5	2.5	2.5
Population (millions of people)	17	23	26	30	34	1.3	1.7	1.5	1.3	1.5
GDP per capita (thousands of 2005 USD/person)	25.03	37.49	39.5	43.8	49.2	1.8	0.8	1.0	1.2	1.0
Primary energy consumption per capita (toe/person)	5.06	5.58	5.92	5.77	5.67	0.4	0.8	-0.2	-0.2	0.1
Primary energy consumption per unit of GDP (toe/million 2005 US Dollars)	202	149	150	132	115	-1.3	0.1	-1.3	-1.4	-1.0
Final energy consumption per unit of GDP (toe/million 2005 US Dollars)	133	93	110	98	86	-1.5	2.4	-1.2	-1.3	-0.3
CO_2 emissions per unit of GDP (t-C/million 2005 US Dollars)	165	119	120	105	92	-1.4	0.2	-1.3	-1.4	-1.0
CO_2 emissions per unit of primary energy consumption (t-C/toe)	0.81	0.80	0.80	0.80	0.80	-0.1	0.1	0.0	0.0	0.0
Automobile ownership volume (millions of vehicles)	9.8	16.4	18.6	21.7	25.3	2.3	1.8	1.6	1.6	1.6
Automobile ownership volume per capita (vehicles per person)	0.57	0.71	0.72	0.72	0.74	0.9	0.2	0.1	0.3	0.2

Brunei Darussalam [BAU]

Primary energy consumption

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**1.72**	**2.87**	**4.05**	**4.76**	**5.61**	**100**	**100**	**100**	**100**	**100**	**2.2**	**5.1**	**1.6**	**1.7**	**2.5**
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil	0.05	0.70	1.17	1.37	1.62	2.7	24.3	28.8	28.9	28.8	12.4	7.6	1.6	1.6	3.2
Natural gas	1.68	2.17	2.87	3.37	3.98	97.3	75.7	70.8	70.8	70.9	1.1	4.1	1.6	1.7	2.3
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hydro	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Geothermal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	0.00	0.00	0.02	0.02	0.02	0.0	0.0	0.4	0.3	0.3	-	94.7	0.0	0.0	18.9
Biomass	0.00	0.00	0.02	0.02	0.02	0.0	0.0	0.4	0.3	0.3	-	-	0.0	0.0	-
Solar, Wind, Ocean	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Biofuels	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Electricit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Final energy demand

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**0.35**	**0.92**	**1.14**	**1.50**	**2.02**	**100**	**100**	**100**	**100**	**100**	**4.3**	**3.0**	**2.8**	**3.0**	**3.0**
Industry	0.06	0.17	0.27	0.38	0.52	17.4	18.3	23.8	25.6	25.5	4.5	6.9	3.6	3.0	4.2
Transportation	0.19	0.45	0.48	0.59	0.72	53.6	48.4	42.4	39.0	35.4	3.8	1.1	2.0	2.0	1.8
Others	0.09	0.29	0.37	0.51	0.77	24.2	31.8	32.3	34.1	38.0	5.5	3.3	3.4	4.1	3.6
Non-energy	0.02	0.01	0.02	0.02	0.02	4.8	1.5	1.6	1.3	1.1	-0.8	3.5	1.2	1.1	1.8
Total	**0.35**	**0.92**	**1.14**	**1.50**	**2.02**	**100**	**100**	**100**	**100**	**100**	**4.3**	**3.0**	**2.8**	**3.0**	**3.0**
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil	0.26	0.63	0.76	0.96	1.21	74.6	68.3	66.5	64.1	59.7	3.9	2.7	2.4	2.3	2.4
Natural gas	0.00	0.02	0.03	0.04	0.04	0.0	2.3	2.8	2.4	2.1	-	6.3	1.3	1.3	2.5
Electricity	0.09	0.27	0.35	0.50	0.77	24.9	29.4	30.7	33.5	38.3	5.1	3.7	3.7	4.4	4.0
Heat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	0.00	0.00	0.00	0.00	0.00	0.6	0.0	0.0	0.0	0.0	-100.0	-	-	-	-

Power generation Output

	TWh										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**1.17**	**3.93**	**5.09**	**7.04**	**10.47**	**100**	**100**	**100**	**100**	**100**	**5.4**	**3.8**	**3.3**	**4.1**	**3.7**
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil	0.01	0.04	0.00	0.00	0.00	0.9	1.0	0.0	0.0	0.0	5.5	-100.0	-	-	-100.0
Natural gas	1.16	3.89	5.04	7.00	10.43	99.1	99.0	99.1	99.4	99.6	5.4	3.8	3.3	4.1	3.7
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hydro	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Geothermal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	0.00	0.00	0.05	0.05	0.05	0.0	0.0	0.9	0.6	0.4	-	60.4	0.0	0.0	13.0

Power generation Input

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**0.46**	**1.22**	**1.44**	**1.93**	**2.52**	**100**	**100**	**100**	**100**	**100**	**4.3**	**2.3**	**3.0**	**2.7**	**2.7**
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil	0.00	0.01	0.00	0.00	0.00	0.6	0.9	0.0	0.0	0.0	5.7	-100.0	-	-	-100.0
Natural gas	0.46	1.21	1.44	1.93	2.52	99.4	99.1	100.0	100.0	100.0	4.3	2.5	3.0	2.7	2.8

Thermal Efficiency

	%						AAGR(%)				
	1990	2013	2020	2030	2040		1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**22**	**28**	**30**	**31**	**36**		**1.0**	**1.3**	**0.3**	**1.3**	**0.9**
Coal	-	-	-	-	-		-	-	-	-	-
Oil	32	30	-	-	-		-0.2	-	-	-	-
Natural gas	22	28	30	31	36		1.0	1.3	0.3	1.3	0.9

CO_2 emissions

	Mt-C										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**0.88**	**1.88**	**2.61**	**3.10**	**3.69**	**100**	**100**	**100**	**100**	**100**	**3.3**	**4.8**	**1.7**	**1.8**	**2.5**
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil	0.20	0.52	0.79	0.96	1.16	22.4	27.8	30.2	30.9	31.5	4.3	6.1	2.0	1.9	3.0
Natural Gas	0.68	1.36	1.82	2.14	2.53	77.6	72.2	69.8	69.1	68.5	3.0	4.3	1.6	1.7	2.3

Energy and economic indicators

						AAGR(%)				
	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
GDP (billions of 2005 US dollars)	6.9	10.1	13.4	18.9	24.9	1.7	4.1	3.5	2.8	3.4
Population (millions of people)	0.3	0.4	0.5	0.5	0.6	2.0	1.7	1.7	1.7	1.7
GDP per capita (thousands of 2005 USD/person)	26.8	24.9	29.4	35.0	39.0	-0.3	2.4	1.7	1.1	1.7
Primary energy consumption per capita (toe/person)	6.7	7.1	8.9	8.8	8.8	0.2	3.4	-0.1	0.0	0.8
Primary energy consumption per unit of GDP (toe/million 2005 US Dollars)	250	284	302	252	225	0.6	0.9	-1.8	-1.1	-0.8
Final energy consumption per unit of GDP (toe/million 2005 US Dollars)	51	91	85	80	81	2.6	-1.0	-0.6	0.2	-0.4
CO2 emissions per unit of GDP (t-C/million 2005 US Dollars)	128	186	195	164	148	1.6	0.6	-1.7	-1.0	-0.8
CO2 emissions per unit of primary energy consumption (t-C/toe)	0.5	0.7	0.6	0.7	0.7	1.1	-0.3	0.1	0.1	0.0
Automobile ownership volume (millions of vehicles)						-	-	-	-	-
Automobile ownership volume per capita (vehicles per person)	-	-	-	-	-	-	-	-	-	-

Brunei Darussalam [APS]

Primary energy consumption

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**1.72**	**2.87**	**3.11**	**3.65**	**4.47**	**100**	**100**	**100**	**100**	**100**	**2.2**	**1.2**	**1.6**	**2.0**	**1.7**
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil	0.05	0.70	0.53	0.71	0.94	2.7	24.3	17.1	19.6	21.0	12.4	-3.8	3.0	2.8	1.1
Natural gas	1.68	2.17	2.53	2.86	3.43	97.3	75.7	81.3	78.5	76.8	1.1	2.2	1.3	1.8	1.7
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hydro	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.1	0.1	-	-	-	1.0	-
Geothermal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	0.00	0.00	0.05	0.07	0.10	0.0	0.0	1.5	1.9	2.2	-	129.0	3.8	3.6	27.3
Biomass	0.00	0.00	0.03	0.03	0.03	0.0	0.0	1.0	0.8	0.7	-	-	0.0	0.0	-
Solar, Wind, Ocean	0.00	0.00	0.02	0.04	0.07	0.0	0.0	0.6	1.1	1.5	-	98.1	8.5	5.8	25.6
Biofuels	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Electricit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Final energy demand

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**0.35**	**0.92**	**0.84**	**1.12**	**1.56**	**100**	**100**	**100**	**100**	**100**	**4.3**	**-1.4**	**3.0**	**3.3**	**2.0**
Industry	0.06	0.17	0.23	0.32	0.44	17.4	18.3	27.2	28.4	28.1	4.5	4.4	3.4	3.2	3.6
Transportation	0.19	0.45	0.29	0.38	0.49	53.6	48.4	35.0	34.0	31.4	3.8	-5.8	2.7	2.5	0.3
Others	0.09	0.29	0.30	0.40	0.61	24.2	31.8	35.7	35.8	39.1	5.5	0.3	3.0	4.2	2.8
Non-energy	0.02	0.01	0.02	0.02	0.02	4.8	1.5	2.0	1.7	1.4	-0.8	2.8	1.2	1.1	1.6
Total	**0.35**	**0.92**	**0.84**	**1.12**	**1.56**	**100**	**100**	**100**	**100**	**100**	**4.3**	**-1.4**	**3.0**	**3.3**	**2.0**
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil	0.26	0.63	0.52	0.69	0.90	74.6	68.3	62.6	61.7	57.8	3.9	-2.6	2.8	2.7	1.3
Natural gas	-	0.02	0.03	0.04	0.04	-	2.3	3.9	3.3	2.7	-	6.3	1.3	1.3	2.5
Electricity	0.09	0.27	0.28	0.39	0.62	24.9	29.4	33.6	35.0	39.5	5.1	0.5	3.4	4.6	3.1
Heat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	0.00	0.00	0.00	0.00	0.00	0.6	0.0	0.0	0.0	0.0	-100.0	-	-	-	-

Power generation Output

	TWh										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**1.17**	**3.93**	**4.22**	**5.64**	**8.46**	**100**	**100**	**100**	**100**	**100**	**5.4**	**1.0**	**3.0**	**4.1**	**2.9**
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil	0.01	0.04	0.00	0.00	0.00	0.9	1.0	0.0	0.0	0.0	5.5	-100.0	-	-	-100.0
Natural gas	1.16	3.89	3.93	5.07	7.56	99.1	99.0	93.2	90.0	89.3	5.4	0.1	2.6	4.1	2.5
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hydro	0.0	0.0	0.0	0.03	0.03	0.0	0.0	0.0	0.5	0.3	-	-	-	1.0	-
Geothermal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	0.00	0.00	0.29	0.54	0.88	0.0	0.0	6.8	9.5	10.3	-	108.7	6.5	5.0	26.1

Power generation Input

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**0.46**	**1.22**	**1.16**	**1.48**	**2.03**	**100**	**100**	**100**	**100**	**100**	**4.3**	**-0.8**	**2.5**	**3.2**	**1.9**
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil	0.00	0.01	0.00	0.00	0.00	0.6	0.9	0.0	0.0	0.0	5.7	-100.0	-	-	-100.0
Natural gas	0.46	1.21	1.16	1.48	2.03	99.4	99.1	100.0	100.0	100.0	4.3	-0.7	2.5	3.2	1.9

Thermal Efficiency

	%					AAGR(%)				
	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**21.8**	**27.7**	**29.2**	**29.5**	**32.0**	**1.0**	**0.8**	**0.1**	**0.8**	**0.5**
Coal	-	-	-	-	-	-	-	-	-	-
Oil	32	30	-	-	-	-0.2	-	-	-	-
Natural gas	22	28	29	29	32	1.0	0.8	0.1	0.8	0.5

CO_2 emissions

	Mt-C										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**0.9**	**1.9**	**2.0**	**2.4**	**2.9**	**100**	**100**	**100**	**100**	**100**	**3.3**	**1.1**	**1.6**	**2.1**	**1.7**
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil	0.2	0.5	0.4	0.6	0.8	22.4	27.8	21.2	24.1	25.7	4.3	-2.7	2.9	2.7	1.4
Natural Gas	0.7	1.4	1.6	1.8	2.2	77.6	72.2	78.8	75.9	74.3	3.0	2.4	1.3	1.8	1.8

Energy and economic indicators

						AAGR(%)				
	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
GDP (billions of 2005 US dollars)	6.9	10.1	13.4	18.9	24.9	1.7	4.1	3.5	2.8	3.4
Population (millions of people)	0.3	0.4	0.5	0.5	0.6	2.0	1.7	1.7	1.7	1.7
GDP per capita (thousands of 2005 USD/person)	26.8	24.9	29.4	35.0	39.0	-0.3	2.4	1.7	1.1	1.7
Primary energy consumption per capita (toe/person)	6.7	7.1	6.8	6.8	7.0	0.2	-0.5	-0.1	0.3	0.0
Primary energy consumption per unit of GDP (toe/million 2005 US Dollars)	250	284	232	193	180	0.6	-2.8	-1.8	-0.7	-1.7
Final energy consumption per unit of GDP (toe/million 2005 US Dollars)	51	91	63	60	63	2.6	-5.3	-0.5	0.5	-1.4
CO_2 emissions per unit of GDP (t-C/million 2005 US Dollars)	128	186	152	127	118	1.6	-2.9	-1.8	-0.7	-1.7
CO_2 emissions per unit of primary energy consumption (t-C/toe)	0.5	0.7	0.7	0.7	0.7	1.1	0.0	0.0	0.0	0.0
Automobile ownership volume (millions of vehicles)						-	-	-	-	-
Automobile ownership volume per capita (vehicles per person)	-	-	-	-	-	-	-	-	-	-

Cambodia [BAU]

Primary energy consumption

	MTOE										AAGR(%)				
	1995	2013	2020	2030	2040	1995	2013	2020	2030	2040	1995-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**2.84**	**6.82**	**8.82**	**11.86**	**17.46**	**100**	**100**	**100**	**100**	**100**	**5.0**	**3.8**	**3.0**	**3.9**	**3.5**
Coal	-	0.05	0.94	1.42	2.67	-	0.7	10.6	11.9	15.3	-	54.1	4.2	6.5	16.3
Oil	0.51	2.49	3.41	4.96	7.57	18.0	36.6	38.6	41.8	43.4	9.2	4.6	3.8	4.3	4.2
Natural gas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hydro	0.00	0.09	0.31	1.15	2.84	0.0	1.3	3.5	9.7	16.3	-	19.9	14.0	9.4	13.8
Geothermal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	2.33	4.19	4.17	4.33	4.37	82.0	61.5	47.2	36.5	25.1	3.3	-0.1	0.4	0.1	0.2
Biomass	2.33	4.00	4.17	4.33	4.37	82.0	58.6	47.2	36.5	25.1	3.1	0.6	0.4	0.1	0.3
Solar, Wind, Ocean	-	0.00	0.00	0.00	0.00	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	-
Biofuels	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Electricit	-	0.20	0.00	0.00	0.00	-	2.9	0.0	0.0	0.0	-	-100.0	-	-	-100.0

Final energy demand

	MTOE										AAGR(%)				
	1995	2013	2020	2030	2040	1995	2013	2020	2030	2040	1995-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**2.54**	**6.00**	**7.34**	**9.67**	**14.29**	**100**	**100**	**100**	**100**	**100**	**4.9**	**2.9**	**2.8**	**4.0**	**3.3**
Industry	0.44	0.90	1.04	1.49	2.59	17.2	15.0	14.2	15.4	18.1	4.1	2.1	3.6	5.7	4.0
Transportation	0.38	1.95	2.48	3.58	6.15	15.0	32.5	33.8	37.0	43.0	9.5	3.5	3.7	5.6	4.3
Others	1.72	3.13	3.80	4.57	5.51	67.5	52.2	51.7	47.3	38.5	3.4	2.8	1.9	1.9	2.1
Non-energy	0.01	0.02	0.02	0.03	0.05	0.3	0.3	0.3	0.3	0.3	5.6	3.1	3.0	3.9	3.3
Total	**2.54**	**6.00**	**7.34**	**9.67**	**14.29**	**100**	**100**	**100**	**100**	**100**	**4.9**	**2.9**	**2.8**	**4.0**	**3.3**
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil	0.44	2.29	3.19	4.43	7.02	17.3	38.2	43.4	45.8	49.1	9.6	4.8	3.3	4.7	4.2
Natural gas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Electricity	0.01	0.28	0.61	1.57	3.58	0.4	4.7	8.3	16.3	25.1	20.4	11.5	9.9	8.6	9.8
Heat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	2.09	3.42	3.54	3.67	3.69	82.3	57.1	48.3	37.9	25.8	2.8	0.5	0.3	0.1	0.3

Power generation Output

	TWh										AAGR(%)				
	1995	2013	2020	2030	2040	1995	2013	2020	2030	2040	1995-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**0.20**	**1.77**	**7.70**	**19.87**	**45.31**	**100**	**100**	**100**	**100**	**100**	**12.9**	**23.4**	**9.9**	**8.6**	**12.8**
Coal	-	0.17	3.50	5.93	11.80	-	9.5	45.4	29.9	26.0	-	54.2	5.4	7.1	17.0
Oil	0.20	0.58	0.53	0.47	0.44	100.0	32.7	6.8	2.4	1.0	6.1	-1.4	-1.1	-0.8	-1.0
Natural gas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hydro	0.00	1.02	3.62	13.41	33.01	0.0	57.4	47.0	67.5	72.9	-	19.9	14.0	9.4	13.8
Geothermal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	0.00	0.01	0.06	0.06	0.06	0.0	0.4	0.8	0.3	0.1	-	36.1	0.0	0.0	8.3

Power generation Input

	MTOE										AAGR(%)				
	1995	2013	2020	2030	2040	1995	2013	2020	2030	2040	1995-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**0.10**	**0.20**	**1.08**	**1.54**	**2.79**	**100**	**100**	**100**	**100**	**100**	**3.9**	**27.3**	**3.6**	**6.1**	**10.3**
Coal	-	0.05	0.94	1.42	2.67	-	22.9	87.1	91.9	95.9	-	54.1	4.2	6.5	16.3
Oil	0.10	0.15	0.14	0.13	0.12	100.0	77.1	12.9	8.1	4.1	2.5	-1.4	-1.1	-0.8	-1.0
Natural gas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Thermal Efficiency

	%						AAGR(%)				
	1995	2013	2020	2030	2040		1995-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**17**	**32**	**32**	**36**	**38**		**3.6**	**-0.1**	**1.1**	**0.6**	**0.6**
Coal	-	32	32	36	38		-	0.1	1.2	0.5	0.7
Oil	17	33	33	33	33		3.6	0.0	0.0	0.0	0.0
Natural gas	-	-	-	-	-		-	-	-	-	-

CO_2 emissions

	Mt-C										AAGR(%)				
	1995	2013	2020	2030	2040	1995	2013	2020	2030	2040	1995-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**0.40**	**1.96**	**3.62**	**5.13**	**8.62**	**100**	**100**	**100**	**100**	**100**	**9.3**	**9.1**	**3.5**	**5.3**	**5.6**
Coal	-	0.05	1.03	1.56	2.93	-	2.5	28.5	30.4	34.0	-	54.1	4.2	6.5	16.3
Oil	0.40	1.91	2.59	3.57	5.69	100.0	97.5	71.5	69.6	66.0	9.1	4.4	3.3	4.8	4.1
Natural Gas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Energy and economic indicators

						AAGR(%)				
	1995	2013	2020	2030	2040	1995-2013	2013-2020	2020-2030	2030-2040	2013-2040
GDP (billions of 2005 US dollars)	2.8	10.7	17.6	32.4	52.7	7.7	7.3	6.3	5.0	6.1
Population (millions of people)	10.7	15.1	17.1	20.0	23.4	1.9	1.8	1.6	1.6	1.6
GDP per capita (thousands of 2005 USD/person)	0.26	0.71	1.0	1.6	2.3	5.6	5.4	4.6	3.3	4.4
Primary energy consumption per capita (toe/person)	0.27	0.45	0.52	0.59	0.75	3.0	1.9	1.4	2.3	1.9
Primary energy consumption per unit of GDP (toe/million 2005 US Dollars)	1,002	636	502	366	331	-2.5	-3.3	-3.1	-1.0	-2.4
Final energy consumption per unit of GDP (toe/million 2005 US Dollars)	899	560	418	299	271	-2.6	-4.1	-3.3	-1.0	-2.6
CO2 emissions per unit of GDP (t-C/million 2005 US Dollars)	140	183	206	158	164	1.5	1.7	-2.6	0.3	-0.4
CO2 emissions per unit of primary energy consumption (t-C/toe)	0.14	0.29	0.41	0.43	0.49	4.1	5.2	0.5	1.3	2.0
Automobile ownership volume (millions of vehicles)						-	-	-	-	-
Automobile ownership volume per capita (vehicles per person)	-	-	-	-	-	-	-	-	-	-

Cambodia [APS]

Primary energy consumption

	MTOE										AAGR(%)				
	1995	2013	2020	2030	2040	1995	2013	2020	2030	2040	1995-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**2.84**	**6.82**	**8.43**	**11.05**	**15.51**	**100**	**100**	**100**	**100**	**100**	**5.0**	**3.1**	**2.7**	**3.4**	**3.1**
Coal	-	0.05	0.89	2.04	3.12	0.0	0.7	10.5	18.5	20.1	-	52.8	8.7	4.3	17.0
Oil	0.51	2.49	3.26	4.44	6.58	18.0	36.6	38.6	40.2	42.4	9.2	3.9	3.2	4.0	3.7
Natural gas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hydro	-	0.09	0.29	0.71	2.06	0.0	1.3	3.5	6.4	13.3	-	18.9	9.2	11.3	12.4
Geothermal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	2.33	4.19	4.00	3.86	3.75	82.0	61.5	47.4	34.9	24.2	3.3	-0.7	-0.4	-0.3	-0.4
Biomass	2.33	4.00	4.00	3.86	3.75	82.0	58.6	47.4	34.9	24.2	3.1	0.0	-0.4	-0.3	-0.2
Solar, Wind, Ocean	-	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.0	-	-	0.0	0.0	-
Biofuels	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Electricit	-	0.20	0.00	0.00	0.00	0.0	2.9	0.0	0.0	0.0	-	-100.0	-	-	-100.0

Final energy demand

	MTOE										AAGR(%)				
	1995	2013	2020	2030	2040	1995	2013	2020	2030	2040	1995-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**2.54**	**6.00**	**7.00**	**8.57**	**12.18**	**100**	**100**	**100**	**100**	**100**	**4.9**	**2.2**	**2.0**	**3.6**	**2.7**
Industry	0.44	0.90	0.99	1.31	2.20	17.2	15.0	14.2	15.3	18.1	4.1	1.4	2.9	5.3	3.4
Transportation	0.38	1.95	2.37	3.18	5.25	15.0	32.5	33.9	37.1	43.1	9.5	2.8	3.0	5.1	3.7
Others	1.72	3.13	3.61	4.04	4.68	67.5	52.2	51.7	47.2	38.5	3.4	2.1	1.1	1.5	1.5
Non-energy	0.01	0.02	0.02	0.03	0.05	0.3	0.3	0.3	0.4	0.4	5.6	3.1	3.0	3.8	3.3
Total	**2.54**	**6.00**	**7.00**	**8.57**	**12.18**	**100**	**100**	**100**	**100**	**100**	**4.9**	**2.2**	**2.0**	**3.6**	**2.7**
Coal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil	0.44	2.29	3.04	3.94	5.99	17.3	38.2	43.5	46.0	49.2	9.6	4.1	2.6	4.3	3.6
Natural gas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Electricity	0.01	0.28	0.58	1.39	3.05	0.4	4.7	8.3	16.2	25.0	20.4	10.7	9.1	8.2	9.2
Heat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	2.09	3.42	3.37	3.24	3.14	82.3	57.1	48.2	37.8	25.8	2.8	-0.2	-0.4	-0.3	-0.3

Power generation Output

	TWh										AAGR(%)				
	1995	2013	2020	2030	2040	1995	2013	2020	2030	2040	1995-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**0.20**	**1.77**	**7.33**	**17.57**	**38.51**	**100**	**100**	**100**	**100**	**100**	**12.9**	**22.5**	**9.1**	**8.2**	**12.1**
Coal	-	0.17	3.30	8.88	13.93	0.0	9.5	45.0	50.5	36.2	-	52.9	10.4	4.6	17.8
Oil	0.20	0.58	0.50	0.35	0.52	100.0	32.7	6.8	2.0	1.3	6.1	-2.2	-3.4	3.9	-0.4
Natural gas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hydro	-	1.02	3.41	8.21	23.94	0.0	57.4	46.5	46.7	62.2	-	18.9	9.2	11.3	12.4
Geothermal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	0.01	0.13	0.13	0.13	0.0	0.4	1.7	0.7	0.3	-	52.5	0.0	0.0	11.6

Power generation Input

	MTOE										AAGR(%)				
	1995	2013	2020	2030	2040	1995	2013	2020	2030	2040	1995-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**0.10**	**0.20**	**1.02**	**2.14**	**3.26**	**100**	**100**	**100**	**100**	**100**	**3.9**	**26.3**	**7.7**	**4.3**	**10.9**
Coal	-	0.046	0.886	2.044	3.121	0.0	22.9	87.1	95.6	95.8	-	52.8	8.7	4.3	17.0
Oil	0.10	0.153	0.131	0.093	0.136	100.0	77.1	12.9	4.4	4.2	2.5	-2.2	-3.4	3.9	-0.4
Natural gas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Thermal Efficiency

	%						AAGR(%)				
	1995	2013	2020	2030	2040		1995-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**17.2**	**32.4**	**32.1**	**37.1**	**38.1**		**3.6**	**-0.1**	**1.5**	**0.3**	**0.6**
Coal	-	32	32	37	38		-	0.1	1.6	0.3	0.7
Oil	17	33	33	33	33		3.6	0.0	0.0	0.0	0.0
Natural gas	-	-	-	-	-		-	-	-	-	-

CO_2 emissions

	Mt-C										AAGR(%)				
	1995	2013	2020	2030	2040	1995	2013	2020	2030	2040	1995-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**0.40**	**1.96**	**3.44**	**4.31**	**6.73**	**100**	**100**	**100**	**100**	**100**	**9.3**	**8.4**	**2.3**	**4.5**	**4.7**
Coal	-	0.05	0.97	1.16	1.84	0.0	2.5	28.3	26.9	27.3	-	52.8	1.8	4.7	14.3
Oil	0.40	1.91	2.47	3.16	4.89	100.0	97.5	71.7	73.1	72.7	9.1	3.7	2.5	4.5	3.5
Natural Gas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Energy and economic indicators

						AAGR(%)				
	1995	2013	2020	2030	2040	1995-2013	2013-2020	2020-2030	2030-2040	2013-2040
GDP (billions of 2005 US dollars)	2.8	10.7	17.6	32.4	52.7	7.7	7.3	6.3	5.0	6.1
Population (millions of people)	10.7	15.1	17.1	20.0	23.4	1.9	1.8	1.6	1.6	1.6
GDP per capita (thousands of 2005 USD/person)	0.26	0.71	1.0	1.6	2.3	5.6	5.4	4.6	3.3	4.4
Primary energy consumption per capita (toe/person)	0.27	0.45	0.49	0.55	0.66	3.0	1.3	1.1	1.8	1.4
Primary energy consumption per unit of GDP (toe/million 2005 US Dollars)	1,002	636	480	341	294	-2.5	-3.9	-3.3	-1.5	-2.8
Final energy consumption per unit of GDP (toe/million 2005 US Dollars)	899	560	398	265	231	-2.6	-4.7	-4.0	-1.4	-3.2
CO_2 emissions per unit of GDP (t-C/million 2005 US Dollars)	140	183	196	133	128	1.5	1.0	-3.8	-0.4	-1.3
CO_2 emissions per unit of primary energy consumption (t-C/toe)	0.14	0.29	0.41	0.39	0.43	4.1	5.1	-0.4	1.1	1.5
Automobile ownership volume (millions of vehicles)						-	-	-	-	-
Automobile ownership volume per capita (vehicles per person)	-	-	-	-	-	-	-	-	-	-

China [BAU]

Primary energy consumption

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**870.7**	**3,021.9**	**3,532.8**	**4,191.5**	**4,544.8**	**100**	**100**	**100**	**100**	**100**	**5.6**	**2.3**	**1.7**	**0.8**	**1.5**
Coal	527.6	2,044.9	2,225.2	2,436.3	2,458.5	60.6	67.7	63.0	58.1	54.1	6.1	1.2	0.9	0.1	0.7
Oil	118.8	478.3	624.6	791.2	880.1	13.6	15.8	17.7	18.9	19.4	6.2	3.9	2.4	1.1	2.3
Natural gas	12.8	140.2	209.7	389.9	534.2	1.5	4.6	5.9	9.3	11.8	11.0	5.9	6.4	3.2	5.1
Nuclear	0.0	29.1	102.4	162.3	222.3	0.0	1.0	2.9	3.9	4.9	-	19.7	4.7	3.2	7.8
Hydro	10.9	78.2	99.0	104.3	108.8	1.3	2.6	2.8	2.5	2.4	8.9	3.4	0.5	0.4	1.2
Geothermal	0.0	4.5	6.4	8.6	10.0	0.0	0.1	0.2	0.2	0.2	-	5.1	3.1	1.5	3.0
Others	200.6	246.7	265.6	298.9	331.0	23.0	8.2	7.5	7.1	7.3	0.9	1.1	1.2	1.0	1.1
Biomass	200.4	214.0	215.5	219.4	216.2	23.0	7.1	6.1	5.2	4.8	0.3	0.1	0.2	-0.1	0.0
Solar, Wind, Ocean	0.0	32.0	48.3	76.2	109.5	0.0	1.1	1.4	1.8	2.4	34.9	6.0	4.7	3.7	4.7
Biofuels	0.0	1.7	2.8	4.3	6.3	0.0	0.1	0.1	0.1	0.1	-	7.2	4.5	4.1	5.0
Electricit	0.2	-1.0	-1.0	-1.0	-1.0	0.0	0.0	0.0	0.0	0.0	-208.4	0.0	0.0	0.0	0.0

Final energy demand

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**664.2**	**1,814.1**	**2,162.3**	**2,548.0**	**2,770.9**	**100**	**100**	**100**	**100**	**100**	**4.5**	**2.5**	**1.7**	**0.8**	**1.6**
Industry	243.7	878.0	990.1	1,079.3	1,097.2	36.7	48.4	45.8	42.4	39.6	5.7	1.7	0.9	0.2	0.8
Transportation	33.5	245.5	347.4	482.9	558.9	5.0	13.5	16.1	19.0	20.2	9.1	5.1	3.3	1.5	3.1
Others	344.1	547.8	648.7	777.9	879.5	51.8	30.2	30.0	30.5	31.7	2.0	2.4	1.8	1.2	1.8
Non-energy	42.9	142.8	176.1	208.0	235.2	6.5	7.9	8.1	8.2	8.5	5.4	3.0	1.7	1.2	1.9
Total	**664.2**	**1,814.1**	**2,162.3**	**2,548.0**	**2,770.9**	**100**	**100**	**100**	**100**	**100**	**4.5**	**2.5**	**1.7**	**0.8**	**1.6**
Coal	318.1	603.2	624.8	587.0	528.2	47.9	33.3	28.9	23.0	19.1	2.8	0.5	-0.6	-1.0	-0.5
Oil	84.6	434.5	575.7	731.9	815.9	12.7	24.0	26.6	28.7	29.4	7.4	4.1	2.4	1.1	2.4
Natural gas	8.9	93.8	147.0	237.9	325.7	1.3	5.2	6.8	9.3	11.8	10.8	6.6	4.9	3.2	4.7
Electricity	39.0	386.3	507.0	670.4	774.5	5.9	21.3	23.4	26.3	28.0	10.5	4.0	2.8	1.5	2.6
Heat	13.2	76.2	89.6	99.2	101.2	2.0	4.2	4.1	3.9	3.7	7.9	2.3	1.0	0.2	1.1
Others	200.4	220.0	218.2	221.5	225.4	30.2	12.1	10.1	8.7	8.1	0.4	-0.1	0.2	0.2	0.1

Power generation Output

	TWh										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**621.3**	**5,422.2**	**7,017.0**	**9,184.9**	**10,535.5**	**100**	**100**	**100**	**100**	**100**	**9.9**	**3.8**	**2.7**	**1.4**	**2.5**
Coal	441.4	4,090.5	4,925.2	6,237.4	6,819.4	71.0	75.4	70.2	67.9	64.7	10.2	2.7	2.4	0.9	1.9
Oil	50.4	6.6	6.5	6.3	6.2	8.1	0.1	0.1	0.1	0.1	-8.5	-0.3	-0.2	-0.2	-0.2
Natural gas	2.8	99.3	160.4	480.8	729.0	0.4	1.8	2.3	5.2	6.9	16.9	7.1	11.6	4.3	7.7
Nuclear	0.0	111.6	392.8	622.9	853.0	0.0	2.1	5.6	6.8	8.1	-	19.7	4.7	3.2	7.8
Hydro	126.7	909.2	1,151.1	1,212.8	1,264.7	20.4	16.8	16.4	13.2	12.0	8.9	3.4	0.5	0.4	1.2
Geothermal	0.1	0.1	0.3	0.3	0.4	0.0	0.0	0.0	0.0	0.0	2.9	14.6	1.5	1.4	4.7
Others	0.0	204.8	380.8	624.2	862.8	0.0	3.8	5.4	6.8	8.2	53.3	9.3	5.1	3.3	5.5

Power generation Input

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**144.7**	**949.3**	**1,141.9**	**1,480.0**	**1,629.7**	**100**	**100**	**100**	**100**	**100**	**8.5**	**2.7**	**2.6**	**1.0**	**2.0**
Coal	131.8	925.8	1,107.6	1,390.2	1,506.4	91.0	97.5	97.0	93.9	92.4	8.8	2.6	2.3	0.8	1.8
Oil	12.4	1.6	1.5	1.5	1.4	8.5	0.2	0.1	0.1	0.1	-8.5	-0.7	-0.4	-0.3	-0.4
Natural gas	0.6	22.0	32.7	88.3	121.9	0.4	2.3	2.9	6.0	7.5	16.9	5.9	10.4	3.3	6.6

Thermal Efficiency

	%										AAGR(%)				
	1990	2013	2020	2030	2040						1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**29**	**38**	**38**	**39**	**40**						**1.1**	**0.1**	**0.2**	**0.2**	**0.2**
Coal	29	38	38	39	39						1.2	0.1	0.1	0.1	0.1
Oil	35	35	36	37	37						0.0	0.4	0.2	0.2	0.2
Natural gas	39	39	42	47	51						0.0	1.2	1.1	1.0	1.0

CO_2 emissions

	Mt-C										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**637.8**	**2,573.7**	**2,907.1**	**3,364.0**	**3,533.5**	**100**	**100**	**100**	**100**	**100**	**6.3**	**1.8**	**1.5**	**0.5**	**1.2**
Coal	549.0	2,170.2	2,358.8	2,581.5	2,601.3	86.1	84.3	81.1	76.7	73.6	6.2	1.2	0.9	0.1	0.7
Oil	83.5	323.9	427.3	552.2	617.0	13.1	12.6	14.7	16.4	17.5	6.1	4.0	2.6	1.1	2.4
Natural Gas	5.3	79.6	121.0	230.3	315.2	0.8	3.1	4.2	6.8	8.9	12.5	6.2	6.6	3.2	5.2

Energy and economic indicators

						AAGR(%)				
	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
GDP (billions of 2005 US dollars)	531	4,913	7,471	12,297	17,684	10.2	6.2	5.1	3.7	4.9
Population (millions of people)	1,143	1,361	1,418	1,450	1,428	0.8	0.6	0.2	-0.1	0.2
GDP per capita (thousands of 2005 USD/person)	0.46	3.61	5.3	8.5	12.4	9.3	5.5	4.9	3.9	4.7
Primary energy consumption per capita (toe/person)	0.76	2.22	2.49	2.89	3.18	4.8	1.7	1.5	1.0	1.3
Primary energy consumption per unit of GDP (toe/million 2005 US Dollars)	1,641	615	473	341	257	-4.2	-3.7	-3.2	-2.8	-3.2
Final energy consumption per unit of GDP (toe/million 2005 US Dollars)	1,252	369	289	207	157	-5.2	-3.4	-3.3	-2.8	-3.1
CO_2 emissions per unit of GDP (t-C/million 2005 US Dollars)	1,202	524	389	274	200	-3.5	-4.2	-3.5	-3.1	-3.5
CO_2 emissions per unit of primary energy consumption (t-C/toe)	0.73	0.85	0.82	0.80	0.78	0.7	-0.5	-0.2	-0.3	-0.3
Automobile ownership volume (millions of vehicles)	5.3	126.7	247.7	354.7	420.9	14.8	10.1	3.7	1.7	4.5
Automobile ownership volume per capita (vehicles per person)	0.00	0.09	0.17	0.24	0.29	13.9	9.4	3.4	1.9	4.4

China [APS]

Primary energy consumption

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**870.7**	**3,021.9**	**3,348.6**	**3,720.6**	**3,810.3**	**100**	**100**	**100**	**100**	**100**	**5.6**	**1.5**	**1.1**	**0.2**	**0.9**
Coal	527.6	2,044.9	2,045.2	1,982.7	1,759.6	60.6	67.7	61.1	53.3	46.2	6.1	0.0	-0.3	-1.2	-0.6
Oil	118.8	478.3	599.9	722.2	763.3	13.6	15.8	17.9	19.4	20.0	6.2	3.3	1.9	0.6	1.7
Natural gas	12.8	140.2	199.1	340.4	439.2	1.5	4.6	5.9	9.1	11.5	11.0	5.1	5.5	2.6	4.3
Nuclear	0.0	29.1	117.4	236.2	354.9	0.0	1.0	3.5	6.3	9.3	-	22.1	7.2	4.2	9.7
Hydro	10.9	78.2	107.2	115.0	122.0	1.3	2.6	3.2	3.1	3.2	8.9	4.6	0.7	0.6	1.7
Geothermal	0.0	4.5	6.4	8.7	10.2	0.0	0.1	0.2	0.2	0.3	-	5.1	3.2	1.5	3.1
Others	200.6	246.7	273.3	315.4	361.2	23.0	8.2	8.2	8.5	9.5	0.9	1.5	1.4	1.4	1.4
Biomass	200.4	214.0	215.4	211.5	200.9	23.0	7.1	6.4	5.7	5.3	0.3	0.1	-0.2	-0.5	-0.2
Solar, Wind, Ocean	0.0	32.0	55.7	92.8	136.3	0.0	1.1	1.7	2.5	3.6	34.9	8.2	5.2	3.9	5.5
Biofuels	0.0	1.7	3.2	12.2	25.1	0.0	0.1	0.1	0.3	0.7	-	9.6	14.2	7.5	10.5
Electricit	0.2	-1.0	-1.0	-1.0	-1.0	0.0	0.0	0.0	0.0	0.0	-208.4	0.0	0.0	0.0	0.0

Final energy demand

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**664.2**	**1,814.1**	**2,073.1**	**2,316.3**	**2,416.6**	**100**	**100**	**100**	**100**	**100**	**4.5**	**1.9**	**1.1**	**0.4**	**1.1**
Industry	243.7	878.0	938.8	956.7	951.0	36.7	48.4	45.3	41.3	39.4	5.7	1.0	0.2	-0.1	0.3
Transportation	33.5	245.5	335.1	451.6	503.7	5.0	13.5	16.2	19.5	20.8	9.1	4.5	3.0	1.1	2.7
Others	344.1	547.8	623.1	700.0	726.7	51.8	30.2	30.1	30.2	30.1	2.0	1.9	1.2	0.4	1.1
Non-energy	42.9	142.8	176.1	208.0	235.2	6.5	7.9	8.5	9.0	9.7	5.4	3.0	1.7	1.2	1.9
Total	**664.2**	**1,814.1**	**2,073.1**	**2,316.3**	**2,416.6**	**100**	**100**	**100**	**100**	**100**	**4.5**	**1.9**	**1.1**	**0.4**	**1.1**
Coal	318.1	603.2	595.3	521.1	445.3	47.9	33.3	28.7	22.5	18.4	2.8	-0.2	-1.3	-1.6	-1.1
Oil	84.6	434.5	553.2	668.8	708.9	12.7	24.0	26.7	28.9	29.3	7.4	3.5	1.9	0.6	1.8
Natural gas	8.9	93.8	142.5	222.5	299.9	1.3	5.2	6.9	9.6	12.4	10.8	6.2	4.6	3.0	4.4
Electricity	39.0	386.3	484.8	601.4	653.9	5.9	21.3	23.4	26.0	27.1	10.5	3.3	2.2	0.8	2.0
Heat	13.2	76.2	85.4	89.3	87.7	2.0	4.2	4.1	3.9	3.6	7.9	1.6	0.5	-0.2	0.5
Others	200.4	220.0	211.9	213.2	220.9	30.2	12.1	10.2	9.2	9.1	0.4	-0.5	0.1	0.4	0.0

Power generation Output

	TWh										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**621.3**	**5,422.2**	**6,709.9**	**8,239.2**	**8,895.0**	**100**	**100**	**100**	**100**	**100**	**9.9**	**3.1**	**2.1**	**0.8**	**1.9**
Coal	441.4	4,090.5	4,376.8	4,779.1	4,436.1	71.0	75.4	65.2	58.0	49.9	10.2	1.0	0.9	-0.7	0.3
Oil	50.4	6.6	6.5	6.3	6.2	8.1	0.1	0.1	0.1	0.1	-8.5	-0.3	-0.2	-0.2	-0.2
Natural gas	2.8	99.3	142.6	368.5	474.5	0.4	1.8	2.1	4.5	5.3	16.9	5.3	10.0	2.6	6.0
Nuclear	0.0	111.6	450.7	906.2	1,361.7	0.0	2.1	6.7	11.0	15.3	-	22.1	7.2	4.2	9.7
Hydro	126.7	909.2	1,247.0	1,337.2	1,418.0	20.4	16.8	18.6	16.2	15.9	8.9	4.6	0.7	0.6	1.7
Geothermal	0.1	0.1	0.3	0.4	0.5	0.0	0.0	0.0	0.0	0.0	2.9	15.0	3.7	2.6	6.1
Others	0.0	204.8	486.2	841.4	1,197.9	0.0	3.8	7.2	10.2	13.5	53.3	13.1	5.6	3.6	6.8

Power generation Input

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**144.7**	**949.3**	**1,012.2**	**1,125.6**	**1,047.3**	**100**	**100**	**100**	**100**	**100**	**8.5**	**0.9**	**1.1**	**-0.7**	**0.4**
Coal	131.8	925.8	981.9	1,058.4	969.9	91.0	97.5	97.0	94.0	92.6	8.8	0.8	0.8	-0.9	0.2
Oil	12.4	1.6	1.5	1.4	1.3	8.5	0.2	0.1	0.1	0.1	-8.5	-0.9	-0.6	-0.6	-0.7
Natural gas	0.6	22.0	28.7	65.8	76.0	0.4	2.3	2.8	5.8	7.3	16.9	3.9	8.6	1.5	4.7

Thermal Efficiency

	%						AAGR(%)				
	1990	2013	2020	2030	2040		1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**29**	**38**	**38**	**39**	**40**		**1.1**	**0.2**	**0.2**	**0.3**	**0.2**
Coal	29	38	38	39	39		1.2	0.1	0.1	0.1	0.1
Oil	35	35	37	38	40		0.0	0.7	0.4	0.4	0.5
Natural gas	39	39	43	48	54		0.0	1.3	1.2	1.1	1.2

CO_2 emissions

	Mt-C										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**637.8**	**2,573.7**	**2,685.3**	**2,784.8**	**2,620.1**	**100**	**100**	**100**	**100**	**100**	**6.3**	**0.6**	**0.4**	**-0.6**	**0.1**
Coal	549.0	2,170.2	2,164.3	2,091.7	1,846.5	86.1	84.3	80.6	75.1	70.5	6.2	0.0	-0.3	-1.2	-0.6
Oil	83.5	323.9	406.7	494.5	519.2	13.1	12.6	15.1	17.8	19.8	6.1	3.3	2.0	0.5	1.8
Natural Gas	5.3	79.6	114.2	198.6	254.3	0.8	3.1	4.3	7.1	9.7	12.5	5.3	5.7	2.5	4.4

Energy and economic indicators

						AAGR(%)				
	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
GDP (billions of 2005 US dollars)	531	4,913	7,471	12,297	17,684	10.2	6.2	5.1	3.7	4.9
Population (millions of people)	1,143	1,361	1,418	1,450	1,428	0.8	0.6	0.2	-0.1	0.2
GDP per capita (thousands of 2005 USD/person)	0.46	3.61	5.3	8.5	12.4	9.3	5.5	4.9	3.9	4.7
Primary energy consumption per capita (toe/person)	0.76	2.22	2.36	2.57	2.67	4.8	0.9	0.8	0.4	0.7
Primary energy consumption per unit of GDP (toe/million 2005 US Dollars)	1,641	615	448	303	215	-4.2	-4.4	-3.9	-3.3	-3.8
Final energy consumption per unit of GDP (toe/million 2005 US Dollars)	1,252	369	278	188	137	-5.2	-4.0	-3.8	-3.2	-3.6
CO_2 emissions per unit of GDP (t-C/million 2005 US Dollars)	1,202	524	359	226	148	-3.5	-5.2	-4.5	-4.2	-4.6
CO_2 emissions per unit of primary energy consumption (t-C/toe)	0.73	0.85	0.80	0.75	0.69	0.7	-0.9	-0.7	-0.8	-0.8
Automobile ownership volume (millions of vehicles)	5.3	126.7	247.7	354.7	420.9	14.8	10.1	3.7	1.7	4.5
Automobile ownership volume per capita (vehicles per person)	0.00	0.09	0.17	0.24	0.29	13.9	9.4	3.4	1.9	4.4

India [BAU]

Primary energy consumption

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**306.6**	**775.4**	**1,080.7**	**1,617.6**	**2,281.1**	**100**	**100**	**100**	**100**	**100**	**4.1**	**4.9**	**4.1**	**3.5**	**4.1**
Coal	93.6	341.4	502.2	780.9	1,128.9	30.5	44.0	46.5	48.3	49.5	5.8	5.7	4.5	3.8	4.5
Oil	61.1	175.9	259.2	401.8	566.5	19.9	22.7	24.0	24.8	24.8	4.7	5.7	4.5	3.5	4.4
Natural gas	10.6	44.5	65.9	108.9	170.0	3.4	5.7	6.1	6.7	7.5	6.4	5.8	5.1	4.6	5.1
Nuclear	1.6	8.9	18.9	49.3	80.3	0.5	1.2	1.7	3.0	3.5	7.8	11.3	10.1	5.0	8.5
Hydro	6.2	12.2	16.0	23.7	35.1	2.0	1.6	1.5	1.5	1.5	3.0	4.0	4.0	4.0	4.0
Geothermal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	133.6	192.6	218.5	253.0	300.3	43.6	24.8	20.2	15.6	13.2	1.6	1.8	1.5	1.7	1.7
Biomass	133.5	188.3	209.5	230.0	254.7	43.5	24.3	19.4	14.2	11.2	1.5	1.5	0.9	1.0	1.1
Solar, Wind, Ocean	0.0	3.6	8.3	21.9	43.6	0.0	0.5	0.8	1.4	1.9	29.0	12.6	10.1	7.1	9.6
Biofuels	0.0	0.2	0.2	0.7	1.5	0.0	0.0	0.0	0.0	0.1	-	6.2	11.6	8.2	8.9
Electricit	0.1	0.5	0.5	0.5	0.5	0.0	0.1	0.0	0.0	0.0	6.3	0.0	0.0	0.0	0.0

Final energy demand

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**243.5**	**528.3**	**722.9**	**1,065.4**	**1,508.4**	**100**	**100**	**100**	**100**	**100**	**3.4**	**4.6**	**4.0**	**3.5**	**4.0**
Industry	66.9	179.1	251.3	396.3	592.8	27.5	33.9	34.8	37.2	39.3	4.4	5.0	4.7	4.1	4.5
Transportation	20.8	74.8	126.1	224.3	333.8	8.6	14.2	17.4	21.1	22.1	5.7	7.7	5.9	4.1	5.7
Others	142.5	238.0	296.8	374.4	485.7	58.5	45.1	41.1	35.1	32.2	2.3	3.2	2.4	2.6	2.7
Non-energy	13.3	36.4	48.8	70.3	96.0	5.5	6.9	6.7	6.6	6.4	4.5	4.3	3.7	3.2	3.7
Total	**243.5**	**528.3**	**722.9**	**1,065.4**	**1,508.4**	**100**	**100**	**100**	**100**	**100**	**3.4**	**4.6**	**4.0**	**3.5**	**4.0**
Coal	38.9	103.5	145.6	221.9	324.7	16.0	19.6	20.1	20.8	21.5	4.3	5.0	4.3	3.9	4.3
Oil	50.2	150.0	230.8	369.6	530.9	20.6	28.4	31.9	34.7	35.2	4.9	6.3	4.8	3.7	4.8
Natural gas	5.6	26.6	38.3	60.9	91.7	2.3	5.0	5.3	5.7	6.1	7.0	5.3	4.7	4.2	4.7
Electricity	18.5	76.5	122.6	218.7	352.1	7.6	14.5	17.0	20.5	23.3	6.4	7.0	6.0	4.9	5.8
Heat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	130.3	171.7	185.6	194.3	209.0	53.5	32.5	25.7	18.2	13.9	1.2	1.1	0.5	0.7	0.7

Power generation Output

	TWh										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**292.7**	**1,193.5**	**1,881.0**	**3,254.3**	**5,076.6**	**100**	**100**	**100**	**100**	**100**	**6.3**	**6.7**	**5.6**	**4.5**	**5.5**
Coal	191.6	869.2	1,360.2	2,244.8	3,376.7	65.5	72.8	72.3	69.0	66.5	6.8	6.6	5.1	4.2	5.2
Oil	13.3	23.2	25.5	26.5	24.8	4.5	1.9	1.4	0.8	0.5	2.4	1.4	0.4	-0.7	0.2
Natural gas	10.0	65.1	109.1	211.4	380.6	3.4	5.5	5.8	6.5	7.5	8.5	7.7	6.8	6.1	6.8
Nuclear	6.1	34.2	72.3	189.1	308.0	2.1	2.9	3.8	5.8	6.1	7.8	11.3	10.1	5.0	8.5
Hydro	71.7	141.6	186.4	275.9	408.4	24.5	11.9	9.9	8.5	8.0	3.0	4.0	4.0	4.0	4.0
Geothermal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	0.0	60.2	127.5	306.6	578.0	0.0	5.0	6.8	9.4	11.4	38.8	11.3	9.2	6.5	8.7

Power generation Input

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**57.4**	**244.7**	**366.8**	**575.7**	**829.8**	**100**	**100**	**100**	**100**	**100**	**6.5**	**6.0**	**4.6**	**3.7**	**4.6**
Coal	48.9	222.9	336.6	529.1	759.8	85.2	91.1	91.8	91.9	91.6	6.8	6.1	4.6	3.7	4.6
Oil	5.0	8.0	8.9	9.2	8.6	8.7	3.3	2.4	1.6	1.0	2.1	1.4	0.4	-0.7	0.3
Natural gas	3.5	13.8	21.4	37.4	61.4	6.0	5.6	5.8	6.5	7.4	6.2	6.5	5.7	5.1	5.7

Thermal Efficiency

	%						AAGR(%)				
	1990	2013	2020	2030	2040		1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**32**	**34**	**35**	**37**	**39**		**0.2**	**0.6**	**0.6**	**0.6**	**0.6**
Coal	34	34	35	36	38		0.0	0.5	0.5	0.5	0.5
Oil	23	25	25	25	25		0.4	0.0	0.0	0.0	0.0
Natural gas	25	41	44	49	53		2.2	1.1	1.0	0.9	1.0

CO_2 emissions

	Mt-C										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**148.9**	**516.7**	**763.9**	**1,194.4**	**1,726.6**	**100**	**100**	**100**	**100**	**100**	**5.6**	**5.7**	**4.6**	**3.8**	**4.6**
Coal	101.1	368.7	542.4	843.3	1,219.3	67.9	71.4	71.0	70.6	70.6	5.8	5.7	4.5	3.8	4.5
Oil	44.2	128.3	189.6	293.8	413.3	29.7	24.8	24.8	24.6	23.9	4.7	5.7	4.5	3.5	4.4
Natural Gas	3.6	19.6	32.0	57.3	94.1	2.4	3.8	4.2	4.8	5.4	7.7	7.2	6.0	5.1	6.0

Energy and economic indicators

						AAGR(%)				
	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
GDP (billions of 2005 US dollars)	350	1,490	2,477	4,721	8,254	6.5	7.5	6.7	5.7	6.5
Population (millions of people)	869	1,252	1,359	1,495	1,599	1.6	1.2	1.0	0.7	0.9
GDP per capita (thousands of 2005 USD/person)	0.40	1.19	1.8	3.2	5.2	4.8	6.3	5.6	5.0	5.6
Primary energy consumption per capita (toe/person)	0.35	0.62	0.80	1.08	1.43	2.5	3.6	3.1	2.8	3.1
Primary energy consumption per unit of GDP (toe/million 2005 US Dollars)	875	521	436	343	276	-2.2	-2.5	-2.4	-2.1	-2.3
Final energy consumption per unit of GDP (toe/million 2005 US Dollars)	695	355	292	226	183	-2.9	-2.7	-2.5	-2.1	-2.4
CO_2 emissions per unit of GDP (t-C/million 2005 US Dollars)	425	347	308	253	209	-0.9	-1.7	-2.0	-1.9	-1.9
CO_2 emissions per unit of primary energy consumption (t-C/toe)	0.49	0.67	0.71	0.74	0.76	1.4	0.8	0.4	0.2	0.5
Automobile ownership volume (millions of vehicles)	4.3	32.5	64.6	142.7	245.1	9.2	10.3	8.3	5.6	7.8
Automobile ownership volume per capita (vehicles per person)	0.00	0.03	0.05	0.10	0.15	7.4	9.0	7.2	4.8	6.8

India [APS]

Primary energy consumption

	MTOE											AAGR(%)				
	1990	2000	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**306.6**	**441.3**	**775.4**	**1,030.4**	**1,441.1**	**1,929.8**	**100**	**100**	**100**	**100**	**100**	**4.1**	**4.1**	**3.4**	**3.0**	**3.4**
Coal	93.6	146.4	341.4	451.8	591.5	777.6	30.5	44.0	43.9	41.0	40.3	5.8	4.1	2.7	2.8	3.1
Oil	61.1	112.0	175.9	252.4	375.7	507.4	19.9	22.7	24.5	26.1	26.3	4.7	5.3	4.1	3.1	4.0
Natural gas	10.6	23.1	44.5	64.1	102.9	156.2	3.4	5.7	6.2	7.1	8.1	6.4	5.4	4.8	4.3	4.8
Nuclear	1.6	4.4	8.9	21.2	74.5	126.7	0.5	1.2	2.1	5.2	6.6	7.8	13.1	13.4	5.5	10.3
Hydro	6.2	6.4	12.2	16.6	25.7	38.8	2.0	1.6	1.6	1.8	2.0	3.0	4.5	4.5	4.2	4.4
Geothermal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	133.6	149.1	192.6	224.3	270.8	322.9	43.6	24.8	21.8	18.8	16.7	1.6	2.2	1.9	1.8	1.9
Biomass	133.5	148.8	188.3	211.0	229.7	252.0	43.5	24.3	20.5	15.9	13.1	1.5	1.6	0.9	0.9	1.1
Solar, Wind, Ocean	0.0	0.2	3.6	12.3	38.8	66.0	0.0	0.5	1.2	2.7	3.4	29.0	19.0	12.2	5.4	11.3
Biofuels	0.0	0.1	0.2	0.5	1.8	4.4	0.0	0.0	0.1	0.1	0.2	-	19.4	13.0	9.5	13.3
Electricit	0.1	0.1	0.5	0.5	0.5	0.5	0.0	0.1	0.0	0.0	0.0	6.3	0.0	0.0	0.0	0.0

Final energy demand

	MTOE											AAGR(%)				
	1990	2000	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**243.5**	**315.4**	**528.3**	**701.3**	**989.6**	**1,341.0**	**100**	**100**	**100**	**100**	**100**	**3.4**	**4.1**	**3.5**	**3.1**	**3.5**
Industry	66.9	83.5	179.1	241.8	362.2	515.0	27.5	33.9	34.5	36.6	38.4	4.4	4.4	4.1	3.6	4.0
Transportation	20.8	31.9	74.8	122.7	208.7	296.0	8.6	14.2	17.5	21.1	22.1	5.7	7.3	5.4	3.6	5.2
Others	142.5	173.2	238.0	288.0	348.3	434.0	58.5	45.1	41.1	35.2	32.4	2.3	2.8	1.9	2.2	2.2
Non-energy	13.3	26.8	36.4	48.8	70.3	96.0	5.5	6.9	7.0	7.1	7.2	4.5	4.3	3.7	3.2	3.7
Total	**243.5**	**315.4**	**528.3**	**701.3**	**989.6**	**1,341.0**	**100**	**100**	**100**	**100**	**100**	**3.4**	**4.1**	**3.5**	**3.1**	**3.5**
Coal	38.9	34.6	103.5	139.7	200.2	276.0	16.0	19.6	19.9	20.2	20.6	4.3	4.4	3.7	3.3	3.7
Oil	50.2	94.4	150.0	225.0	345.7	475.4	20.6	28.4	32.1	34.9	35.5	4.9	6.0	4.4	3.2	4.4
Natural gas	5.6	9.7	26.6	38.2	60.5	91.0	2.3	5.0	5.4	6.1	6.8	7.0	5.3	4.7	4.2	4.7
Electricity	18.5	32.4	76.5	115.5	193.4	294.1	7.6	14.5	16.5	19.5	21.9	6.4	6.1	5.3	4.3	5.1
Heat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	130.3	144.4	171.7	183.0	189.7	204.5	53.5	32.5	26.1	19.2	15.2	1.2	0.9	0.4	0.8	0.6

Power generation Output

	TWh											AAGR(%)				
	1990	2000	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**292.7**	**569.7**	**1,193.5**	**1,772.9**	**2,878.7**	**4,240.3**	**100**	**100**	**100**	**100**	**100**	**6.3**	**5.8**	**5.0**	**3.9**	**4.8**
Coal	191.6	390.2	869.2	1,191.2	1,570.3	2,117.3	65.5	72.8	67.2	54.5	49.9	6.8	4.6	2.8	3.0	3.4
Oil	13.3	29.2	23.2	23.9	23.3	20.6	4.5	1.9	1.3	0.8	0.5	2.4	0.4	-0.3	-1.2	-0.4
Natural gas	10.0	56.0	65.1	102.2	185.9	316.3	3.4	5.5	5.8	6.5	7.5	8.5	6.7	6.2	5.5	6.0
Nuclear	6.1	16.9	34.2	81.2	285.8	486.4	2.1	2.9	4.6	9.9	11.5	7.8	13.1	13.4	5.5	10.3
Hydro	71.7	74.5	141.6	192.7	299.3	451.7	24.5	11.9	10.9	10.4	10.7	3.0	4.5	4.5	4.2	4.4
Geothermal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	0.0	3.0	60.2	181.6	514.1	848.1	0.0	5.0	10.2	17.9	20.0	38.8	17.1	11.0	5.1	10.3

Power generation Input

	MTOE											AAGR(%)				
	1990	2000	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**57.4**	**121.7**	**244.7**	**321.1**	**405.5**	**523.8**	**100**	**100**	**100**	**100**	**100**	**6.5**	**4.0**	**2.4**	**2.6**	**2.9**
Coal	48.9	103.5	222.9	293.2	365.6	467.6	85.2	91.1	91.3	90.2	89.3	6.8	4.0	2.2	2.5	2.8
Oil	5.0	9.0	8.0	8.1	7.6	6.4	8.7	3.3	2.5	1.9	1.2	2.1	0.0	-0.7	-1.6	-0.8
Natural gas	3.5	9.3	13.8	19.9	32.3	49.8	6.0	5.6	6.2	8.0	9.5	6.2	5.4	5.0	4.4	4.9

Thermal Efficiency

	%							AAGR(%)				
	1990	2000	2013	2020	2030	2040		1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**32**	**34**	**34**	**35**	**38**	**40**		**0.2**	**0.7**	**0.7**	**0.7**	**0.7**
Coal	34	32	34	35	37	39		0.0	0.6	0.6	0.5	0.6
Oil	23	28	25	25	26	27		0.4	0.4	0.4	0.4	0.4
Natural gas	25	52	41	44	49	55		2.2	1.2	1.1	1.0	1.1

CO_2 emissions

	Mt-C											AAGR(%)				
	1990	2000	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**148.9**	**245.7**	**516.7**	**702.7**	**964.1**	**1,288.9**	**100**	**100**	**100**	**100**	**100**	**5.6**	**4.5**	**3.2**	**2.9**	**3.4**
Coal	101.1	158.1	368.7	488.0	638.8	839.8	67.9	71.4	69.4	66.3	65.2	5.8	4.1	2.7	2.8	3.1
Oil	44.2	77.7	128.3	183.9	271.9	363.8	29.7	24.8	26.2	28.2	28.2	4.7	5.3	4.0	3.0	3.9
Natural Gas	3.6	9.9	19.6	30.8	53.4	85.3	2.4	3.8	4.4	5.5	6.6	7.7	6.7	5.7	4.8	5.6

Energy and economic indicators

						AAGR(%)				
	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
GDP (billions of 2005 US dollars)	350	1,490	2,477	4,721	8,254	6.5	7.5	6.7	5.7	6.5
Population (millions of people)	869	1,252	1,359	1,495	1,599	1.6	1.2	1.0	0.7	0.9
GDP per capita (thousands of 2005 USD/person)	0.40	1.19	1.8	3.2	5.2	4.8	6.3	5.6	5.0	5.6
Primary energy consumption per capita (toe/person)	0.35	0.62	0.76	0.96	1.21	2.5	2.9	2.4	2.3	2.5
Primary energy consumption per unit of GDP (toe/million 2005 US Dollars)	875	521	416	305	234	-2.2	-3.2	-3.0	-2.6	-2.9
Final energy consumption per unit of GDP (toe/million 2005 US Dollars)	695	355	283	210	162	-2.9	-3.2	-3.0	-2.5	-2.8
CO_2 emissions per unit of GDP (t-C/million 2005 US Dollars)	425	347	284	204	156	-0.9	-2.8	-3.2	-2.6	-2.9
CO_2 emissions per unit of primary energy consumption (t-C/toe)	0.49	0.67	0.68	0.67	0.67	1.4	0.3	-0.2	0.0	0.0
Automobile ownership volume (millions of vehicles)	4.3	32.5	64.6	142.7	245.1	9.2	10.3	8.3	5.6	7.8
Automobile ownership volume per capita (vehicles per person)	0.00	0.03	0.05	0.10	0.15	7.4	9.0	7.2	4.8	6.8

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Primary energy consumption

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**98.6**	**223.9**	**365.1**	**527.3**	**728.6**	**100**	**100**	**100**	**100**	**100**	**3.6**	**7.2**	**3.7**	**3.3**	**4.5**
Coal	3.5	35.8	74.9	117.5	177.6	3.6	16.0	20.5	22.3	24.4	10.6	11.1	4.6	4.2	6.1
Oil	33.3	76.8	134.8	185.5	231.6	33.8	34.3	36.9	35.2	31.8	3.7	8.4	3.2	2.2	4.2
Natural gas	15.8	39.3	66.4	103.7	162.6	16.0	17.5	18.2	19.7	22.3	4.0	7.8	4.6	4.6	5.4
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hydro	0.5	1.5	3.1	5.7	7.5	0.5	0.7	0.9	1.1	1.0	4.8	11.5	6.1	2.9	6.3
Geothermal	1.9	16.2	24.8	45.8	65.8	2.0	7.2	6.8	8.7	9.0	9.7	6.3	6.4	3.7	5.3
Others	43.5	54.4	61.1	69.1	83.5	44.1	24.3	16.7	13.1	11.5	1.0	1.7	1.2	1.9	1.6
Biomass	43.5	53.8	58.0	63.0	72.6	44.1	24.0	15.9	12.0	10.0	0.9	1.1	0.8	1.4	1.1
Solar, Wind, Ocean		0.0	0.2	0.6	1.0	0.0	0.0	0.1	0.1	0.1	-	132.6	11.4	5.4	32.1
Biofuels		0.5	2.9	5.4	9.8	0.0	0.2	0.8	1.0	1.4	-	27.8	6.4	6.1	11.5
Electricity		0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-100.0	-	-	-100.0

Final energy demand

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**79.8**	**159.5**	**261.2**	**356.9**	**479.8**	**100**	**100**	**100**	**100**	**100**	**3.1**	**7.3**	**3.2**	**3.0**	**4.2**
Industry	18.1	36.8	62.7	106.1	173.4	22.7	23.1	24.0	29.7	36.1	3.1	7.9	5.4	5.0	5.9
Transportation	10.7	43.8	97.8	128.0	153.9	13.4	27.5	37.4	35.9	32.1	6.3	12.2	2.7	1.9	4.8
Others	43.7	67.9	85.6	104.7	129.8	54.7	42.6	32.8	29.3	27.1	1.9	3.4	2.0	2.2	2.4
Non-energy	7.4	11.0	15.1	18.1	22.6	9.2	6.9	5.8	5.1	4.7	1.8	4.6	1.8	2.2	2.7
Total	**79.8**	**159.5**	**261.2**	**356.9**	**479.8**	**100**	**100**	**100**	**100**	**100**	**3.1**	**7.3**	**3.2**	**3.0**	**4.2**
Coal	2.1	4.6	12.4	23.7	41.4	2.7	2.9	4.8	6.6	8.6	3.4	15.2	6.7	5.7	8.5
Oil	27.2	61.4	116.6	154.2	192.2	34.1	38.5	44.6	43.2	40.1	3.6	9.6	2.8	2.2	4.3
Natural gas	6.0	23.6	42.7	66.1	99.9	7.5	14.8	16.3	18.5	20.8	6.1	8.8	4.5	4.2	5.5
Electricity	2.4	16.1	30.9	52.5	82.5	3.0	10.1	11.8	14.7	17.2	8.6	9.8	5.4	4.6	6.2
Heat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	42.0	53.8	58.6	60.4	63.8	52.6	33.7	22.4	16.9	13.3	1.1	1.2	0.3	0.5	0.6

Power generation Output

	TWh										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**32.7**	**215.6**	**411.7**	**686.2**	**1,061.0**	**100**	**100**	**100**	**100**	**100**	**8.6**	**9.7**	**5.2**	**4.5**	**6.1**
Coal	9.8	110.5	231.6	365.2	542.2	29.9	51.2	56.3	53.2	51.1	11.1	11.2	4.7	4.0	6.1
Oil	15.3	26.8	16.3	12.8	8.8	46.9	12.4	4.0	1.9	0.8	2.4	-6.8	-2.4	-3.7	-4.0
Natural gas	0.7	51.8	91.0	160.4	281.4	2.2	24.0	22.1	23.4	26.5	20.3	8.4	5.8	5.8	6.5
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hydro	5.7	16.9	36.2	65.7	87.6	17.5	7.9	8.8	9.6	8.3	4.8	11.5	6.1	2.9	6.3
Geothermal	1.1	9.4	28.8	53.3	76.5	3.4	4.4	7.0	7.8	7.2	9.7	17.3	6.4	3.7	8.1
Others	0.0	0.3	7.8	28.8	64.5	0.0	0.1	1.9	4.2	6.1	-	61.3	14.0	8.4	22.4

Power generation Input

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**6.5**	**50.4**	**87.4**	**132.3**	**199.2**	**100**	**100**	**100**	**100**	**100**	**9.3**	**8.2**	**4.2**	**4.2**	**5.2**
Coal	2.3	31.2	62.5	93.8	136.2	35.7	61.8	71.5	70.9	68.4	11.9	10.5	4.1	3.8	5.6
Oil	4.0	7.5	4.6	3.6	2.5	61.0	14.9	5.3	2.7	1.2	2.8	-6.8	-2.4	-3.7	-4.0
Natural gas	0.2	11.7	20.3	34.9	60.5	3.2	23.3	23.2	26.4	30.4	19.1	8.2	5.6	5.7	6.3

Thermal Efficiency

	%										AAGR(%)				
	1990	2013	2020	2030	2040						1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**34**	**32**	**33**	**35**	**36**						**-0.3**	**0.5**	**0.5**	**0.3**	**0.4**
Coal	36	30	32	33	34						-0.7	0.6	0.5	0.2	0.4
Oil	33	31	31	31	31						-0.4	0.0	0.0	0.0	0.0
Natural gas	30	38	39	40	40						1.0	0.2	0.3	0.1	0.2

CO_2 emissions

	Mt-C										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**40.9**	**112.6**	**211.4**	**309.4**	**439.1**	**100**	**100**	**100**	**100**	**100**	**4.5**	**9.4**	**3.9**	**3.6**	**5.2**
Coal	8.4	37.8	79.3	124.4	188.0	20.5	33.6	37.5	40.2	42.8	6.8	11.1	4.6	4.2	6.1
Oil	27.2	50.6	91.6	120.7	150.1	66.6	44.9	43.3	39.0	34.2	2.7	8.9	2.8	2.2	4.1
Natural Gas	5.3	24.2	40.5	64.3	101.1	12.9	21.5	19.2	20.8	23.0	6.8	7.6	4.7	4.6	5.4

Energy and economic indicators

						AAGR(%)				
	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
GDP (billions of 2005 US dollars)	150	449	658	1,140	1,858	4.9	5.6	5.6	5.0	5.4
Population (millions of people)	179	247	268	292	310	1.4	1.2	0.9	0.6	0.9
GDP per capita (thousands of 2005 USD/person)	0.84	1.82	2.5	3.9	6.0	3.4	4.4	4.7	4.4	4.5
Primary energy consumption per capita (toe/person)	0.55	0.91	1.36	1.81	2.35	2.2	6.0	2.9	2.6	3.6
Primary energy consumption per unit of GDP (toe/million 2005 US Dollars)	657	499	555	462	392	-1.2	1.5	-1.8	-1.6	-0.9
Final energy consumption per unit of GDP (toe/million 2005 US Dollars)	532	355	397	313	258	-1.7	1.6	-2.3	-1.9	-1.2
CO2 emissions per unit of GDP (t-C/million 2005 US Dollars)	272	251	321	271	236	-0.4	3.6	-1.7	-1.4	-0.2
CO2 emissions per unit of primary energy consumption (t-C/toe)	0.41	0.50	0.58	0.59	0.60	0.8	2.0	0.1	0.3	0.7
Automobile ownership volume (millions of vehicles)						-	-	-	-	-
Automobile ownership volume per capita (vehicles per person)	-	-	-	-	-	-	-	-	-	-

INDONESIA [APS]

Primary energy consumption

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**98.6**	**223.9**	**311.2**	**429.6**	**587.1**	**100**	**100**	**100**	**100**	**100**	**3.6**	**4.8**	**3.3**	**3.2**	**3.6**
Coal	3.5	35.8	50.2	66.8	105.9	3.6	16.0	16.1	15.6	18.0	10.6	5.0	2.9	4.7	4.1
Oil	33.3	76.8	114.3	146.1	185.4	33.8	34.3	36.7	34.0	31.6	3.7	5.8	2.5	2.4	3.3
Natural gas	15.8	39.3	59.5	83.4	124.1	16.0	17.5	19.1	19.4	21.1	4.0	6.1	3.4	4.1	4.4
Nuclear	-	-	-	1.3	3.2	-	-	-	0.3	0.5	-	-	-	9.4	-
Hydro	0.5	1.5	3.1	6.8	9.4	0.5	0.7	1.0	1.6	1.6	4.8	11.5	8.1	3.3	7.2
Geothermal	1.9	16.2	24.8	61.7	81.4	2.0	7.2	8.0	14.4	13.9	9.7	6.3	9.6	2.8	6.2
Others	43.5	54.4	59.3	63.4	77.7	44.1	24.3	19.0	14.8	13.2	1.0	1.2	0.7	2.1	1.3
Biomass	43.5	53.8	56.7	58.5	68.6	44.1	24.0	18.2	13.6	11.7	0.9	0.8	0.3	1.6	0.9
Solar, Wind, Ocean	-	0.0	0.2	1.1	2.2	-	0.0	0.1	0.3	0.4	-	132.6	18.7	7.0	36.0
Biofuels	-	0.5	2.3	3.8	6.9	-	0.2	0.8	0.9	1.2	-	23.8	5.0	6.1	10.0
Electricity	-	0.1	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-100.0	-	-	-100.0

Final energy demand

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**79.8**	**159.5**	**229.8**	**292.9**	**393.3**	**100**	**100**	**100**	**100**	**100**	**3.1**	**5.4**	**2.5**	**3.0**	**3.4**
Industry	18.1	36.8	54.3	87.0	142.1	22.7	23.1	23.6	29.7	36.1	3.1	5.7	4.8	5.0	5.1
Transportation	10.7	43.8	79.3	92.4	112.3	13.4	27.5	34.5	31.6	28.5	6.3	8.8	1.5	2.0	3.5
Others	43.7	67.9	81.1	95.3	116.4	54.7	42.6	35.3	32.6	29.6	1.9	2.6	1.6	2.0	2.0
Non-energy	7.4	11.0	15.1	18.1	22.6	9.2	6.9	6.6	6.2	5.7	1.8	4.6	1.8	2.2	2.7
Total	**79.8**	**159.5**	**229.8**	**292.9**	**393.3**	**100**	**100**	**100**	**100**	**100**	**3.1**	**5.4**	**2.5**	**3.0**	**3.4**
Coal	2.1	4.6	10.6	19.1	33.3	2.7	2.9	4.6	6.5	8.5	3.4	12.7	6.1	5.7	7.6
Oil	27.2	61.4	97.0	116.5	147.2	34.1	38.5	42.2	39.8	37.4	3.6	6.7	1.9	2.4	3.3
Natural gas	6.0	23.6	38.4	56.9	85.7	7.5	14.8	16.7	19.4	21.8	6.1	7.2	4.0	4.2	4.9
Electricity	2.4	16.1	26.8	42.7	67.2	3.0	10.1	11.7	14.6	17.1	8.6	7.6	4.8	4.6	5.4
Heat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	42.0	53.8	57.1	57.7	59.9	52.6	33.7	24.8	19.7	15.2	1.1	0.9	0.1	0.4	0.4

Power generation Output

	TWh										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**32.7**	**215.6**	**354.5**	**552.0**	**855.0**	**100**	**100**	**100**	**100**	**100**	**8.6**	**7.4**	**4.5**	**4.5**	**5.2**
Coal	9.8	110.5	174.8	229.9	357.6	29.9	51.2	49.3	41.6	41.8	11.1	6.8	2.8	4.5	4.4
Oil	15.3	26.8	13.4	7.0	4.4	46.9	12.4	3.8	1.3	0.5	2.4	-9.5	-6.2	-4.6	-6.5
Natural gas	0.7	51.8	94.5	134.5	207.0	2.2	24.0	26.7	24.4	24.2	20.3	9.0	3.6	4.4	5.3
Nuclear	-	-	-	5.0	12.3	-	-	-	0.9	1.4	-	-	-	9.4	-
Hydro	5.7	16.9	36.2	78.8	109.5	17.5	7.9	10.2	14.3	12.8	4.8	11.5	8.1	3.3	7.2
Geothermal	1.1	9.4	28.8	71.8	94.6	3.4	4.4	8.1	13.0	11.1	9.7	17.3	9.6	2.8	8.9
Others	0.0	0.3	6.8	25.0	69.5	0.0	0.1	1.9	4.5	8.1	-	58.2	13.9	10.8	22.8

Power generation Input

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**6.5**	**50.4**	**61.0**	**73.6**	**110.0**	**100**	**100**	**100**	**100**	**100**	**9.3**	**2.8**	**1.9**	**4.1**	**2.9**
Coal	2.3	31.2	39.6	47.7	72.6	35.7	61.8	64.9	64.9	65.9	11.9	3.5	1.9	4.3	3.2
Oil	4.0	7.5	3.8	2.0	1.2	61.0	14.9	6.2	2.7	1.1	2.8	-9.5	-6.2	-4.6	-6.5
Natural gas	0.2	11.7	17.7	23.9	36.2	3.2	23.3	29.0	32.4	32.9	19.1	6.0	3.0	4.3	4.3

Thermal Efficiency

	%										AAGR(%)				
	1990	2013	2020	2030	2040						1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**34**	**32**	**40**	**43**	**44**						**-0.3**	**3.1**	**0.9**	**0.2**	**1.2**
Coal	36	30	38	41	42						-0.7	3.2	0.9	0.2	1.2
Oil	33	31	31	31	31						-0.4	0.0	0.0	0.0	0.0
Natural gas	30	38	46	48	49						1.0	2.8	0.5	0.1	1.0

CO_2 emissions

	Mt-C										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**40.9**	**112.6**	**164.1**	**210.6**	**300.7**	**100**	**100**	**100**	**100**	**100**	**4.5**	**5.5**	**2.5**	**3.6**	**3.7**
Coal	8.4	37.8	53.1	70.7	112.1	20.5	33.6	32.4	33.6	37.3	6.8	5.0	2.9	4.7	4.1
Oil	27.2	50.6	75.2	89.0	112.7	66.6	44.9	45.8	42.3	37.5	2.7	5.8	1.7	2.4	3.0
Natural Gas	5.3	24.2	35.8	50.9	75.9	12.9	21.5	21.8	24.2	25.3	6.8	5.8	3.6	4.1	4.3

Energy and economic indicators

						AAGR(%)				
	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
GDP (billions of 2005 US dollars)	150.1	449.1	658.3	1140.5	1857.7	4.9	5.6	5.6	5.0	5.4
Population (millions of people)	178.6	246.9	267.6	291.7	310.3	1.4	1.2	0.9	0.6	0.9
GDP per capita (thousands of 2005 USD/person)	0.84	1.82	2.5	3.9	6.0	3.4	4.4	4.7	4.4	4.5
Primary energy consumption per capita (toe/person)	0.55	0.91	1.16	1.47	1.89	2.2	3.6	2.4	2.5	2.8
Primary energy consumption per unit of GDP (toe/million 2005 US Dollars)	657	499	473	377	316	-1.2	-0.8	-2.2	-1.7	-1.7
Final energy consumption per unit of GDP (toe/million 2005 US Dollars)	532	355	349	257	212	-1.7	-0.2	-3.0	-1.9	-1.9
CO_2 emissions per unit of GDP (t-C/million 2005 US Dollars)	272	251	249	185	162	-0.4	-0.1	-3.0	-1.3	-1.6
CO_2 emissions per unit of primary energy consumption (t-C/toe)	0.41	0.50	0.53	0.49	0.51	0.8	0.7	-0.7	0.4	0.1
Automobile ownership volume (millions of vehicles)						-	-	-	-	-
Automobile ownership volume per capita (vehicles per person)	-	-	-	-	-	-	-	-	-	-

Japan [BAU]

Primary energy consumption

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**439.3**	**454.7**	**471.2**	**461.0**	**436.1**	**100**	**100**	**100**	**100**	**100**	**0.1**	**0.5**	**-0.2**	**-0.6**	**-0.2**
Coal	76.6	121.3	117.9	120.7	115.6	17.4	26.7	25.0	26.2	26.5	2.0	-0.4	0.2	-0.4	-0.2
Oil	250.4	202.4	174.6	154.8	135.1	57.0	44.5	37.1	33.6	31.0	-0.9	-2.1	-1.2	-1.3	-1.5
Natural gas	44.2	106.3	96.6	110.4	111.6	10.1	23.4	20.5	23.9	25.6	3.9	-1.4	1.3	0.1	0.2
Nuclear	52.7	2.4	54.4	40.8	34.5	12.0	0.5	11.6	8.8	7.9	-12.5	56.0	-2.8	-1.7	10.3
Hydro	7.7	6.7	8.1	8.1	8.1	1.7	1.5	1.7	1.8	1.9	-0.6	2.7	0.0	0.0	0.7
Geothermal	1.6	2.4	3.8	7.7	9.0	0.4	0.5	0.8	1.7	2.1	1.9	6.9	7.1	1.6	5.0
Others	6.1	13.1	15.7	18.7	22.2	1.4	2.9	3.3	4.0	5.1	3.4	2.6	1.7	1.8	2.0
Biomass	4.9	11.1	12.1	12.8	13.8	1.1	2.5	2.6	2.8	3.2	3.6	1.2	0.6	0.7	0.8
Solar, Wind, Ocean	1.2	2.0	3.1	4.7	6.6	0.3	0.4	0.7	1.0	1.5	2.3	6.5	4.2	3.4	4.5
Biofuels	-	0.0	0.5	1.1	1.8	0.0	0.0	0.1	0.2	0.4	-	2,343.4	8.0	5.0	140.0
Electricit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Final energy demand

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**297.8**	**311.4**	**312.5**	**304.9**	**289.4**	**100**	**100**	**100**	**100**	**100**	**0.2**	**0.1**	**-0.2**	**-0.5**	**-0.3**
Industry	100.7	82.0	88.8	88.6	87.3	33.8	26.3	28.4	29.1	30.2	-0.9	1.1	0.0	-0.1	0.2
Transportation	71.8	73.4	69.6	62.2	55.5	24.1	23.6	22.3	20.4	19.2	0.1	-0.8	-1.1	-1.1	-1.0
Others	90.9	117.8	118.3	119.1	113.7	30.5	37.8	37.9	39.1	39.3	1.1	0.1	0.1	-0.5	-0.1
Non-energy	34.4	38.1	35.7	35.0	32.9	11.6	12.2	11.4	11.5	11.4	0.4	-0.9	-0.2	-0.6	-0.5
Total	**297.8**	**311.4**	**312.5**	**304.9**	**289.4**	**100**	**100**	**100**	**100**	**100**	**0.2**	**0.1**	**-0.2**	**-0.5**	**-0.3**
Coal	31.7	25.9	26.5	25.2	22.8	10.6	8.3	8.5	8.3	7.9	-0.9	0.3	-0.5	-1.0	-0.5
Oil	182.3	165.7	154.7	136.9	118.0	61.2	53.2	49.5	44.9	40.8	-0.4	-1.0	-1.2	-1.5	-1.2
Natural gas	15.2	33.9	36.7	38.7	39.3	5.1	10.9	11.8	12.7	13.6	3.5	1.1	0.5	0.1	0.5
Electricity	64.5	81.7	88.2	94.9	97.4	21.6	26.2	28.2	31.1	33.7	1.0	1.1	0.7	0.3	0.7
Heat	0.2	0.5	2.6	4.7	6.5	0.1	0.2	0.8	1.5	2.3	4.5	25.1	6.0	3.4	9.6
Others	3.9	3.6	3.7	4.4	5.3	1.3	1.1	1.2	1.4	1.8	-0.4	0.6	1.7	1.9	1.5

Power generation Output

	TWh										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**835.5**	**1,038.5**	**1,115.6**	**1,188.4**	**1,200.3**	**100**	**100**	**100**	**100**	**100**	**0.9**	**1.0**	**0.6**	**0.1**	**0.5**
Coal	116.3	336.7	318.0	337.3	324.7	13.9	32.4	28.5	28.4	27.1	4.7	-0.8	0.6	-0.4	-0.1
Oil	236.6	149.9	66.7	57.0	53.0	28.3	14.4	6.0	4.8	4.4	-2.0	-10.9	-1.6	-0.7	-3.8
Natural gas	178.5	401.7	343.1	429.6	451.9	21.4	38.7	30.8	36.2	37.7	3.6	-2.2	2.3	0.5	0.4
Nuclear	202.3	9.3	208.9	156.5	132.2	24.2	0.9	18.7	13.2	11.0	-12.5	56.0	-2.8	-1.7	10.3
Hydro	89.3	78.1	94.1	94.3	94.4	10.7	7.5	8.4	7.9	7.9	-0.6	2.7	0.0	0.0	0.7
Geothermal	1.7	2.6	4.3	8.7	10.3	0.2	0.2	0.4	0.7	0.9	1.8	7.4	7.4	1.7	5.2
Others	10.7	60.2	80.6	105.1	133.7	1.3	5.8	7.2	8.8	11.1	7.8	4.3	2.7	2.4	3.0

Power generation Input

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**109.3**	**172.3**	**139.0**	**152.8**	**149.9**	**100**	**100**	**100**	**100**	**100**	**2.0**	**-3.0**	**0.9**	**-0.2**	**-0.5**
Coal	25.4	69.7	65.9	69.8	67.2	23.2	40.5	47.4	45.7	44.9	4.5	-0.8	0.6	-0.4	-0.1
Oil	50.6	30.4	13.5	11.5	10.7	46.3	17.6	9.7	7.5	7.1	-2.2	-10.9	-1.6	-0.7	-3.8
Natural gas	33.3	72.1	59.6	71.4	72.0	30.5	41.9	42.9	46.7	48.0	3.4	-2.7	1.8	0.1	0.0

Thermal Efficiency

	%					AAGR(%)				
	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**42**	**44**	**45**	**46**	**48**	**0.3**	**0.2**	**0.3**	**0.3**	**0.3**
Coal	39	42	42	42	42	0.2	0.0	0.0	0.0	0.0
Oil	40	42	42	43	43	0.2	0.0	0.0	0.0	0.0
Natural gas	46	48	49	52	54	0.2	0.5	0.4	0.4	0.4

CO_2 emissions

	Mt-C										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**291.8**	**336.6**	**305.5**	**301.3**	**282.0**	**100**	**100**	**100**	**100**	**100**	**0.6**	**-1.4**	**-0.1**	**-0.7**	**-0.7**
Coal	82.3	130.6	127.0	130.0	124.5	28.2	38.8	41.6	43.1	44.1	2.0	-0.4	0.2	-0.4	-0.2
Oil	181.4	138.1	116.8	100.8	86.2	62.2	41.0	38.2	33.5	30.6	-1.2	-2.4	-1.5	-1.6	-1.7
Natural Gas	28.1	67.9	61.7	70.5	71.3	9.6	20.2	20.2	23.4	25.3	3.9	-1.4	1.4	0.1	0.2

Energy and economic indicators

						AAGR(%)				
	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
GDP (billions of 2005 US dollars)	3,801	4,686	5,423	6,267	6,932	0.9	2.1	1.5	1.0	1.5
Population (millions of people)	124	127	125	120	114	0.1	-0.2	-0.4	-0.5	-0.4
GDP per capita (thousands of 2005 USD/person)	30.8	36.8	43.3	52.0	60.8	0.8	2.3	1.9	1.6	1.9
Primary energy consumption per capita (toe/person)	3.6	3.6	3.8	3.8	3.8	0.0	0.7	0.2	0.0	0.3
Primary energy consumption per unit of GDP (toe/million 2005 US Dollars)	116	97	87	74	63	-0.8	-1.6	-1.7	-1.6	-1.6
Final energy consumption per unit of GDP (toe/million 2005 US Dollars)	78	66	58	49	42	-0.7	-2.0	-1.7	-1.5	-1.7
CO_2 emissions per unit of GDP (t-C/million 2005 US Dollars)	77	72	56	48	41	-0.3	-3.4	-1.6	-1.7	-2.1
CO_2 emissions per unit of primary energy consumption (t-C/toe)	0.7	0.7	0.6	0.7	0.6	0.5	-1.9	0.1	-0.1	-0.5
Automobile ownership volume (millions of vehicles)	57.7	76.5	76.6	73.9	71.1	1.2	0.0	-0.4	-0.4	-0.3
Automobile ownership volume per capita (vehicles per person)	0.5	0.6	0.6	0.6	0.6	1.1	0.2	0.0	0.2	0.1

Japan [APS]

Primary energy consumption

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**439.3**	**454.7**	**460.9**	**425.7**	**386.3**	**100**	**100**	**100**	**100**	**100**	**0.1**	**0.2**	**-0.8**	**-1.0**	**-0.6**
Coal	76.6	121.3	109.3	104.7	94.7	17.4	26.7	23.7	24.6	24.5	2.0	-1.5	-0.4	-1.0	-0.9
Oil	250.4	202.4	166.7	138.3	112.0	57.0	44.5	36.2	32.5	29.0	-0.9	-2.7	-1.9	-2.1	-2.2
Natural gas	44.2	106.3	82.1	80.1	71.9	10.1	23.4	17.8	18.8	18.6	3.9	-3.6	-0.3	-1.1	-1.4
Nuclear	52.7	2.4	72.6	60.7	56.3	12.0	0.5	15.8	14.3	14.6	-12.5	62.5	-1.8	-0.7	12.4
Hydro	7.7	6.7	7.8	8.4	8.4	1.7	1.5	1.7	2.0	2.2	-0.6	2.2	0.8	0.0	0.9
Geothermal	1.6	2.4	3.9	10.3	15.4	0.4	0.5	0.8	2.4	4.0	1.9	7.0	10.3	4.2	7.1
Others	6.1	13.1	18.4	23.2	27.4	1.4	2.9	4.0	5.4	7.1	3.4	4.9	2.3	1.7	2.8
Biomass	4.9	11.0	13.7	15.3	16.5	1.1	2.4	3.0	3.6	4.3	3.6	3.2	1.1	0.7	1.5
Solar, Wind, Ocean	1.2	2.0	3.9	6.6	9.0	0.3	0.4	0.8	1.6	2.3	2.3	10.0	5.5	3.2	5.8
Biofuels	-	0.1	0.8	1.2	1.9	0.0	0.0	0.2	0.3	0.5	-	33.6	4.7	4.7	11.5
Electricit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Final energy demand

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**297.8**	**311.4**	**302.1**	**277.7**	**250.4**	**100**	**100**	**100**	**100**	**100**	**0.2**	**-0.4**	**-0.8**	**-1.0**	**-0.8**
Industry	100.7	82.0	87.1	84.8	80.9	33.8	26.3	28.8	30.5	32.3	-0.9	0.9	-0.3	-0.5	-0.1
Transportation	71.8	73.4	66.3	55.2	46.8	24.1	23.6	22.0	19.9	18.7	0.1	-1.4	-1.8	-1.6	-1.7
Others	90.9	117.8	112.9	102.7	89.8	30.5	37.8	37.4	37.0	35.9	1.1	-0.6	-0.9	-1.3	-1.0
Non-energy	34.4	38.1	35.7	35.0	32.9	11.6	12.2	11.8	12.6	13.1	0.4	-0.9	-0.2	-0.6	-0.5
Total	**297.8**	**311.4**	**302.1**	**277.7**	**250.4**	**100**	**100**	**100**	**100**	**100**	**0.2**	**-0.4**	**-0.8**	**-1.0**	**-0.8**
Coal	31.7	25.9	26.6	25.2	22.7	10.6	8.3	8.8	9.1	9.1	-0.9	0.3	-0.5	-1.0	-0.5
Oil	182.3	165.7	148.0	122.2	97.6	61.2	53.2	49.0	44.0	39.0	-0.4	-1.6	-1.9	-2.2	-1.9
Natural gas	15.2	33.9	35.2	34.2	31.8	5.1	10.9	11.7	12.3	12.7	3.5	0.5	-0.3	-0.7	-0.2
Electricity	64.5	81.7	85.1	85.6	84.3	21.6	26.2	28.2	30.8	33.7	1.0	0.6	0.1	-0.2	0.1
Heat	0.2	0.5	3.0	5.1	7.2	0.1	0.2	1.0	1.8	2.9	4.5	27.3	5.6	3.5	10.0
Others	3.9	3.6	4.3	5.4	6.8	1.3	1.1	1.4	1.9	2.7	-0.4	2.6	2.4	2.3	2.4

Power generation Output

	TWh										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**835.5**	**1,038.5**	**1,074.6**	**1,058.3**	**1,011.0**	**100**	**100**	**100**	**100**	**100**	**0.9**	**0.5**	**-0.2**	**-0.5**	**-0.1**
Coal	116.3	336.7	276.2	260.5	224.3	13.9	32.4	25.7	24.6	22.2	4.7	-2.8	-0.6	-1.5	-1.5
Oil	236.6	149.9	61.3	48.1	39.8	28.3	14.4	5.7	4.5	3.9	-2.0	-12.0	-2.4	-1.9	-4.8
Natural gas	178.5	401.7	268.6	273.7	248.5	21.4	38.7	25.0	25.9	24.6	3.6	-5.6	0.2	-1.0	-1.8
Nuclear	202.3	9.3	278.7	232.9	216.2	24.2	0.9	25.9	22.0	21.4	-12.5	62.5	-1.8	-0.7	12.4
Hydro	89.3	78.1	90.7	98.1	98.2	10.7	7.5	8.4	9.3	9.7	-0.6	2.2	0.8	0.0	0.9
Geothermal	1.7	2.6	4.3	11.7	17.7	0.2	0.2	0.4	1.1	1.8	1.8	7.4	10.6	4.2	7.4
Others	10.7	60.2	95.0	133.2	166.3	1.3	5.8	8.8	12.6	16.5	7.8	6.7	3.4	2.2	3.8

Power generation Input

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**109.3**	**172.3**	**116.3**	**109.2**	**94.0**	**100**	**100**	**100**	**100**	**100**	**2.0**	**-5.5**	**-0.6**	**-1.5**	**-2.2**
Coal	25.4	69.7	57.2	53.9	46.4	23.2	40.5	49.2	49.4	49.4	4.5	-2.8	-0.6	-1.5	-1.5
Oil	50.6	30.4	12.4	9.7	8.0	46.3	17.6	10.7	8.9	8.5	-2.2	-12.0	-2.4	-1.9	-4.8
Natural gas	33.3	72.1	46.7	45.5	39.6	30.5	41.9	40.1	41.7	42.1	3.4	-6.0	-0.3	-1.4	-2.2

Thermal Efficiency

	%										AAGR(%)				
	1990	2013	2020	2030	2040						1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**42**	**44**	**45**	**46**	**47**						**0.3**	**0.2**	**0.2**	**0.2**	**0.2**
Coal	39	42	42	42	42						0.2	0.0	0.0	0.0	0.0
Oil	40	42	42	43	43						0.2	0.0	0.0	0.0	0.0
Natural gas	46	48	49	52	54						0.2	0.5	0.4	0.4	0.4

CO_2 emissions

	Mt-C										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**291.8**	**336.6**	**280.4**	**250.9**	**214.7**	**100**	**100**	**100**	**100**	**100**	**0.6**	**-2.6**	**-1.1**	**-1.5**	**-1.7**
Coal	82.3	130.6	117.7	112.7	102.0	28.2	38.8	42.0	44.9	47.5	2.0	-1.5	-0.4	-1.0	-0.9
Oil	181.4	138.1	110.2	87.0	66.8	62.2	41.0	39.3	34.7	31.1	-1.2	-3.2	-2.3	-2.6	-2.7
Natural Gas	28.1	67.9	52.4	51.1	45.9	9.6	20.2	18.7	20.4	21.4	3.9	-3.6	-0.3	-1.1	-1.4

Energy and economic indicators

						AAGR(%)				
	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
GDP (billions of 2005 US dollars)	3,801	4,686	5,423	6,267	6,932	0.9	2.1	1.5	1.0	1.5
Population (millions of people)	124	127	125	120	114	0.1	-0.2	-0.4	-0.5	-0.4
GDP per capita (thousands of 2005 USD/person)	30.8	36.8	43.3	52.0	60.8	0.8	2.3	1.9	1.6	1.9
Primary energy consumption per capita (toe/person)	3.6	3.6	3.7	3.5	3.4	0.0	0.4	-0.4	-0.4	-0.2
Primary energy consumption per unit of GDP (toe/million 2005 US Dollars)	116	97	85	68	56	-0.8	-1.9	-2.2	-2.0	-2.0
Final energy consumption per unit of GDP (toe/million 2005 US Dollars)	78	66	56	44	36	-0.7	-2.5	-2.3	-2.0	-2.2
CO_2 emissions per unit of GDP (t-C/million 2005 US Dollars)	77	72	52	40	31	-0.3	-4.6	-2.5	-2.5	-3.1
CO_2 emissions per unit of primary energy consumption (t-C/toe)	0.7	0.7	0.6	0.6	0.6	0.5	-2.8	-0.3	-0.6	-1.1
Automobile ownership volume (millions of vehicles)	57.7	76.5	76.6	73.9	71.1	1.2	0.0	-0.4	-0.4	-0.3
Automobile ownership volume per capita (vehicles per person)	0.5	0.6	0.6	0.6	0.6	1.1	0.2	0.0	0.2	0.1

Korea [BAU]

Primary energy consumption

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**92.9**	**263.8**	**304.3**	**331.5**	**339.5**	**100**	**100**	**100**	**100**	**100**	**4.6**	**2.1**	**0.9**	**0.2**	**0.9**
Coal	25.4	77.9	79.3	87.5	90.2	27.3	29.5	26.1	26.4	26.6	5.0	0.3	1.0	0.3	0.5
Oil	49.7	96.6	102.5	102.6	101.5	53.5	36.6	33.7	30.9	29.9	2.9	0.9	0.0	-0.1	0.2
Natural gas	2.7	47.6	49.8	59.3	63.5	2.9	18.0	16.4	17.9	18.7	13.2	0.6	1.8	0.7	1.1
Nuclear	13.8	36.2	65.8	73.6	73.6	14.8	13.7	21.6	22.2	21.7	4.3	8.9	1.1	0.0	2.7
Hydro	0.5	0.4	0.4	0.4	0.4	0.6	0.1	0.1	0.1	0.1	-1.7	0.0	0.0	0.0	0.0
Geothermal	-	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	-	-2.8	1.9	1.6	0.6
Others	0.7	5.2	6.4	8.1	10.2	0.8	2.0	2.1	2.4	3.0	8.8	3.2	2.3	2.4	2.6
Biomass	0.7	4.3	4.9	5.7	6.5	0.8	1.6	1.6	1.7	1.9	8.1	1.8	1.5	1.2	1.5
Solar, Wind, Ocean	0.0	0.4	0.8	1.7	3.0	0.0	0.1	0.3	0.5	0.9	16.8	13.2	6.9	6.1	8.2
Biofuels	-	0.4	0.4	0.4	0.5	0.0	0.1	0.1	0.1	0.1	-	1.4	1.2	1.1	1.2
Electricit	-	0.1	0.3	0.3	0.3	0.0	0.0	0.1	0.1	0.1	-	16.1	0.0	0.0	3.9

Final energy demand

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**64.9**	**167.8**	**188.6**	**202.9**	**207.7**	**100**	**100**	**100**	**100**	**100**	**4.2**	**1.7**	**0.7**	**0.2**	**0.8**
Industry	19.3	47.7	55.8	61.1	60.6	29.7	28.4	29.6	30.1	29.2	4.0	2.3	0.9	-0.1	0.9
Transportation	14.6	31.4	34.4	34.7	34.4	22.5	18.7	18.3	17.1	16.6	3.4	1.3	0.1	-0.1	0.3
Others	24.3	45.0	48.6	53.4	57.4	37.5	26.8	25.8	26.3	27.6	2.7	1.1	0.9	0.7	0.9
Non-energy	6.7	43.8	49.7	53.7	55.3	10.4	26.1	26.4	26.5	26.6	8.5	1.8	0.8	0.3	0.9
Total	**64.9**	**167.8**	**188.6**	**202.9**	**207.7**	**100**	**100**	**100**	**100**	**100**	**4.2**	**1.7**	**0.7**	**0.2**	**0.8**
Coal	11.7	9.5	11.4	11.4	9.8	18.1	5.6	6.0	5.6	4.7	-0.9	2.7	0.0	-1.5	0.1
Oil	43.7	84.6	92.0	92.6	91.9	67.3	50.4	48.8	45.6	44.2	2.9	1.2	0.1	-0.1	0.3
Natural gas	0.7	24.1	26.9	30.8	30.8	1.0	14.4	14.3	15.2	14.8	16.8	1.6	1.4	0.0	0.9
Electricity	8.1	41.9	50.2	59.4	65.7	12.5	25.0	26.6	29.3	31.6	7.4	2.6	1.7	1.0	1.7
Heat	-	4.3	4.2	4.0	3.9	0.0	2.5	2.2	2.0	1.9	-	-0.3	-0.3	-0.4	-0.3
Others	0.7	3.5	3.9	4.7	5.6	1.1	2.1	2.1	2.3	2.7	7.0	1.8	1.7	1.9	1.8

Power generation Output

	TWh										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**105.4**	**537.9**	**634.5**	**749.1**	**827.4**	**100**	**100**	**100**	**100**	**100**	**7.3**	**2.4**	**1.7**	**1.0**	**1.6**
Coal	17.7	222.8	220.1	261.4	298.3	16.8	41.4	34.7	34.9	36.1	11.7	-0.2	1.7	1.3	1.1
Oil	18.9	21.4	11.0	7.5	6.3	17.9	4.0	1.7	1.0	0.8	0.6	-9.1	-3.7	-1.8	-4.4
Natural gas	9.6	144.8	135.0	172.9	202.2	9.1	26.9	21.3	23.1	24.4	12.5	-1.0	2.5	1.6	1.2
Nuclear	52.9	138.8	252.6	282.5	282.5	50.2	25.8	39.8	37.7	34.1	4.3	8.9	1.1	0.0	2.7
Hydro	6.4	4.3	4.3	4.3	4.3	6.0	0.8	0.7	0.6	0.5	-1.7	0.0	0.0	0.0	0.0
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Others	0.0	5.7	11.5	20.5	33.9	0.0	1.1	1.8	2.7	4.1	45.7	10.4	6.0	5.1	6.8

Power generation Input

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**12.5**	**81.4**	**77.2**	**89.9**	**100.0**	**100**	**100**	**100**	**100**	**100**	**8.5**	**-0.7**	**1.5**	**1.1**	**0.8**
Coal	6.0	53.6	51.6	59.2	65.3	47.7	65.9	66.8	65.9	65.4	10.0	-0.5	1.4	1.0	0.7
Oil	4.5	5.1	2.7	1.9	1.6	36.0	6.3	3.4	2.1	1.6	0.5	-8.9	-3.5	-1.6	-4.3
Natural gas	2.0	22.7	23.0	28.8	33.1	16.3	27.9	29.7	32.1	33.1	11.0	0.2	2.3	1.4	1.4

Thermal Efficiency

	%						AAGR(%)				
	1990	2013	2020	2030	2040		1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**32**	**41**	**41**	**42**	**44**		**1.1**	**-0.1**	**0.4**	**0.3**	**0.2**
Coal	25	36	37	38	39		1.5	0.4	0.3	0.3	0.3
Oil	36	36	36	35	34		0.0	-0.2	-0.2	-0.2	-0.2
Natural gas	41	55	51	52	53		1.3	-1.2	0.2	0.2	-0.2

CO_2 emissions

	Mt-C										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**65.2**	**158.7**	**161.6**	**173.3**	**176.7**	**100**	**100**	**100**	**100**	**100**	**3.9**	**0.3**	**0.7**	**0.2**	**0.4**
Coal	27.4	83.6	85.1	94.0	96.9	42.1	52.7	52.7	54.2	54.8	5.0	0.3	1.0	0.3	0.5
Oil	36.0	44.6	44.6	41.3	39.1	55.2	28.1	27.6	23.8	22.1	0.9	0.0	-0.8	-0.6	-0.5
Natural Gas	1.7	30.5	31.9	38.0	40.7	2.7	19.2	19.8	21.9	23.0	13.2	0.6	1.8	0.7	1.1

Energy and economic indicators

						AAGR(%)				
	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
GDP (billions of 2005 US dollars)	378	1,199	1,530	1,991	2,382	5.1	3.5	2.7	1.8	2.6
Population (millions of people)	43	50	51	52	51	0.7	0.3	0.1	-0.2	0.1
GDP per capita (thousands of 2005 USD/person)	8.8	23.9	29.7	38.2	46.6	4.4	3.2	2.5	2.0	2.5
Primary energy consumption per capita (toe/person)	2.2	5.3	5.9	6.4	6.6	3.9	1.7	0.7	0.4	0.9
Primary energy consumption per unit of GDP (toe/million 2005 US Dollars)	246	220	199	166	143	-0.5	-1.4	-1.8	-1.5	-1.6
Final energy consumption per unit of GDP (toe/million 2005 US Dollars)	172	140	123	102	87	-0.9	-1.8	-1.9	-1.5	-1.7
CO_2 emissions per unit of GDP (t-C/million 2005 US Dollars)	172	132	106	87	74	-1.1	-3.2	-1.9	-1.6	-2.1
CO_2 emissions per unit of primary energy consumption (t-C/toe)	0.7	0.6	0.5	0.5	0.5	-0.7	-1.8	-0.2	0.0	-0.5
Automobile ownership volume (millions of vehicles)	3.4	19.4	22.3	26.1	28.8	7.9	2.0	1.6	1.0	1.5
Automobile ownership volume per capita (vehicles per person)	0.1	0.4	0.4	0.5	0.6	7.1	1.7	1.4	1.2	1.4

Korea [APS]

Primary energy consumption

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**92.9**	**263.8**	**297.5**	**312.4**	**307.6**	**100**	**100**	**100**	**100**	**100**	**4.6**	**1.7**	**0.5**	**-0.2**	**0.6**
Coal	25.4	77.9	76.3	73.5	62.8	27.3	29.5	25.6	23.5	20.4	5.0	-0.3	-0.4	-1.6	-0.8
Oil	49.7	96.6	101.2	97.1	92.3	53.5	36.6	34.0	31.1	30.0	2.9	0.7	-0.4	-0.5	-0.2
Natural gas	2.7	47.6	46.7	48.9	44.2	2.9	18.0	15.7	15.6	14.4	13.2	-0.3	0.5	-1.0	-0.3
Nuclear	13.8	36.2	65.8	80.1	89.8	14.8	13.7	22.1	25.6	29.2	4.3	8.9	2.0	1.2	3.4
Hydro	0.5	0.4	0.4	0.4	0.4	0.6	0.1	0.1	0.1	0.1	-1.7	0.0	0.0	0.0	0.0
Geothermal	-	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	-	-2.8	1.9	1.6	0.6
Others	0.7	5.2	7.1	12.4	17.8	0.8	2.0	2.4	4.0	5.8	8.8	4.6	5.8	3.7	4.7
Biomass	0.7	4.3	5.0	5.9	6.8	0.8	1.6	1.7	1.9	2.2	8.1	2.1	1.7	1.3	1.7
Solar, Wind, Ocean	0.0	0.4	1.4	5.3	9.9	0.0	0.1	0.5	1.7	3.2	16.8	21.3	14.5	6.3	13.1
Biofuels	-	0.4	0.4	0.8	1.0	0.0	0.1	0.1	0.3	0.3	-	1.6	7.4	1.7	3.8
Electricit	-	0.1	0.3	0.3	0.3	0.0	0.0	0.1	0.1	0.1	-	16.1	0.0	0.0	3.9

Final energy demand

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**64.9**	**167.8**	**184.4**	**191.5**	**188.0**	**100**	**100**	**100**	**100**	**100**	**4.2**	**1.4**	**0.4**	**-0.2**	**0.4**
Industry	19.3	47.7	54.1	57.1	54.1	29.7	28.4	29.4	29.8	28.8	4.0	1.8	0.5	-0.5	0.5
Transportation	14.6	31.4	33.2	31.1	28.5	22.5	18.7	18.0	16.2	15.2	3.4	0.8	-0.7	-0.9	-0.4
Others	24.3	45.0	47.3	49.6	50.1	37.5	26.8	25.6	25.9	26.6	2.7	0.7	0.5	0.1	0.4
Non-energy	6.7	43.8	49.7	53.7	55.3	10.4	26.1	27.0	28.0	29.4	8.5	1.8	0.8	0.3	0.9
Total	**64.9**	**167.8**	**184.4**	**191.5**	**188.0**	**100**	**100**	**100**	**100**	**100**	**4.2**	**1.4**	**0.4**	**-0.2**	**0.4**
Coal	11.7	9.5	11.1	10.6	8.4	18.1	5.6	6.0	5.5	4.5	-0.9	2.3	-0.4	-2.3	-0.4
Oil	43.7	84.6	91.1	88.0	84.0	67.3	50.4	49.4	45.9	44.7	2.9	1.1	-0.3	-0.5	0.0
Natural gas	0.7	24.1	25.1	27.4	25.8	1.0	14.4	13.6	14.3	13.7	16.8	0.5	0.9	-0.6	0.2
Electricity	8.1	41.9	49.2	56.8	60.4	12.5	25.0	26.7	29.7	32.1	7.4	2.3	1.5	0.6	1.4
Heat	-	4.3	4.0	3.8	3.4	0.0	2.5	2.2	2.0	1.8	-	-0.7	-0.7	-0.9	-0.8
Others	0.7	3.5	3.9	4.9	5.9	1.1	2.1	2.1	2.6	3.1	7.0	1.6	2.4	1.8	2.0

Power generation Output

	TWh										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**105.4**	**537.9**	**622.7**	**717.5**	**761.9**	**100**	**100**	**100**	**100**	**100**	**7.3**	**2.1**	**1.4**	**0.6**	**1.3**
Coal	17.7	222.8	209.0	202.2	175.6	16.8	41.4	33.6	28.2	23.0	11.7	-0.9	-0.3	-1.4	-0.9
Oil	18.9	21.4	10.5	5.8	3.7	17.9	4.0	1.7	0.8	0.5	0.6	-9.7	-5.7	-4.4	-6.3
Natural gas	9.6	144.8	128.2	133.3	118.1	9.1	26.9	20.6	18.6	15.5	12.5	-1.7	0.4	-1.2	-0.8
Nuclear	52.9	138.8	252.6	307.4	344.8	50.2	25.8	40.6	42.8	45.2	4.3	8.9	2.0	1.2	3.4
Hydro	6.4	4.3	4.3	4.3	4.3	6.0	0.8	0.7	0.6	0.6	-1.7	0.0	0.0	0.0	0.0
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Others	0.0	5.7	18.1	64.5	115.5	0.0	1.1	2.9	9.0	15.2	45.7	17.9	13.5	6.0	11.8

Power generation Input

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**12.5**	**81.4**	**72.7**	**68.0**	**56.8**	**100**	**100**	**100**	**100**	**100**	**8.5**	**-1.6**	**-0.7**	**-1.8**	**-1.3**
Coal	6.0	53.6	48.7	45.0	37.5	47.7	65.9	66.9	66.2	66.0	10.0	-1.4	-0.8	-1.8	-1.3
Oil	4.5	5.1	2.5	1.4	0.9	36.0	6.3	3.5	2.1	1.6	0.5	-9.6	-5.5	-4.2	-6.1
Natural gas	2.0	22.7	21.5	21.6	18.4	16.3	27.9	29.6	31.7	32.4	11.0	-0.7	0.0	-1.6	-0.8

Thermal Efficiency

	%					AAGR(%)				
	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**32**	**41**	**41**	**43**	**45**	**1.1**	**0.0**	**0.5**	**0.4**	**0.3**
Coal	25	36	37	39	40	1.5	0.5	0.4	0.4	0.4
Oil	36	36	36	35	34	0.0	-0.2	-0.2	-0.2	-0.2
Natural gas	41	55	51	53	55	1.3	-1.0	0.4	0.4	0.0

CO_2 emissions

	Mt-C										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**65.2**	**158.7**	**155.3**	**146.9**	**127.1**	**100**	**100**	**100**	**100**	**100**	**3.9**	**-0.3**	**-0.6**	**-1.4**	**-0.8**
Coal	27.4	83.6	81.9	78.9	67.4	42.1	52.7	52.7	53.7	53.0	5.0	-0.3	-0.4	-1.6	-0.8
Oil	36.0	44.6	43.5	36.7	31.4	55.2	28.1	28.0	25.0	24.7	0.9	-0.3	-1.7	-1.6	-1.3
Natural Gas	1.7	30.5	29.9	31.3	28.4	2.7	19.2	19.3	21.3	22.3	13.2	-0.3	0.5	-1.0	-0.3

Energy and economic indicators

						AAGR(%)				
	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
GDP (billions of 2005 US dollars)	378	1,199	1,530	1,991	2,382	5.1	3.5	2.7	1.8	2.6
Population (millions of people)	43	50	51	52	51	0.7	0.3	0.1	-0.2	0.1
GDP per capita (thousands of 2005 USD/person)	8.8	23.9	29.7	38.2	46.6	4.4	3.2	2.5	2.0	2.5
Primary energy consumption per capita (toe/person)	2.2	5.3	5.8	6.0	6.0	3.9	1.4	0.3	0.1	0.5
Primary energy consumption per unit of GDP (toe/million 2005 US Dollars)	246	220	195	157	129	-0.5	-1.7	-2.1	-1.9	-2.0
Final energy consumption per unit of GDP (toe/million 2005 US Dollars)	172	140	121	96	79	-0.9	-2.1	-2.2	-2.0	-2.1
CO_2 emissions per unit of GDP (t-C/million 2005 US Dollars)	172	132	102	74	53	-1.1	-3.7	-3.1	-3.2	-3.3
CO_2 emissions per unit of primary energy consumption (t-C/toe)	0.7	0.6	0.5	0.5	0.4	-0.7	-2.0	-1.0	-1.3	-1.4
Automobile ownership volume (millions of vehicles)	3.4	19.4	22.3	26.1	28.8	7.9	2.0	1.6	1.0	1.5
Automobile ownership volume per capita (vehicles per person)	0.1	0.4	0.4	0.5	0.6	7.1	1.7	1.4	1.2	1.4

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Primary energy consumption

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**1.20**	**2.47**	**5.26**	**7.23**	**9.52**	**100**	**100**	**100**	**100**	**100**	**3.2**	**11.4**	**3.2**	**2.8**	**5.1**
Coal	0.00	0.00	3.12	3.65	3.65	0.0	0.2	59.3	50.4	38.4	-	155.4	1.6	0.0	28.3
Oil	0.16	0.84	1.15	1.95	3.02	13.6	34.1	21.8	27.0	31.7	7.4	4.5	5.5	4.5	4.8
Natural gas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hydro	0.07	1.33	1.87	3.30	4.35	5.9	53.9	35.6	45.7	45.7	13.6	5.0	5.8	2.8	4.5
Geothermal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	0.97	0.29	-0.88	-1.67	-1.50	80.5	11.9	-16.6	-23.1	-15.7	-5.0	-216.9	6.7	-1.1	-206.2
Biomass	1.01	1.27	1.37	1.52	1.69	84.6	51.3	26.0	21.0	17.8	1.0	1.1	1.1	1.1	1.1
Solar, Wind, Ocean	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Biofuels	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Electricity	-0.05	-0.98	-2.24	-3.19	-3.19	-4.1	-39.5	-42.6	-44.1	-33.5	13.9	12.6	3.6	0.0	4.5

Final energy demand

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**1.09**	**2.41**	**3.10**	**4.65**	**6.89**	**100**	**100**	**100**	**100**	**100**	**3.5**	**3.7**	**4.2**	**4.0**	**4.0**
Industry	0.04	0.16	0.22	0.35	0.57	3.6	6.8	7.0	7.5	8.3	6.4	4.2	4.9	5.0	4.8
Transportation	0.16	0.81	1.11	1.91	2.97	14.7	33.7	35.8	41.0	43.1	7.3	4.6	5.6	4.5	4.9
Others	0.89	1.43	1.77	2.39	3.35	81.7	59.5	57.1	51.4	48.6	2.1	3.1	3.1	3.4	3.2
Non-energy	-	0.00	0.00	0.00	0.01	0.0	0.1	0.1	0.1	0.1	-	2.0	2.5	2.0	2.2
Total	**1.09**	**2.41**	**3.10**	**4.65**	**6.89**	**100**	**100**	**100**	**100**	**100**	**3.5**	**3.7**	**4.2**	**4.0**	**4.0**
Coal	0.00	0.00	0.02	0.03	0.04	0.0	0.2	0.6	0.7	0.5	-	22.7	5.3	1.8	8.2
Oil	0.16	0.84	1.15	1.95	3.02	14.9	35.0	37.0	41.9	43.8	7.4	4.5	5.5	4.5	4.8
Natural gas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Electricity	0.01	0.29	0.57	1.15	2.14	1.3	12.1	18.3	24.7	31.1	14.0	10.0	7.3	6.4	7.7
Heat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	0.92	1.27	1.37	1.52	1.69	83.8	52.7	44.2	32.7	24.6	1.4	1.1	1.1	1.1	1.1

Power generation Output

	TWh										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**0.82**	**15.51**	**34.40**	**53.12**	**65.30**	**100**	**100**	**100**	**100**	**100**	**13.6**	**12.1**	**4.4**	**2.1**	**5.5**
Coal	0.00	0.00	12.61	14.72	14.72	0.0	0.0	36.7	27.7	22.5	-	-	1.6	0.0	-
Oil	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Natural gas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hydro	0.82	15.51	21.79	38.41	50.58	100.0	100.0	63.3	72.3	77.5	13.6	5.0	5.8	2.8	4.5
Geothermal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-

Power generation Input

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**0.00**	**0.00**	**3.10**	**3.62**	**3.62**	**-**	**-**	**100**	**100**	**100**	**-**	**-**	**1.6**	**0.0**	**-**
Coal	0.00	0.00	3.10	3.62	3.62	0.0	0.0	100.0	100.0	100.0	-	-	1.6	0.0	-
Oil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Natural gas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Thermal Efficiency

	%						AAGR(%)				
	1990	2013	2020	2030	2040		1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**-**	**-**	**35**	**35**	**35**		**-**	**-**	**0.0**	**0.0**	**-**
Coal	-	-	35	35	35		-	-	0.0	0.0	-
Oil	-	-	-	-	-		-	-	-	-	-
Natural gas	-	-	-	-	-		-	-	-	-	-

CO_2 emissions

BAU	Mt-C										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**0.20**	**0.70**	**4.55**	**5.82**	**6.70**	**100**	**100**	**100**	**100**	**100**	**5.6**	**30.7**	**2.5**	**1.4**	**8.7**
Coal	0.00	0.00	3.60	4.21	4.22	0.0	0.7	79.3	72.4	63.0	-	157.3	1.6	0.0	28.5
Oil	0.20	0.69	0.94	1.60	2.48	100.0	99.3	20.7	27.6	37.0	5.6	4.5	5.5	4.5	4.8
Natural Gas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Energy and economic indicators

						AAGR(%)				
	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
GDP (billions of 2005 US dollars)	1.1	5.1	8.2	15.3	26.5	6.8	7.1	6.4	5.7	6.3
Population (millions of people)	4.2	6.6	7.3	8.5	9.8	1.9	1.5	1.5	1.5	1.5
GDP per capita (thousands of 2005 USD/person)	0.26	0.77	1.1	1.8	2.7	4.8	5.5	4.8	4.1	4.7
Primary energy consumption per capita (toe/person)	0.3	0.4	0.7	0.9	1.0	1.2	9.7	1.7	1.3	3.6
Primary energy consumption per unit of GDP (toe/million 2005 US Dollars)	1,080	486	640	474	359	-3.4	4.0	-3.0	-2.7	-1.1
Final energy consumption per unit of GDP (toe/million 2005 US Dollars)	984	473	377	305	260	-3.1	-3.2	-2.1	-1.6	-2.2
CO_2 emissions per unit of GDP (t-C/million 2005 US Dollars)	180	137	553	381	253	-1.2	22.1	-3.6	-4.0	2.3
CO_2 emissions per unit of primary energy consumption (t-C/toe)	0.2	0.3	0.9	0.8	0.7	2.3	17.3	-0.7	-1.3	3.4
Automobile ownership volume (millions of vehicles)						-	-	-	-	-
Automobile ownership volume per capita (vehicles per person)	-	-	-	-	-	-	-	-	-	-

Lao PDR (APS]

Primary energy consumption

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**1.20**	**2.47**	**4.96**	**6.78**	**8.84**	**100**	**100**	**100**	**100**	**100**	**3.2**	**10.4**	**3.2**	**2.7**	**4.8**
Coal	-	0.00	3.12	3.64	3.65	0.0	0.2	62.8	53.8	41.3	-	155.4	1.6	0.0	28.3
Oil	0.16	0.84	1.04	1.76	2.73	13.6	34.1	20.9	26.0	30.8	7.4	3.0	5.5	4.5	4.4
Natural gas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hydro	0.07	1.33	1.81	3.18	4.12	5.9	53.9	36.6	47.0	46.6	13.6	4.5	5.8	2.6	4.3
Geothermal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	0.97	0.29	-1.01	-1.81	-1.66	80.5	11.9	-20.3	-26.7	-18.7	-5.0	-219.2	6.1	-0.9	-206.6
Biomass	1.01	1.27	1.24	1.38	1.53	84.6	51.3	25.0	20.3	17.3	1.0	-0.4	1.1	1.1	0.7
Solar, Wind, Ocean	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Biofuels	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Electricity	-0.05	-0.98	-2.24	-3.19	-3.19	-4.1	-39.5	-45.2	-47.1	-36.1	13.9	12.6	3.6	0.0	4.5

Final energy demand

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**1.09**	**2.41**	**2.80**	**4.20**	**6.22**	**100**	**100**	**100**	**100**	**100**	**3.5**	**2.2**	**4.1**	**4.0**	**3.6**
Industry	0.04	0.16	0.20	0.32	0.52	3.6	6.8	7.2	7.7	8.4	6.4	3.1	4.8	4.9	4.4
Transportation	0.16	0.81	1.00	1.72	2.68	14.7	33.7	35.7	41.0	43.0	7.3	3.1	5.6	4.5	4.5
Others	0.89	1.43	1.59	2.15	3.02	81.7	59.5	56.9	51.2	48.5	2.1	1.5	3.1	3.4	2.8
Non-energy	-	0.00	0.00	0.00	0.00	0.0	0.1	0.1	0.1	0.1	-	1.3	2.5	2.0	2.0
Total	**1.09**	**2.41**	**2.80**	**4.20**	**6.22**	**100**	**100**	**100**	**100**	**100**	**3.5**	**2.2**	**4.1**	**4.0**	**3.6**
Coal	-	0.00	0.02	0.03	0.03	0.0	0.2	0.6	0.7	0.5	-	20.8	5.3	1.8	7.8
Oil	0.16	0.84	1.04	1.76	2.73	14.9	35.0	37.0	41.9	43.8	7.4	3.0	5.5	4.5	4.4
Natural gas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Electricity	0.01	0.29	0.51	1.04	1.93	1.3	12.1	18.2	24.6	31.0	14.0	8.4	7.3	6.4	7.3
Heat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	0.92	1.27	1.24	1.38	1.53	83.8	52.7	44.2	32.8	24.6	1.4	-0.4	1.1	1.1	0.7

Power generation Output

	TWh										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**0.82**	**15.51**	**33.71**	**51.72**	**62.67**	**100**	**100**	**100**	**100**	**100**	**13.6**	**11.7**	**4.4**	**1.9**	**5.3**
Coal	0.00	0.00	12.61	14.72	14.72	0.0	0.0	37.4	28.5	23.5	-	-	1.6	0.0	-
Oil	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Natural gas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hydro	0.82	15.51	21.09	37.00	47.95	100.0	100.0	62.6	71.5	76.5	13.6	4.5	5.8	2.6	4.3
Geothermal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-

Power generation Input

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**0.00**	**0.00**	**3.10**	**3.62**	**3.62**	**-**	**-**	**100**	**100**	**100**	**-**	**-**	**1.6**	**0.0**	**-**
Coal	0.00	0.00	3.10	3.62	3.62	0.0	0.0	100.0	100.0	100.0	-	-	1.6	0.0	-
Oil	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Natural gas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Thermal Efficiency

	%						AAGR(%)				
	1990	2013	2020	2030	2040		1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**-**	**-**	**35**	**35**	**35**		**-**	**-**	**0.0**	**0.0**	**-**
Coal	-	-	35	35	35		-	-	0.0	0.0	-
Oil	-	-	-	-	-		-	-	-	-	-
Natural gas	-	-	-	-	-		-	-	-	-	-

CO_2 emissions

APS5	Mt-C										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**0.20**	**0.70**	**4.45**	**5.66**	**6.46**	**100**	**100**	**100**	**100**	**100**	**5.6**	**30.3**	**2.4**	**1.3**	**8.6**
Coal	-	0.00	3.60	4.21	4.22	0.0	0.7	80.9	74.4	65.3	-	157.3	1.6	0.0	28.5
Oil	0.20	0.69	0.85	1.45	2.24	100.0	99.3	19.1	25.6	34.7	5.6	3.0	5.5	4.5	4.4
Natural Gas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Energy and economic indicators

						AAGR(%)				
	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
GDP (billions of 2005 US dollars)	1.1	5.1	8.2	15.3	26.5	6.8	7.1	6.4	5.7	6.3
Population (millions of people)	4.2	6.6	7.3	8.5	9.8	1.9	1.5	1.5	1.5	1.5
GDP per capita (thousands of 2005 USD/person)	0.3	0.8	1.1	1.8	2.7	4.8	5.5	4.8	4.1	4.7
Primary energy consumption per capita (toe/person)	0.3	0.4	0.7	0.8	0.9	1.2	8.8	1.6	1.2	3.3
Primary energy consumption per unit of GDP (toe/million 2005 US Dollars)	1,080	486	603	444	333	-3.4	3.1	-3.0	-2.8	-1.4
Final energy consumption per unit of GDP (toe/million 2005 US Dollars)	984	473	340	275	235	-3.1	-4.6	-2.1	-1.6	-2.6
CO_2 emissions per unit of GDP (t-C/million 2005 US Dollars)	180	137	541	371	244	-1.2	21.7	-3.7	-4.1	2.2
CO_2 emissions per unit of primary energy consumption (t-C/toe)	0.2	0.3	0.9	0.8	0.7	2.3	18.0	-0.7	-1.3	3.6
Automobile ownership volume (millions of vehicles)						-	-	-	-	-
Automobile ownership volume per capita (vehicles per person)	-	-	-	-	-	-	-	-	-	-

Malaysia [BAU]

Primary energy consumption

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**19.84**	**74.48**	**104.48**	**155.05**	**216.08**	**100**	**100**	**100**	**100**	**100**	**5.9**	**5.0**	**4.0**	**3.4**	**4.0**
Coal	1.36	14.65	22.79	36.01	53.32	6.8	19.7	21.8	23.2	24.7	10.9	6.5	4.7	4.0	4.9
Oil	11.35	32.51	43.24	61.82	82.84	57.2	43.7	41.4	39.9	38.3	4.7	4.2	3.6	3.0	3.5
Natural gas	6.80	25.62	35.89	53.93	76.55	34.3	34.4	34.3	34.8	35.4	5.9	4.9	4.2	3.6	4.1
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hydro	0.34	0.91	1.76	2.69	2.75	1.7	1.2	1.7	1.7	1.3	4.3	9.8	4.4	0.2	4.2
Geothermal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	-0.01	0.78	0.81	0.60	0.61	0.0	1.0	0.8	0.4	0.3	-224.5	0.6	-3.0	0.1	-0.9
Biomass	0.00	0.16	1.12	1.12	1.12	0.0	0.2	1.1	0.7	0.5	-	31.4	0.0	0.0	7.3
Solar, Wind, Ocean	0.00	0.02	0.02	0.02	0.02	0.0	0.0	0.0	0.0	0.0	-	4.6	0.0	0.0	1.2
Biofuels	0.00	0.19	0.20	0.22	0.25	0.0	0.3	0.2	0.1	0.1	-	1.0	1.0	1.0	1.0
Electricity	-0.01	0.41	-0.53	-0.76	-0.78	0.0	0.5	-0.5	-0.5	-0.4	-221.1	-203.8	3.7	0.2	-202.4

Final energy demand

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**12.52**	**55.29**	**77.03**	**113.82**	**157.37**	**100**	**100**	**100**	**100**	**100**	**6.7**	**4.9**	**4.0**	**3.3**	**4.0**
Industry	5.30	15.26	24.43	35.33	47.92	42.3	27.6	31.7	31.0	30.4	4.7	7.0	3.8	3.1	4.3
Transportation	4.76	22.36	30.42	45.01	62.26	38.0	40.4	39.5	39.5	39.6	7.0	4.5	4.0	3.3	3.9
Others	1.62	8.46	11.62	18.13	26.18	13.0	15.3	15.1	15.9	16.6	7.4	4.6	4.6	3.7	4.3
Non-energy	0.84	9.22	10.57	15.35	21.02	6.7	16.7	13.7	13.5	13.4	11.0	2.0	3.8	3.2	3.1
Total	**12.52**	**55.29**	**77.03**	**113.82**	**157.37**	**100**	**100**	**100**	**100**	**100**	**6.7**	**4.9**	**4.0**	**3.3**	**4.0**
Coal	0.51	1.54	2.65	3.93	5.47	4.1	2.8	3.4	3.5	3.5	4.9	8.1	4.0	3.4	4.8
Oil	9.19	30.60	41.74	59.79	80.83	73.5	55.3	54.2	52.5	51.4	5.4	4.5	3.7	3.1	3.7
Natural gas	1.09	12.01	16.68	25.26	35.41	8.7	21.7	21.7	22.2	22.5	11.0	4.8	4.2	3.4	4.1
Electricity	1.72	10.95	15.77	24.62	35.43	13.7	19.8	20.5	21.6	22.5	8.4	5.3	4.6	3.7	4.4
Heat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	0.00	0.19	0.20	0.22	0.25	0.0	0.3	0.3	0.2	0.2	-	1.0	1.0	1.0	1.0

Power generation Output

	TWh										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**23.02**	**133.29**	**205.50**	**320.13**	**456.89**	**100**	**100**	**100**	**100**	**100**	**7.9**	**6.4**	**4.5**	**3.6**	**4.7**
Coal	2.93	53.37	83.67	136.54	206.14	12.7	40.0	40.7	42.7	45.1	13.4	6.6	5.0	4.2	5.1
Oil	10.56	5.26	2.41	2.70	2.61	45.9	3.9	1.2	0.8	0.6	-3.0	-10.5	1.1	-0.3	-2.6
Natural gas	5.54	63.32	94.82	145.41	211.93	24.1	47.5	46.1	45.4	46.4	11.2	5.9	4.4	3.8	4.6
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hydro	3.99	10.59	20.41	31.28	32.01	17.3	7.9	9.9	9.8	7.0	4.3	9.8	4.4	0.2	4.2
Geothermal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	0.00	0.75	4.20	4.20	4.20	0.0	0.6	2.0	1.3	0.9	-	27.8	0.0	0.0	6.6

Power generation Input

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**5.16**	**28.09**	**40.07**	**61.54**	**89.77**	**100**	**100**	**100**	**100**	**100**	**7.6**	**5.2**	**4.4**	**3.8**	**4.4**
Coal	0.81	13.11	20.19	32.13	47.90	15.7	46.7	50.4	52.2	53.4	12.9	6.4	4.8	4.1	4.9
Oil	2.99	1.37	0.63	0.70	0.68	57.9	4.9	1.6	1.1	0.8	-3.3	-10.5	1.1	-0.3	-2.6
Natural gas	1.36	13.61	19.25	28.71	41.19	26.4	48.5	48.0	46.7	45.9	10.5	5.1	4.1	3.7	4.2

Thermal Efficiency

	%										AAGR(%)				
	1990	2013	2020	2030	2040						1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**32**	**37**	**39**	**40**	**40**						**0.7**	**0.6**	**0.2**	**0.1**	**0.3**
Coal	31	35	36	37	37						0.5	0.3	0.3	0.1	0.2
Oil	30	33	33	33	33						0.4	0.0	0.0	0.0	0.0
Natural gas	35	40	42	44	44						0.6	0.8	0.3	0.2	0.4

CO_2 emissions

	Mt-C										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**13.60**	**51.42**	**74.11**	**111.12**	**157.14**	**100**	**100**	**100**	**100**	**100**	**6.0**	**5.4**	**4.1**	**3.5**	**4.2**
Coal	1.40	15.51	24.12	38.12	56.45	10.3	30.2	32.6	34.3	35.9	11.0	6.5	4.7	4.0	4.9
Oil	10.30	24.18	32.48	46.90	63.63	75.7	47.0	43.8	42.2	40.5	3.8	4.3	3.7	3.1	3.6
Natural Gas	1.90	11.73	17.50	26.10	37.06	14.0	22.8	23.6	23.5	23.6	8.2	5.9	4.1	3.6	4.4

Energy and economic indicators

	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
						AAGR(%)				
GDP (billions of 2005 US dollars)	57	208	285	415	571	5.8	4.6	3.8	3.2	3.8
Population (millions of people)	18	29	32	36	39	2.1	1.4	1.1	0.8	1.0
GDP per capita (thousands of 2005 USD/person)	3.1	7.1	8.8	11.5	14.7	3.6	3.2	2.7	2.4	2.7
Primary energy consumption per capita (toe/person)	1.09	2.53	3.23	4.30	5.56	3.7	3.5	2.9	2.6	3.0
Primary energy consumption per unit of GDP (toe/million 2005 US Dollars)	346	358	366	374	379	0.1	0.3	0.2	0.1	0.2
Final energy consumption per unit of GDP (toe/million 2005 US Dollars)	218	266	270	274	276	0.9	0.2	0.2	0.1	0.1
CO_2 emissions per unit of GDP (t-C/million 2005 US Dollars)	237	247	260	268	275	0.2	0.7	0.3	0.3	0.4
CO_2 emissions per unit of primary energy consumption (t-C/toe)	0.69	0.69	0.71	0.72	0.73	0.0	0.4	0.1	0.1	0.2
Automobile ownership volume (millions of vehicles)						-	-	-	-	-
Automobile ownership volume per capita (vehicles per person)	-	-	-	-	-	-	-	-	-	-

Malaysia [APS]

Primary energy consumption

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**19.84**	**74.48**	**100.40**	**138.13**	**176.87**	**100**	**100**	**100**	**100**	**100**	**5.9**	**4.4**	**3.2**	**2.5**	**3.3**
Coal	1.36	14.65	20.37	26.20	32.52	6.8	19.7	20.3	19.0	18.4	10.9	4.8	2.5	2.2	3.0
Oil	11.35	32.51	42.14	59.32	78.59	57.2	43.7	42.0	42.9	44.4	4.7	3.8	3.5	2.9	3.3
Natural gas	6.80	25.62	33.60	43.55	56.20	34.3	34.4	33.5	31.5	31.8	5.9	3.9	2.6	2.6	3.0
Nuclear	-	-	-	2.20	2.26	-	-	-	1.6	1.3	-	-	-	0.3	-
Hydro	0.34	0.91	1.82	2.85	2.92	1.7	1.2	1.8	2.1	1.6	4.3	10.4	4.6	0.2	4.4
Geothermal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	-0.01	0.78	2.46	4.00	4.38	0.0	1.0	2.5	2.9	2.5	-224.5	17.9	5.0	0.9	6.6
Biomass	-	0.16	1.62	2.33	2.33	-	0.2	1.6	1.7	1.3	-	38.6	3.7	0.0	10.3
Solar, Wind, Ocean	-	0.02	0.64	1.52	1.52	-	0.0	0.6	1.1	0.9	-	67.3	9.0	0.0	18.0
Biofuels	-	0.19	0.85	1.18	1.57	-	0.3	0.8	0.9	0.9	-	24.0	3.4	2.9	8.2
Electricity	-0.01	0.41	-0.64	-1.03	-1.05	0.0	0.5	-0.6	-0.7	-0.6	-221.1	-206.6	4.9	0.2	-203.6

Final energy demand

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**12.52**	**55.29**	**75.10**	**105.45**	**138.25**	**100**	**100**	**100**	**100**	**100**	**6.7**	**4.5**	**3.5**	**2.7**	**3.5**
Industry	5.30	15.26	22.93	29.04	33.89	42.3	27.6	30.5	27.5	24.5	4.7	6.0	2.4	1.6	3.0
Transportation	4.76	22.36	30.42	45.01	62.26	38.0	40.4	40.5	42.7	45.0	7.0	4.5	4.0	3.3	3.9
Others	1.62	8.46	11.18	16.04	21.08	13.0	15.3	14.9	15.2	15.2	7.4	4.1	3.7	2.8	3.4
Non-energy	0.84	9.22	10.57	15.35	21.02	6.7	16.7	14.1	14.6	15.2	11.0	2.0	3.8	3.2	3.1
Total	**12.52**	**55.29**	**75.10**	**105.45**	**138.25**	**100**	**100**	**100**	**100**	**100**	**6.7**	**4.5**	**3.5**	**2.7**	**3.5**
Coal	0.51	1.54	2.51	3.32	4.05	4.1	2.8	3.3	3.1	2.9	4.9	7.2	2.8	2.0	3.6
Oil	9.19	30.60	40.65	57.31	76.56	73.5	55.3	54.1	54.3	55.4	5.4	4.1	3.5	2.9	3.5
Natural gas	1.09	12.01	16.28	23.47	31.27	8.7	21.7	21.7	22.3	22.6	11.0	4.4	3.7	2.9	3.6
Electricity	1.72	10.95	14.82	20.18	24.80	13.7	19.8	19.7	19.1	17.9	8.4	4.4	3.1	2.1	3.1
Heat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	0.19	0.85	1.18	1.57	0.0	0.3	1.1	1.1	1.1	-	24.0	3.4	2.9	8.2

Power generation Output

	TWh										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**23.02**	**133.29**	**194.35**	**266.68**	**325.28**	**100**	**100**	**100**	**100**	**100**	**7.9**	**5.5**	**3.2**	**2.0**	**3.4**
Coal	2.93	53.37	76.00	103.44	132.47	12.7	40.0	39.1	38.8	40.7	13.4	5.2	3.1	2.5	3.4
Oil	10.56	5.26	2.38	2.64	2.70	45.9	3.9	1.2	1.0	0.8	-3.0	-10.7	1.0	0.3	-2.4
Natural gas	5.54	63.32	86.19	104.13	132.69	24.1	47.5	44.3	39.0	40.8	11.2	4.5	1.9	2.5	2.8
Nuclear	-	-	-	8.45	8.67	0.0	0.0	0.0	3.2	2.7	-	-	-	0.3	-
Hydro	3.99	10.59	21.19	33.18	33.91	17.3	7.9	10.9	12.4	10.4	4.3	10.4	4.6	0.2	4.4
Geothermal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	0.00	0.75	8.58	14.84	14.84	0.0	0.6	4.4	5.6	4.6	-	41.6	5.6	0.0	11.7

Power generation Input

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**5.16**	**28.09**	**35.81**	**43.65**	**54.11**	**100**	**100**	**100**	**100**	**100**	**7.6**	**3.5**	**2.0**	**2.2**	**2.5**
Coal	0.81	13.11	17.86	22.89	28.48	15.7	46.7	49.9	52.4	52.6	12.9	4.5	2.5	2.2	2.9
Oil	2.99	1.37	0.62	0.69	0.70	57.9	4.9	1.7	1.6	1.3	-3.3	-10.7	1.0	0.3	-2.4
Natural gas	1.36	13.61	17.33	20.08	24.93	26.4	48.5	48.4	46.0	46.1	10.5	3.5	1.5	2.2	2.3

Thermal Efficiency

	%						AAGR(%)				
	1990	2013	2020	2030	2040		1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**32**	**37**	**40**	**41**	**43**		**0.7**	**0.8**	**0.5**	**0.3**	**0.5**
Coal	31	35	37	39	40		0.5	0.6	0.6	0.3	0.5
Oil	30	33	33	33	33		0.4	0.0	0.0	0.0	0.0
Natural gas	35	40	43	45	46		0.6	1.0	0.4	0.3	0.5

CO_2 emissions

	Mt-C										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**13.60**	**51.42**	**69.17**	**92.05**	**118.62**	**100**	**100**	**100**	**100**	**100**	**6.0**	**4.3**	**2.9**	**2.6**	**3.1**
Coal	1.40	15.51	21.56	27.74	34.43	10.3	30.2	31.2	30.1	29.0	11.0	4.8	2.6	2.2	3.0
Oil	10.30	24.18	31.56	44.83	60.10	75.7	47.0	45.6	48.7	50.7	3.8	3.9	3.6	3.0	3.4
Natural Gas	1.90	11.73	16.05	19.48	24.09	14.0	22.8	23.2	21.2	20.3	8.2	4.6	2.0	2.1	2.7

Energy and economic indicators

						AAGR(%)				
	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
GDP (billions of 2005 US dollars)	57	208	285	415	571	5.8	4.6	3.8	3.2	3.8
Population (millions of people)	18	29	32	36	39	2.1	1.4	1.1	0.8	1.0
GDP per capita (thousands of 2005 USD/person)	3.1	7.1	8.8	11.5	14.7	3.6	3.2	2.7	2.4	2.7
Primary energy consumption per capita (toe/person)	1.1	2.5	3.1	3.8	4.5	3.7	3.0	2.1	1.7	2.2
Primary energy consumption per unit of GDP (toe/million 2005 US Dollars)	346	358	352	333	310	0.1	-0.3	-0.6	-0.7	-0.5
Final energy consumption per unit of GDP (toe/million 2005 US Dollars)	218	266	263	254	242	0.9	-0.2	-0.3	-0.5	-0.3
CO_2 emissions per unit of GDP (t-C/million 2005 US Dollars)	237	247	242	222	208	0.2	-0.3	-0.9	-0.6	-0.6
CO_2 emissions per unit of primary energy consumption (t-C/toe)	0.7	0.7	0.7	0.7	0.7	0.0	0.0	-0.3	0.1	-0.1
Automobile ownership volume (millions of vehicles)						-	-	-	-	-
Automobile ownership volume per capita (vehicles per person)	-	-	-	-	-	-	-	-	-	-

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Primary energy consumption

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**10.68**	**16.46**	**19.58**	**25.53**	**32.74**	**100**	**100**	**100**	**100**	**100**	**1.9**	**2.5**	**2.7**	**2.5**	**2.6**
Coal	0.07	0.37	1.43	2.03	2.89	0.6	2.3	7.3	7.9	8.8	7.7	21.2	3.6	3.6	7.9
Oil	0.73	2.77	4.02	6.38	9.38	6.8	16.8	20.6	25.0	28.7	6.0	5.5	4.7	3.9	4.6
Natural gas	0.76	1.74	1.99	2.86	4.43	7.1	10.6	10.1	11.2	13.5	3.7	1.9	3.7	4.5	3.5
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hydro	0.10	0.76	0.72	1.98	3.68	1.0	4.6	3.7	7.8	11.2	9.1	-0.8	10.7	6.4	6.0
Geothermal	-	-	-	0.15	0.15	0.0	0.0	0.0	0.6	0.5	-	-	-	0.0	-
Others	9.02	10.82	11.42	12.14	12.21	84.5	65.7	58.3	47.5	37.3	0.8	0.8	0.6	0.1	0.4
Biomass	9.02	10.82	11.11	11.82	11.82	84.5	65.7	56.8	46.3	36.1	0.8	0.4	0.6	0.0	0.3
Solar, Wind, Ocean	-	0.00	0.31	0.31	0.39	0.0	0.0	1.6	1.2	1.2	-	-	0.2	2.2	-
Biofuels	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Electricity	-	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-

Final energy demand

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**9.40**	**15.23**	**17.94**	**23.45**	**29.84**	**100**	**100**	**100**	**100**	**100**	**2.1**	**2.4**	**2.7**	**2.4**	**2.5**
Industry	0.39	1.89	3.02	4.94	7.27	4.2	12.4	16.8	21.1	24.4	7.1	6.9	5.1	3.9	5.1
Transportation	0.44	1.37	2.26	4.00	6.34	4.7	9.0	12.6	17.1	21.3	5.0	7.4	5.9	4.7	5.8
Others	8.47	11.73	12.28	13.81	15.07	90.1	77.0	68.5	58.9	50.5	1.4	0.7	1.2	0.9	0.9
Non-energy	0.09	0.24	0.37	0.69	1.16	1.0	1.6	2.1	2.9	3.9	4.2	6.3	6.4	5.3	6.0
Total	**9.40**	**15.23**	**17.94**	**23.45**	**29.84**	**100**	**100**	**100**	**100**	**100**	**2.1**	**2.4**	**2.7**	**2.4**	**2.5**
Coal	0.05	0.25	0.40	0.62	0.87	0.5	1.6	2.2	2.7	2.9	7.1	7.0	4.7	3.4	4.8
Oil	0.59	2.69	3.92	6.27	9.28	6.2	17.7	21.9	26.8	31.1	6.9	5.5	4.8	4.0	4.7
Natural gas	0.23	0.77	1.16	1.90	2.83	2.4	5.0	6.5	8.1	9.5	5.5	6.1	5.0	4.1	5.0
Electricity	0.15	0.75	1.39	2.88	5.09	1.6	4.9	7.8	12.3	17.1	7.3	9.2	7.5	5.9	7.4
Heat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	8.39	10.78	11.07	11.78	11.77	89.2	70.8	61.7	50.2	39.4	1.1	0.4	0.6	0.0	0.3

Power generation Output

	TWh										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**2.48**	**11.89**	**19.04**	**38.02**	**65.03**	**100**	**100**	**100**	**100**	**100**	**7.1**	**7.0**	**7.2**	**5.5**	**6.5**
Coal	0.04	0.51	4.42	6.07	9.54	1.6	4.3	23.2	16.0	14.7	11.7	36.0	3.2	4.6	11.4
Oil	0.27	0.06	0.15	0.15	0.15	10.9	0.5	0.8	0.4	0.2	-6.7	15.7	0.0	0.0	3.8
Natural gas	0.97	2.44	2.48	3.28	6.25	39.3	20.5	13.0	8.6	9.6	4.1	0.2	2.8	6.7	3.5
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hydro	1.19	8.88	8.37	23.08	42.75	48.1	74.7	43.9	60.7	65.7	9.1	-0.8	10.7	6.4	6.0
Geothermal	-	-	0.00	1.75	1.75	0.0	0.0	0.0	4.6	2.7	-	-	-	0.0	-
Others	-	-	3.62	3.68	4.59	0.0	0.0	19.0	9.7	7.1	-	-	0.2	2.2	-

Power generation Input

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**0.51**	**0.90**	**1.67**	**2.16**	**3.40**	**100**	**100**	**100**	**100**	**100**	**2.5**	**9.3**	**2.6**	**4.6**	**5.1**
Coal	0.01	0.12	1.03	1.40	2.02	2.4	13.9	61.5	64.9	59.5	10.7	35.2	3.1	3.7	10.9
Oil	0.06	0.01	0.04	0.04	0.04	12.5	1.6	2.3	1.8	1.1	-6.4	15.7	0.0	0.0	3.8
Natural gas	0.43	0.76	0.60	0.72	1.34	85.1	84.5	36.1	33.4	39.3	2.5	-3.2	1.8	6.4	2.1

Thermal Efficiency

	%										AAGR(%)				
	1990	2013	2020	2030	2040						1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**22**	**29**	**36**	**38**	**40**						**1.3**	**3.3**	**0.4**	**0.7**	**1.2**
Coal	29	35	37	37	41						0.9	0.6	0.1	0.9	0.5
Oil	36	34	34	34	34						-0.3	0.0	0.0	0.0	0.0
Natural gas	19	28	35	39	40						1.6	3.5	1.0	0.3	1.4

CO_2 emissions

	Mt-C										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**1.1**	**3.7**	**6.0**	**9.0**	**13.2**	**100**	**100**	**100**	**100**	**100**	**5.3**	**7.1**	**4.2**	**3.9**	**4.8**
Coal	0.1	0.4	1.5	2.2	3.1	8.9	10.9	25.9	24.5	23.8	6.2	21.2	3.6	3.6	7.9
Oil	0.6	2.2	3.2	5.1	7.5	50.0	60.0	54.0	56.9	56.9	6.2	5.5	4.7	3.9	4.6
Natural Gas	0.5	1.1	1.2	1.7	2.5	41.1	29.1	20.1	18.6	19.3	3.7	1.6	3.4	4.3	3.2

Energy and economic indicators

						AAGR(%)				
	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
GDP (billions of 2005 US dollars)	3.3	24.9	41.7	76.8	125.2	9.2	7.6	6.3	5.0	6.2
Population (millions of people)	42	53	57	63	66	1.0	1.1	1.0	0.5	0.8
GDP per capita (thousands of 2005 USD/person)	0.08	0.47	0.7	1.2	1.9	8.1	6.5	5.3	4.5	5.3
Primary energy consumption per capita (toe/person)	0.25	0.31	0.34	0.41	0.50	0.9	1.4	1.7	2.0	1.7
Primary energy consumption per unit of GDP (toe/million 2005 US Dollars)	3,243	660	469	332	262	-6.7	-4.8	-3.4	-2.4	-3.4
Final energy consumption per unit of GDP (toe/million 2005 US Dollars)	2,854	611	430	305	238	-6.5	-4.9	-3.4	-2.4	-3.4
CO2 emissions per unit of GDP (t-C/million 2005 US Dollars)	340	148	143	116	105	-3.6	-0.5	-2.0	-1.0	-1.3
CO2 emissions per unit of primary energy consumption (t-C/toe)	0.10	0.22	0.30	0.35	0.40	3.4	4.5	1.4	1.4	2.2
Automobile ownership volume (millions of vehicles)						-	-	-	-	-
Automobile ownership volume per capita (vehicles per person)	-	-	-	-	-	-	-	-	-	-

MYANMAR [APS]

Primary energy consumption

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**10.68**	**16.46**	**17.88**	**22.82**	**28.93**	**100**	**100**	**100**	**100**	**100**	**1.9**	**1.2**	**2.5**	**2.4**	**2.1**
Coal	0.07	0.37	1.25	1.53	2.22	0.6	2.3	7.0	6.7	7.7	7.7	18.9	2.1	3.8	6.8
Oil	0.73	2.77	3.42	5.36	7.82	6.8	16.8	19.2	23.5	27.0	6.0	3.1	4.6	3.9	3.9
Natural gas	0.76	1.74	1.72	2.37	3.69	7.1	10.6	9.6	10.4	12.7	3.7	-0.2	3.3	4.5	2.8
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hydro	0.10	0.76	0.57	1.28	2.57	1.0	4.6	3.2	5.6	8.9	9.1	-4.1	8.4	7.3	4.6
Geothermal	-	-	-	0.15	0.15	0.0	0.0	0.0	0.7	0.5	-	-	-	0.0	-
Others	9.02	10.82	10.92	12.13	12.48	84.5	65.7	61.1	53.2	43.1	0.8	0.1	1.1	0.3	0.5
Biomass	9.02	10.82	10.56	11.23	11.23	84.5	65.7	59.0	49.2	38.8	0.8	-0.3	0.6	0.0	0.1
Solar, Wind, Ocean	-	0.00	0.30	0.76	1.01	0.0	0.0	1.7	3.3	3.5	-	-	9.7	2.9	-
Biofuels	-	0.00	0.06	0.14	0.24	0.0	0.0	0.3	0.6	0.8	-	-	8.5	5.5	-
Electricity	-	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-

Final energy demand

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**9.40**	**15.23**	**16.44**	**21.24**	**26.75**	**100**	**100**	**100**	**100**	**100**	**2.1**	**1.1**	**2.6**	**2.3**	**2.1**
Industry	0.39	1.89	2.60	4.24	6.22	4.2	12.4	15.8	20.0	23.2	7.1	4.6	5.0	3.9	4.5
Transportation	0.44	1.37	1.95	3.44	5.43	4.7	9.0	11.9	16.2	20.3	5.0	5.2	5.8	4.7	5.2
Others	8.47	11.73	11.51	12.88	13.95	90.1	77.0	70.0	60.6	52.2	1.4	-0.3	1.1	0.8	0.6
Non-energy	0.09	0.24	0.37	0.69	1.16	1.0	1.6	2.3	3.2	4.3	4.2	6.3	6.4	5.3	6.0
Total	**9.40**	**15.23**	**16.44**	**21.24**	**26.75**	**100**	**100**	**100**	**100**	**100**	**2.1**	**1.1**	**2.6**	**2.3**	**2.1**
Coal	0.05	0.25	0.34	0.53	0.74	0.5	1.6	2.0	2.5	2.8	7.1	4.6	4.7	3.4	4.2
Oil	0.59	2.69	3.32	5.25	7.72	6.2	17.7	20.2	24.7	28.9	6.9	3.1	4.7	3.9	4.0
Natural gas	0.23	0.77	1.02	1.69	2.54	2.4	5.0	6.2	8.0	9.5	5.5	4.2	5.2	4.2	4.5
Electricity	0.15	0.75	1.18	2.45	4.33	1.6	4.9	7.2	11.5	16.2	7.3	6.7	7.5	5.9	6.7
Heat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	8.39	10.78	10.57	11.32	11.42	89.2	70.8	64.3	53.3	42.7	1.1	-0.3	0.7	0.1	0.2

Power generation Output

	TWh										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**2.48**	**11.89**	**16.18**	**32.32**	**55.28**	**100**	**100**	**100**	**100**	**100**	**7.1**	**4.5**	**7.2**	**5.5**	**5.9**
Coal	0.04	0.51	3.89	4.56	7.23	1.6	4.3	24.0	14.1	13.1	11.7	33.5	1.6	4.7	10.3
Oil	0.27	0.06	0.15	0.15	0.15	10.9	0.5	0.9	0.5	0.3	-6.7	15.7	0.0	0.0	3.8
Natural gas	0.97	2.44	1.97	2.11	4.38	39.3	20.5	12.2	6.5	7.9	4.1	-3.0	0.7	7.6	2.2
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hydro	1.19	8.88	6.63	14.86	29.94	48.1	74.7	41.0	46.0	54.2	9.1	-4.1	8.4	7.3	4.6
Geothermal	-	-	0.00	1.75	1.75	0.0	0.0	0.0	5.4	3.2	-	-	-	0.0	-
Others	-	-	3.54	8.87	11.82	0.0	0.0	21.9	27.5	21.4	-	-	9.6	2.9	-

Power generation Input

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**0.51**	**0.90**	**1.43**	**1.50**	**2.41**	**100**	**100**	**100**	**100**	**100**	**2.5**	**6.9**	**0.5**	**4.9**	**3.7**
Coal	0.01	0.12	0.91	1.00	1.48	2.4	13.9	63.7	67.1	61.3	10.7	32.8	1.0	3.9	9.6
Oil	0.06	0.01	0.04	0.04	0.04	12.5	1.6	2.7	2.6	1.6	-6.4	15.7	0.0	0.0	3.8
Natural gas	0.43	0.76	0.48	0.45	0.89	85.1	84.5	33.6	30.3	37.1	2.5	-6.3	-0.6	7.0	0.6

Thermal Efficiency

	%						AAGR(%)				
	1990	2013	2020	2030	2040		1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**22**	**29**	**36**	**39**	**42**		**1.3**	**3.3**	**0.8**	**0.7**	**1.4**
Coal	29	35	37	39	42		0.9	0.5	0.6	0.7	0.6
Oil	36	34	34	34	34		-0.3	0.0	0.0	0.0	0.0
Natural gas	19	28	35	40	42		1.6	3.5	1.3	0.5	1.6

CO_2 emissions

	Mt-C										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**1.12**	**3.68**	**5.10**	**7.27**	**10.68**	**100**	**100**	**100**	**100**	**100**	**5.3**	**4.7**	**3.6**	**3.9**	**4.0**
Coal	0.10	0.40	1.35	1.66	2.40	8.9	10.9	26.4	22.8	22.4	6.2	18.9	2.1	3.8	6.8
Oil	0.56	2.21	2.72	4.26	6.22	50.0	60.0	53.5	58.5	58.2	6.2	3.0	4.6	3.9	3.9
Natural Gas	0.46	1.07	1.02	1.36	2.07	41.1	29.1	20.1	18.6	19.3	3.7	-0.6	2.8	4.3	2.5

Energy and economic indicators

						AAGR(%)				
	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
GDP (billions of 2005 US dollars)	3.3	24.9	41.7	76.8	125.2	9.2	7.6	6.3	5.0	6.2
Population (millions of people)	42	53	57	63	66	1.0	1.1	1.0	0.5	0.8
GDP per capita (thousands of 2005 USD/person)	0.08	0.47	0.73	1.22	1.90	8.1	6.5	5.3	4.5	5.3
Primary energy consumption per capita (toe/person)	0.25	0.31	0.31	0.36	0.44	0.9	0.1	1.5	1.9	1.3
Primary energy consumption per unit of GDP (toe/million 2005 US Dollars)	3,243	660	429	297	231	-6.7	-6.0	-3.6	-2.5	-3.8
Final energy consumption per unit of GDP (toe/million 2005 US Dollars)	2,854	611	394	276	214	-6.5	-6.1	-3.5	-2.5	-3.8
CO_2 emissions per unit of GDP (t-C/million 2005 US Dollars)	340	148	122	95	85	-3.6	-2.7	-2.5	-1.0	-2.0
CO_2 emissions per unit of primary energy consumption (t-C/toe)	0.10	0.22	0.29	0.32	0.37	3.4	3.5	1.1	1.5	1.9
Automobile ownership volume (millions of vehicles)						-	-	-	-	-
Automobile ownership volume per capita (vehicles per person)	-	-	-	-	-	-	-	-	-	-

New Zealand [BAU]

Primary energy consumption

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**12.83**	**19.51**	**23.12**	**24.08**	**24.67**	**100**	**100**	**100**	**100**	**100**	**1.8**	**2.5**	**0.4**	**0.2**	**0.9**
Coal	1.18	1.56	0.97	0.97	0.91	9.2	8.0	4.2	4.0	3.7	1.2	-6.6	0.0	-0.6	-2.0
Oil	3.51	6.39	6.95	7.22	7.31	27.4	32.7	30.1	30.0	29.6	2.6	1.2	0.4	0.1	0.5
Natural gas	3.87	3.98	4.17	4.09	3.74	30.2	20.4	18.1	17.0	15.2	0.1	0.7	-0.2	-0.9	-0.2
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hydro	1.99	1.98	2.10	2.24	2.35	15.5	10.2	9.1	9.3	9.5	0.0	0.8	0.6	0.5	0.6
Geothermal	1.48	4.24	7.27	7.54	7.95	11.5	21.8	31.5	31.3	32.2	4.7	8.0	0.4	0.5	2.4
Others	0.80	1.36	1.66	2.04	2.41	6.2	7.0	7.2	8.5	9.8	2.3	2.9	2.1	1.7	2.1
Biomass	0.75	1.15	1.36	1.62	1.90	5.9	5.9	5.9	6.7	7.7	1.8	2.4	1.7	1.6	1.9
Solar, Wind, Ocean	0.04	0.21	0.28	0.40	0.49	0.3	1.1	1.2	1.7	2.0	6.9	4.3	3.7	2.2	3.3
Biofuels	0.00	0.00	0.02	0.02	0.02	0.0	0.0	0.1	0.1	0.1	-	29.0	0.5	0.2	7.1
Electricit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Final energy demand

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**9.72**	**13.23**	**14.75**	**15.43**	**15.65**	**100**	**100**	**100**	**100**	**100**	**1.4**	**1.6**	**0.5**	**0.1**	**0.6**
Industry	3.60	4.09	4.402	4.60	4.67	37.0	31.0	29.8	29.8	29.9	0.6	1.0	0.4	0.2	0.5
Transportation	2.96	4.58	5.02	5.17	5.19	30.4	34.7	34.0	33.5	33.2	1.9	1.3	0.3	0.0	0.5
Others	2.54	3.37	3.94	4.46	4.89	26.2	25.5	26.7	28.9	31.2	1.2	2.2	1.3	0.9	1.4
Non-energy	0.62	1.17	1.40	1.20	0.89	6.4	8.9	9.5	7.8	5.7	2.8	2.5	-1.5	-2.9	-1.0
Total	**9.72**	**13.23**	**14.75**	**15.43**	**15.65**	**100**	**100**	**100**	**100**	**100**	**1.4**	**1.6**	**0.5**	**0.1**	**0.6**
Coal	0.67	0.62	0.69	0.69	0.63	6.9	4.7	4.7	4.4	4.0	-0.4	1.4	0.0	-0.8	0.1
Oil	4.03	5.93	6.48	6.75	6.83	41.4	44.8	43.9	43.7	43.7	1.7	1.3	0.4	0.1	0.5
Natural gas	1.80	2.16	2.52	2.35	1.99	18.5	16.3	17.1	15.2	12.7	0.8	2.2	-0.7	-1.6	-0.3
Electricity	2.43	3.26	3.61	3.96	4.25	25.0	24.6	24.5	25.7	27.2	1.3	1.5	0.9	0.7	1.0
Heat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	0.79	1.26	1.46	1.69	1.94	8.1	9.5	9.9	11.0	12.4	2.1	2.1	1.5	1.4	1.6

Power generation Output

	TWh										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**32.27**	**43.26**	**47.75**	**52.27**	**56.03**	**100**	**100**	**100**	**100**	**100**	**1.3**	**1.4**	**0.9**	**0.7**	**1.0**
Coal	0.66	2.40	-	-	-	2.1	5.5	-	-	-	5.7	-100.0	-	-	-100.0
Oil	0.01	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.0	-5.1	0.0	0.0	0.0	0.0
Natural gas	5.71	8.70	8.40	9.35	9.85	17.7	20.1	17.6	17.9	17.6	1.8	-0.5	1.1	0.5	0.5
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hydro	23.18	23.04	24.37	26.00	27.33	71.9	53.3	51.0	49.7	48.8	0.0	0.8	0.6	0.5	0.6
Geothermal	2.13	6.42	11.27	11.65	12.28	6.6	14.8	23.6	22.3	21.9	4.9	8.4	0.3	0.5	2.4
Others	0.57	2.70	3.71	5.27	6.58	1.8	6.2	7.8	10.1	11.7	7.0	4.7	3.6	2.2	3.4

Power generation Input

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**1.41**	**2.11**	**1.43**	**1.51**	**1.52**	**100**	**100**	**100**	**100**	**100**	**1.8**	**-5.4**	**0.6**	**0.1**	**-1.2**
Coal	0.17	0.58	-	-	-	11.9	27.5	-	-	-	5.5	-100.0	-	-	-100.0
Oil	0.01	0.00	-	-	-	0.4	0.0	-	-	-	-7.5	-100.0	-	-	-100.0
Natural gas	1.24	1.53	1.43	1.51	1.52	87.7	72.5	100.0	100.0	100.0	0.9	-1.0	0.6	0.1	0.0

Thermal Efficiency

	%						AAGR(%)				
	1990	2013	2020	2030	2040		1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**39**	**45**	**51**	**53**	**56**		**0.7**	**1.6**	**0.5**	**0.5**	**0.8**
Coal	34	36	-	-	-		0.2	-	-	-	-
Oil	14	25	-	-	-		2.6	-	-	-	-
Natural gas	40	49	51	53	56		0.9	0.5	0.5	0.5	0.5

CO_2 emissions

	Mt-C										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**6.24**	**8.76**	**8.57**	**8.87**	**8.86**	**100**	**100**	**100**	**100**	**100**	**1.5**	**-0.3**	**0.3**	**0.0**	**0.0**
Coal	1.28	1.68	1.05	1.05	0.99	20.5	19.2	12.2	11.8	11.1	1.2	-6.6	0.0	-0.6	-2.0
Oil	2.67	5.08	5.53	5.75	5.83	42.8	57.9	64.5	64.8	65.8	2.8	1.2	0.4	0.1	0.5
Natural Gas	2.29	2.00	2.00	2.07	2.04	36.7	22.9	23.3	23.4	23.1	-0.6	0.0	0.4	-0.1	0.1

Energy and economic indicators

						AAGR(%)				
	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
GDP (billions of 2005 US dollars)	65.5	120.1	145.2	176.5	205.8	2.7	2.7	2.0	1.5	2.0
Population (millions of people)	3.3	4.4	4.7	5.1	5.4	1.3	0.8	0.8	0.6	0.7
GDP per capita (thousands of 2005 USD/person)	19.7	27.0	30.9	34.8	38.4	1.4	1.9	1.2	1.0	1.3
Primary energy consumption per capita (toe/person)	3.9	4.4	4.9	4.7	4.6	0.6	1.6	-0.4	-0.3	0.2
Primary energy consumption per unit of GDP (toe/million 2005 US Dollars)	196	162	159	136	120	-0.8	-0.3	-1.5	-1.3	-1.1
Final energy consumption per unit of GDP (toe/million 2005 US Dollars)	148	110	102	87	76	-1.3	-1.1	-1.5	-1.4	-1.4
CO_2 emissions per unit of GDP (t-C/million 2005 US Dollars)	95	73	59	50	43	-1.2	-3.0	-1.6	-1.5	-1.9
CO_2 emissions per unit of primary energy consumption (t-C/toe)	0.5	0.4	0.4	0.4	0.4	-0.3	-2.7	-0.1	-0.3	-0.8
Automobile ownership volume (millions of vehicles)	1.8	3.2	3.7	4.0	4.3	2.6	1.8	1.0	0.6	1.0
Automobile ownership volume per capita (vehicles per person)	0.5	0.7	0.8	0.8	0.8	1.3	0.9	0.2	0.0	0.3

New Zealand [APS]

Primary energy consumption

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**12.83**	**19.51**	**22.86**	**23.75**	**24.00**	**100**	**100**	**100**	**100**	**100**	**1.8**	**2.3**	**0.4**	**0.1**	**0.8**
Coal	1.18	1.56	0.95	0.92	0.84	9.2	8.0	4.1	3.9	3.5	1.2	-6.9	-0.3	-0.9	-2.3
Oil	3.51	6.39	6.68	6.63	6.41	27.4	32.7	29.2	27.9	26.7	2.6	0.6	-0.1	-0.3	0.0
Natural gas	3.87	3.98	3.78	3.07	2.41	30.2	20.4	16.5	12.9	10.0	0.1	-0.7	-2.1	-2.4	-1.8
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hydro	1.99	1.98	1.97	1.86	1.68	15.5	10.2	8.6	7.8	7.0	0.0	-0.1	-0.6	-1.0	-0.6
Geothermal	1.48	4.24	7.80	9.16	10.18	11.5	21.8	34.1	38.6	42.4	4.7	9.1	1.6	1.1	3.3
Others	0.80	1.36	1.69	2.11	2.49	6.2	7.0	7.4	8.9	10.4	2.3	3.2	2.2	1.7	2.3
Biomass	0.75	1.15	1.36	1.57	1.81	5.9	5.9	5.9	6.6	7.5	1.8	2.4	1.5	1.4	1.7
Solar, Wind, Ocean	0.04	0.21	0.31	0.52	0.66	0.3	1.1	1.4	2.2	2.7	6.9	6.2	5.1	2.5	4.4
Biofuels	-	0.00	0.02	0.02	0.02	-	0.0	0.1	0.1	0.1	-	26.1	0.6	0.2	6.5
Electricit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Final energy demand

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**9.72**	**13.23**	**14.22**	**14.12**	**13.55**	**100**	**100**	**100**	**100**	**100**	**1.4**	**1.0**	**-0.1**	**-0.4**	**0.1**
Industry	3.60	4.09	4.30	4.34	4.27	37.0	31.0	30.2	30.7	31.5	0.6	0.7	0.1	-0.2	0.2
Transportation	2.96	4.58	4.88	4.83	4.64	30.4	34.7	34.3	34.2	34.2	1.9	0.9	-0.1	-0.4	0.0
Others	2.54	3.37	3.65	3.75	3.75	26.2	25.5	25.6	26.6	27.7	1.2	1.1	0.3	0.0	0.4
Non-energy	0.62	1.17	1.40	1.20	0.89	6.4	8.9	9.8	8.5	6.6	2.8	2.5	-1.5	-2.9	-1.0
Total	**9.72**	**13.23**	**14.22**	**14.12**	**13.55**	**100**	**100**	**100**	**100**	**100**	**1.4**	**1.0**	**-0.1**	**-0.4**	**0.1**
Coal	0.67	0.62	0.67	0.64	0.56	6.9	4.7	4.7	4.5	4.1	-0.4	1.0	-0.4	-1.3	-0.4
Oil	4.03	5.93	6.21	6.17	5.94	41.4	44.8	43.7	43.7	43.8	1.7	0.7	-0.1	-0.4	0.0
Natural gas	1.80	2.16	2.51	2.26	1.82	18.5	16.3	17.6	16.0	13.4	0.8	2.2	-1.1	-2.1	-0.6
Electricity	2.43	3.26	3.44	3.52	3.55	25.0	24.6	24.2	24.9	26.2	1.3	0.8	0.2	0.1	0.3
Heat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	0.79	1.26	1.40	1.54	1.68	8.1	9.5	9.8	10.9	12.4	2.1	1.5	1.0	0.9	1.1

Power generation Output

	TWh										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**32.27**	**43.26**	**45.48**	**46.57**	**46.91**	**100**	**100**	**100**	**100**	**100**	**1.3**	**0.7**	**0.2**	**0.1**	**0.3**
Coal	0.66	2.40	0.00	0.00	0.00	2.1	5.5	0.0	0.0	0.0	5.7	-100.0	-	-	-100.0
Oil	0.01	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.0	-5.1	0.0	0.0	0.0	0.0
Natural gas	5.71	8.70	6.14	3.63	2.34	17.7	20.1	13.5	7.8	5.0	1.8	-4.9	-5.1	-4.3	-4.7
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hydro	23.18	23.04	22.88	21.65	19.58	71.9	53.3	50.3	46.5	41.7	0.0	-0.1	-0.6	-1.0	-0.6
Geothermal	2.13	6.42	12.13	14.30	15.94	6.6	14.8	26.7	30.7	34.0	4.9	9.5	1.7	1.1	3.4
Others	0.57	2.70	4.32	6.98	9.05	1.8	6.2	9.5	15.0	19.3	7.0	7.0	4.9	2.6	4.6

Power generation Input

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**1.41**	**2.11**	**1.04**	**0.59**	**0.36**	**100**	**100**	**100**	**100**	**100**	**1.8**	**-9.6**	**-5.6**	**-4.7**	**-6.3**
Coal	0.17	0.58	-	-	-	11.9	27.5	-	-	-	5.5	-100.0	-	-	-100.0
Oil	0.01	0.00	-	-	-	0.4	0.0	-	-	-	-7.5	-100.0	-	-	-100.0
Natural gas	1.24	1.53	1.04	0.59	0.36	87.7	72.5	100.0	100.0	100.0	0.9	-5.3	-5.6	-4.7	-5.2

Thermal Efficiency

	%					AAGR(%)				
	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**39**	**45**	**51**	**53**	**56**	**0.7**	**1.6**	**0.5**	**0.5**	**0.8**
Coal	34	36	-	-	-	0.2	-	-	-	-
Oil	14	25	-	-	-	2.6	-	-	-	-
Natural gas	40	49	51	53	56	0.9	0.5	0.5	0.5	0.5

CO_2 emissions

	Mt-C										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**6.24**	**8.76**	**8.08**	**7.67**	**7.17**	**100**	**100**	**100**	**100**	**100**	**1.5**	**-1.2**	**-0.5**	**-0.7**	**-0.7**
Coal	1.28	1.68	1.02	0.99	0.91	20.5	19.2	12.7	12.9	12.7	1.2	-6.9	-0.3	-0.9	-2.3
Oil	2.67	5.08	5.31	5.26	5.07	42.8	57.9	65.7	68.6	70.7	2.8	0.6	-0.1	-0.4	0.0
Natural Gas	2.29	2.00	1.74	1.42	1.19	36.7	22.9	21.6	18.5	16.6	-0.6	-2.0	-2.0	-1.7	-1.9

Energy and economic indicators

						AAGR(%)				
	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
GDP (billions of 2005 US dollars)	65.5	120.1	145.2	176.5	205.8	2.7	2.7	2.0	1.5	2.0
Population (millions of people)	3.3	4.4	4.7	5.1	5.4	1.3	0.8	0.8	0.6	0.7
GDP per capita (thousands of 2005 USD/person)	19.7	27.0	30.9	34.8	38.4	1.4	1.9	1.2	1.0	1.3
Primary energy consumption per capita (toe/person)	3.9	4.4	4.9	4.7	4.5	0.6	1.5	-0.4	-0.4	0.1
Primary energy consumption per unit of GDP (toe/million 2005 US Dollars)	196	162	157	135	117	-0.8	-0.4	-1.6	-1.4	-1.2
Final energy consumption per unit of GDP (toe/million 2005 US Dollars)	148	110	98	80	66	-1.3	-1.7	-2.0	-1.9	-1.9
CO_2 emissions per unit of GDP (t-C/million 2005 US Dollars)	95	73	56	43	35	-1.2	-3.8	-2.4	-2.2	-2.7
CO_2 emissions per unit of primary energy consumption (t-C/toe)	0.49	0.45	0.35	0.32	0.30	-0.3	-3.4	-0.9	-0.8	-1.5
Automobile ownership volume (millions of vehicles)	1.8	3.2	3.7	4.0	4.3	2.6	1.8	1.0	0.6	1.0
Automobile ownership volume per capita (vehicles per person)	0.5	0.7	0.8	0.8	0.8	1.3	0.9	0.2	0.0	0.3

Philippines [BAU]

Primary Energy consumption	MTOE					%					AAGR(%)			
Consumption	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2040	2013-2040
	28.71	**44.46**	**54.80**	**77.99**	**116.82**	**100**	**100**	**100**	**100**	**100**	**1.9**	**3.0**	**3.9**	**3.6**
Coal	1.53	10.00	14.60	25.93	45.07	5.3	22.5	26.6	33.2	38.6	8.5	5.6	5.8	5.7
Oil	10.84	14.05	17.93	25.40	36.28	37.8	31.6	32.7	32.6	31.1	1.1	3.5	3.6	3.6
Natural gas	0.00	3.06	3.76	6.80	12.80	0.0	6.9	6.9	8.7	11.0	-	3.0	6.3	5.4
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hydro	0.52	0.86	1.09	1.21	1.27	1.8	1.9	2.0	1.6	1.1	2.2	3.4	0.8	1.5
Geothermal	4.70	8.26	10.67	11.40	13.02	16.4	18.6	19.5	14.6	11.1	2.5	3.7	1.0	1.7
Others	11.12	8.23	6.75	7.25	8.38	38.7	18.5	12.3	9.3	7.2	-1.3	-2.8	1.1	0.1
Biomass	11.12	7.87	5.95	6.16	6.82	38.7	17.7	10.9	7.9	5.8	-1.5	-3.9	0.7	-0.5
Solar, Wind, Ocean	0.00	0.01	0.21	0.24	0.31	0.0	0.0	0.4	0.3	0.3	-	54.5	2.0	13.6
Biofuels	0.00	0.35	0.59	0.85	1.25	0.0	0.8	1.1	1.1	1.1	-	7.7	3.8	4.8
Electricity	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Final Energy Demand	MTOE										AAGR(%)			
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2040	2013-2040
	19.65	**25.87**	**32.83**	**48.81**	**76.28**	**100**	**100**	**100**	**100**	**100**	**1.2**	**3.5**	**4.3**	**4.1**
Industry	4.66	6.84	10.35	17.88	32.58	23.7	26.4	31.5	36.6	42.7	1.7	6.1	5.9	6.0
Transportation	4.52	8.78	11.15	15.74	22.48	23.0	33.9	34.0	32.3	29.5	2.9	3.5	3.6	3.5
Others	10.25	9.83	10.85	14.62	20.52	52.2	38.0	33.0	29.9	26.9	-0.2	1.4	3.2	2.8
Non-energy	0.23	0.43	0.48	0.57	0.70	1.2	1.7	1.5	1.2	0.9	2.8	1.6	1.9	1.8
	19.65	**25.87**	**32.83**	**48.81**	**76.28**	**100**	**100**	**100**	**100**	**100**	**1.2**	**3.5**	**4.3**	**4.1**
Coal	0.61	2.20	3.67	7.79	16.7	3.1	8.5	11.2	16.0	21.9	5.7	7.6	7.9	7.8
Oil	8.15	12.24	16.29	23.36	34.2	41.5	47.3	49.6	47.9	44.8	1.8	4.2	3.8	3.9
Natural gas	0.00	0.06	0.09	0.13	0.2	0.0	0.2	0.3	0.3	0.2	-	4.8	3.5	3.8
Electricity	1.82	5.29	7.49	11.83	18.6	9.3	20.5	22.8	24.2	24.4	4.7	5.1	4.6	4.8
Heat	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	9.07	6.08	5.29	5.70	6.6	46.1	23.5	16.1	11.7	8.7	-1.7	-2.0	1.1	0.3

Power generation output	TWh										AAGR(%)			
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2040	2013-2040
	26.33	**75.27**	**101.42**	**154.09**	**237.58**	**100**	**100**	**100**	**100**	**100**	**4.7**	**4.4**	**4.3**	**4.3**
Coal	1.93	32.08	44.93	74.52	116.5	7.3	42.6	44.3	48.4	49.1	13.0	4.9	4.9	4.9
Oil	12.43	4.47	4.80	6.46	6.7	47.2	5.9	4.7	4.2	2.8	-4.4	1.0	1.7	1.5
Natural gas	0.00	18.79	23.03	41.89	79.3	0.0	25.0	22.7	27.2	33.4	-	2.9	6.4	5.5
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hydro	6.06	10.02	12.73	14.02	14.8	23.0	13.3	12.5	9.1	6.2	2.2	3.5	0.7	1.4
Geothermal	5.47	9.61	12.41	13.26	15.1	20.8	12.8	12.2	8.6	6.4	2.5	3.7	1.0	1.7
Others	0.43	0.30	3.52	3.94	5.2	1.6	0.4	3.5	2.6	2.2	-1.6	42.2	1.9	11.1

Power generation Input	MTOE										AAGR(%)			
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2040	2013-2040
	2.69	**11.87**	**15.75**	**26.35**	**42.58**	**100**	**100**	**100**	**100**	**100**	**6.7**	**4.1**	**5.1**	**4.8**
Coal	0.51	7.81	10.93	18.13	28.4	18.9	65.8	69.4	68.8	66.6	12.6	4.9	4.9	4.9
Oil	2.18	1.07	1.15	1.55	1.6	81.1	9.0	7.3	5.9	3.8	-3.0	1.0	1.7	1.5
Natural gas	0.00	2.99	3.67	6.67	12.6	0.0	25.2	23.3	25.3	29.6	-	2.9	6.4	5.5

Thermal Efficiency	%						AAGR(%)			
	1990	2013	2020	2030	2040		1990-2013	2013-2020	2020-2040	2013-2040
	45.9	**40.1**	**39.7**	**40.1**	**40.9**		**-0.6**	**-0.1**	**0.1**	**0.1**
Coal	32.7	35.3	35.3	35.3	35.3		0.3	0.0	0.0	0.0
Oil	49.0	35.9	35.9	35.9	35.9		-1.3	0.0	0.0	0.0
Natural Gas	-	54.0	54.0	54.0	54.0		-	0.0	0.0	0.0

CO_2 Emission	Mt-C										AAGR(%)			
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2040	2013-2040
	10.2	**44.3**	**62.3**	**99.7**	**167.4**	**100**	**100**	**100**	**100**	**100**	**6.6**	**5.0**	**5.1**	**5.0**
Coal	1.4	8.3	14.2	30.8	66.4	13.4	18.8	22.9	30.8	39.7	8.2	8.0	8.0	8.0
Oil	8.8	35.9	47.9	68.6	100.6	86.6	80.9	76.8	68.8	60.1	6.3	4.2	3.8	3.9
Natural Gas	0.0	0.2	0.2	0.3	0.4	0.0	0.3	0.3	0.3	0.2	-	4.9	3.5	3.8

						AAGR(%)			
	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2040	2013-2040
GDP (billions of 2005 US dollars)	62.1	155.6	236.0	418.2	714.4	4.1	6.1	5.7	5.8
Population (millions of people)	61.9	98.2	112.3	129.1	146.9	2.0	1.9	1.3	1.5
GDP per capita (thousands of 2005 USD/person)	1.00	1.58	2.1	3.2	4.9	2.0	4.1	4.3	4.2
Primary energy consumption per capita (toe/person)	0.46	0.45	0.49	0.60	0.80	-0.1	1.1	2.5	2.1
Primary energy consumption per unit of GDP (toe/million 2005 US Dollars)	462	286	232	186	164	-2.1	-2.9	-1.7	-2.0
Final energy consumption per unit of GDP (toe/million 2005 US Dollars)	316	166	139	117	107	-2.8	-2.5	-1.3	-1.6
CO_2 emissions per unit of GDP (t-C/million 2005 US Dollars)	164	285	264	238	234	2.4	-1.1	-0.6	-0.7
CO_2 emissions per unit of primary energy consumption (t-C/toe)	0.35	1.00	1.14	1.28	1.43	4.6	1.9	1.2	1.4
Automobile ownership volume (millions of vehicles)	1.22	3.44	4.72	7.60	12.60	4.6	4.6	5.0	4.9
Automobile ownership volume per capita (vehicles per person)	0.02	0.04	0.04	0.06	0.09	2.5	2.6	3.6	3.4

Philippines [APS]

Primary energy consumption	MTOE										AAGR(%)			
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2040	2013-2040
	28.71	**44.46**	**51.08**	**68.93**	**107.18**	**100**	**100**	**100**	**100**	**100**	**1.9**	**2.0**	**3.8**	**3.3**
Coal	1.53	10.00	10.70	15.75	27.30	5.3	22.5	20.9	22.8	25.5	8.5	1.0	4.8	3.8
Oil	10.84	14.05	16.83	21.47	29.35	37.8	31.6	32.9	31.1	27.4	1.1	2.6	2.8	2.8
Natural gas	-	3.06	2.31	4.87	9.66	-	6.9	4.5	7.1	9.0	-	-3.9	7.4	4.3
Nuclear	-	-	-	0.54	0.71	-	-	-	0.8	0.7	-	-	-	-
Hydro	0.52	0.86	2.56	2.89	2.71	1.8	1.9	5.0	4.2	2.5	2.2	16.9	0.3	4.3
Geothermal	4.70	8.26	11.82	15.63	28.67	16.4	18.6	23.1	22.7	26.7	2.5	5.3	4.5	4.7
Others	11.12	8.23	6.86	7.78	8.78	38.7	18.5	13.4	11.3	8.2	-1.3	-2.6	1.2	0.2
Biomass	11.12	7.87	5.94	6.39	7.10	38.7	17.7	11.6	9.3	6.6	-1.5	-3.9	0.9	-0.4
Solar, Wind, Ocean	-	0.01	0.36	0.67	0.67	-	0.0	0.7	1.0	0.6	-	66.9	3.2	16.9
Biofuels	-	0.35	0.56	0.72	1.01	-	0.8	1.1	1.0	0.9	-	6.9	3.0	4.0
Electricity	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Final energy demand	MTOE										AAGR(%)			
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2040	2013-2040
	19.65	**25.87**	**31.59**	**43.82**	**66.00**	**100**	**100**	**100**	**100**	**100**	**1.2**	**2.9**	**3.8**	**3.5**
Industry	4.66	6.84	10.06	16.71	30.05	23.7	26.4	31.8	38.1	45.5	1.7	5.7	5.6	5.6
Transportation	4.52	8.78	10.59	13.59	18.23	23.0	33.9	33.5	31.0	27.6	2.9	2.7	2.8	2.7
Others	10.25	9.83	10.46	12.95	17.03	52.2	38.0	33.1	29.6	25.8	-0.2	0.9	2.5	2.1
Non-energy	0.23	0.43	0.48	0.57	0.70	1.2	1.7	1.5	1.3	1.1	2.8	1.6	1.9	1.8
	19.65	**25.87**	**31.59**	**43.82**	**66.00**	**100**	**100**	**100**	**100**	**100**	**1.2**	**2.9**	**3.8**	**3.5**
Coal	0.61	2.20	3.67	7.79	16.7	3.1	8.5	11.6	17.8	25.3	5.7	7.6	7.9	7.8
Oil	8.15	12.24	15.36	19.93	27.5	41.5	47.3	48.6	45.5	41.6	1.8	3.3	2.9	3.0
Natural gas	0.00	0.06	0.17	0.32	0.4	0.0	0.2	0.5	0.7	0.6	-	15.0	4.2	6.9
Electricity	1.82	5.29	7.06	10.06	14.9	9.3	20.5	22.3	23.0	22.5	4.7	4.2	3.8	3.9
Heat	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	9.07	6.08	5.33	5.73	6.6	46.1	23.5	16.9	13.1	9.9	-1.7	-1.9	1.0	0.3

Power generation Output	TWh										AAGR(%)			
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2040	2013-2040
	26.33	**75.27**	**95.50**	**130.98**	**190.07**	**100**	**100**	**100**	**100**	**100**	**4.7**	**3.5**	**3.5**	**3.5**
Coal	1.93	32.08	29.44	33.30	44.36	7.3	42.6	30.8	25.4	23.3	13.0	-1.2	2.1	1.2
Oil	12.43	4.47	3.98	4.37	5.83	47.2	5.9	4.2	3.3	3.1	-4.4	-1.6	1.9	1.0
Natural gas	-	18.79	13.47	30.12	62.53	0.0	25.0	14.1	23.0	32.9	-	-4.6	8.0	4.6
Nuclear	-	-	-	2.05	2.74	-	-	-	1.6	1.4	-	-	-	-
Hydro	6.06	10.02	29.81	33.63	31.51	23.0	13.3	31.2	25.7	16.6	2.2	16.9	0.3	4.3
Geothermal	5.47	9.61	13.74	18.18	33.34	20.8	12.8	14.4	13.9	17.5	2.5	5.2	4.5	4.7
Others	0.43	0.30	5.06	9.32	9.76	1.6	0.4	5.3	7.1	5.1	-1.6	49.8	3.3	13.8

Power generation Input	MTOE										AAGR(%)			
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2040	2013-2040
	2.69	**11.87**	**10.13**	**13.55**	**21.27**	**100**	**100**	**100**	**100**	**100**	**6.7**	**-2.2**	**3.8**	**2.2**
Coal	0.51	7.81	7.03	7.95	10.60	18.9	65.8	69.4	58.7	49.8	12.6	-1.5	2.1	1.1
Oil	2.18	1.07	0.95	1.05	1.40	81.1	9.0	9.4	7.7	6.6	-3.0	-1.6	1.9	1.0
Natural gas	0.00	2.99	2.14	4.55	9.27	0.0	25.2	21.2	33.6	43.6	-	-4.6	7.6	4.3

Thermal Efficiency	%						AAGR(%)			
	1990	2013	2020	2030	2040		1990-2013	2013-2020	2020-2040	2013-2040
	46	**40**	**40**	**43**	**46**		**-0.6**	**-0.1**	**0.7**	**0.5**
Coal	33	35	36	36	36		0.3	0.3	0.0	0.1
Oil	49	36	36	36	36		-1.3	0.0	0.0	0.0
Natural gas	-	54	56	56	56		-	0.5	0.0	0.1

CO_2 emissions	Mt-C										AAGR(%)			
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2040	2013-2040
	10.17	**44.33**	**59.73**	**89.85**	**147.81**	**100**	**100**	**100**	**100**	**100**	**6.6**	**4.4**	**4.6**	**4.6**
Coal	1.36	8.31	14.25	30.76	66.41	13.4	18.8	23.9	34.2	44.9	8.2	8.0	8.0	8.0
Oil	8.80	35.86	45.08	58.35	80.49	86.6	80.9	75.5	64.9	54.5	6.3	3.3	2.9	3.0
Natural Gas	0.00	0.15	0.40	0.74	0.91	0.0	0.3	0.7	0.8	0.6	-	15.0	4.2	6.9

						AAGR(%)			
	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2040	2013-2040
GDP (billions of 2005 US dollars)	62.1	155.6	236.0	418.2	714.4	4.1	6.1	5.7	5.8
Population (millions of people)	61.9	98.2	112.3	129.1	146.9	2.0	1.9	1.3	1.5
GDP per capita (thousands of 2005 USD/person)	1.00	1.58	2.1	3.2	4.9	2.0	4.1	4.3	4.2
Primary energy consumption per capita (toe/person)	0.46	0.45	0.45	0.53	0.73	-0.1	0.1	2.4	1.8
Primary energy consumption per unit of GDP (toe/million 2005 US Dollars)	462	286	216	165	150	-2.1	-3.9	-1.8	-2.4
Final energy consumption per unit of GDP (toe/million 2005 US Dollars)	316	166	134	105	92	-2.8	-3.0	-1.8	-2.2
CO_2 emissions per unit of GDP (t-C/million 2005 US Dollars)	164	285	253	215	207	2.4	-1.7	-1.0	-1.2
CO_2 emissions per unit of primary energy consumption (t-C/toe)	0.35	1.00	1.17	1.30	1.38	4.6	2.3	0.8	1.2
Automobile ownership volume (millions of vehicles)	1.22	3.44	4.72	7.60	12.60	4.6	4.6	5.0	4.9
Automobile ownership volume per capita (vehicles per person)	0.02	0.04	0.04	0.06	0.09	2.5	2.6	3.6	3.4

Singapore [BAU]

Primary energy consumption

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**11.53**	**28.73**	**47.76**	**53.11**	**56.61**	**100**	**100**	**100**	**100**	**100**	**4.1**	**7.5**	**1.1**	**0.6**	**2.5**
Coal	0.02	0.26	0.29	0.33	0.36	0.2	0.9	0.6	0.6	0.6	11.4	1.5	1.3	0.8	1.2
Oil	11.44	19.22	35.33	37.42	39.18	99.2	66.9	74.0	70.5	69.2	2.3	9.1	0.6	0.5	2.7
Natural gas	0.00	8.90	11.65	14.63	16.12	0.0	31.0	24.4	27.5	28.5	-	3.9	2.3	1.0	2.2
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hydro	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Geothermal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	0.07	0.35	0.49	0.73	0.95	0.6	1.2	1.0	1.4	1.7	7.2	5.0	4.0	2.7	3.8
Biomass	0.07	0.35	0.43	0.53	0.60	0.6	1.2	0.9	1.0	1.1	7.2	2.9	2.2	1.2	2.0
Solar, Wind, Ocean	0.00	0.00	0.07	0.20	0.35	0.0	0.0	0.1	0.4	0.6	-	74.0	11.5	6.0	22.8
Biofuels	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Electricit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Final energy demand

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**5.01**	**20.24**	**38.54**	**42.93**	**45.88**	**100**	**100**	**100**	**100**	**100**	**6.3**	**9.6**	**1.1**	**0.7**	**3.1**
Industry	0.61	5.86	9.48	13.03	15.29	12.1	28.9	24.6	30.4	33.3	10.4	7.1	3.2	1.6	3.6
Transportation	1.36	2.95	3.09	3.44	3.89	27.1	14.6	8.0	8.0	8.5	3.4	0.7	1.1	1.2	1.0
Others	1.13	2.37	2.79	3.24	3.46	22.6	11.7	7.2	7.6	7.5	3.3	2.3	1.5	0.6	1.4
Non-energy	1.91	9.06	23.18	23.22	23.24	38.2	44.8	60.1	54.1	50.7	7.0	14.4	0.0	0.0	3.6
Total	**5.01**	**20.24**	**38.54**	**42.93**	**45.88**	**100**	**100**	**100**	**100**	**100**	**6.3**	**9.6**	**1.1**	**0.7**	**3.1**
Coal	0.02	0.13	0.13	0.13	0.13	0.4	0.6	0.3	0.3	0.3	8.2	0.0	0.0	0.0	0.0
Oil	3.81	14.87	31.37	33.48	35.27	76.1	73.5	81.4	78.0	76.9	6.1	11.3	0.7	0.5	3.3
Natural gas	0.06	1.30	2.23	3.32	3.71	1.2	6.4	5.8	7.7	8.1	14.1	8.0	4.1	1.1	4.0
Electricity	1.12	3.94	4.82	6.01	6.77	22.3	19.5	12.5	14.0	14.8	5.6	2.9	2.2	1.2	2.0
Heat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Power generation Output

	TWh										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**15.71**	**47.97**	**58.66**	**73.12**	**82.48**	**100**	**100**	**100**	**100**	**100**	**5.0**	**2.9**	**2.2**	**1.2**	**2.0**
Coal	-	0.39	0.48	0.60	0.67	0.0	0.8	0.8	0.8	0.8	-	2.9	2.2	1.2	2.0
Oil	15.54	2.33	0.56	0.48	0.29	98.9	4.9	1.0	0.7	0.4	-7.9	-18.4	-1.6	-4.9	-7.4
Natural gas	-	43.88	55.19	67.66	75.06	0.0	91.5	94.1	92.5	91.0	-	3.3	2.1	1.0	2.0
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hydro	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Geothermal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	0.17	1.37	2.44	4.38	6.46	1.1	2.9	4.2	6.0	7.8	9.5	8.5	6.0	4.0	5.9

Power generation Input

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**4.42**	**8.24**	**9.70**	**11.61**	**12.70**	**100**	**100**	**100**	**100**	**100**	**2.7**	**2.4**	**1.8**	**0.9**	**1.6**
Coal	-	0.13	0.16	0.20	0.23	-	1.6	1.7	1.8	1.8	-	2.9	2.2	1.2	2.0
Oil	4.42	0.50	0.12	0.10	0.06	100.0	6.1	1.2	0.9	0.5	-9.0	-18.6	-1.7	-4.9	-7.5
Natural gas	-	7.61	9.42	11.31	12.41	-	92.3	97.1	97.4	97.7	-	3.1	1.8	0.9	1.8

Thermal Efficiency

	%						AAGR(%)				
	1990	2013	2020	2030	2040		1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**30.3**	**48.6**	**49.8**	**50.9**	**51.5**		**2.1**	**0.3**	**0.2**	**0.1**	**0.2**
Coal	-	25.1	25.1	25.1	25.1		-	0.0	0.0	0.0	0.0
Oil	30.3	40.1	40.9	41.5	41.5		1.2	0.3	0.2	0.0	0.1
Natural gas	-	49.6	50.4	51.5	52.0		-	0.2	0.2	0.1	0.2

CO_2 emissions

	Mt-C										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**5.7**	**13.7**	**19.4**	**22.5**	**24.1**	**100**	**100**	**100**	**100**	**100**	**3.9**	**5.1**	**1.5**	**0.7**	**2.1**
Coal	0.1	-	-	-	-	1.2	-	-	-	-	-100.0	-	-	-	-
Oil	5.6	8.0	12.0	13.1	13.7	98.8	58.5	61.6	58.3	57.1	1.6	5.8	0.9	0.5	2.0
Natural Gas	0.0	5.7	7.5	9.4	10.3	0.0	41.5	38.4	41.7	42.9	-	3.9	2.3	1.0	2.2

Energy and economic indicators

						AAGR(%)				
	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
GDP (billions of 2005 US dollars)	50.4	202.4	248.7	326.7	402.5	6.23	2.99	2.76	2.11	2.58
Population (millions of people)	3.0	5.4	5.8	6.3	6.6	2.52	1.04	0.78	0.53	0.75
GDP per capita (thousands of 2005 USD/person)	16.55	37.49	42.8	52.1	60.9	3.62	1.92	1.97	1.57	1.81
Primary energy consumption per capita (toe/person)	3.78	5.32	8.23	8.47	8.56	1.49	6.42	0.29	0.11	1.78
Primary energy consumption per unit of GDP (toe/million 2005 US Dollars)	229	142	192	163	141	-2.05	4.41	-1.65	-1.44	-0.03
Final energy consumption per unit of GDP (toe/million 2005 US Dollars)	99	100	155	131	114	0.03	6.46	-1.63	-1.41	0.49
CO_2 emissions per unit of GDP (t-C/million 2005 US Dollars)	112	68	78	69	60	-2.17	2.02	-1.25	-1.40	-0.47
CO_2 emissions per unit of primary energy consumption (t-C/toe)	0.49	0.48	0.41	0.42	0.43	-0.12	-2.29	0.41	0.04	-0.43
Automobile ownership volume (millions of vehicles)	-	0.83	0.85	0.87	0.89	-	0.28	0.25	0.25	0.26
Automobile ownership volume per capita (vehicles per person)	-	0.154	0.146	0.138	0.134	-	-0.75	-0.52	-0.28	-0.49

Singapore [APS]

Primary energy consumption

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**11.53**	**28.73**	**47.03**	**51.03**	**53.68**	**100**	**100**	**100**	**100**	**100**	**4.1**	**7.3**	**0.8**	**0.5**	**2.3**
Coal	0.02	0.26	0.29	0.33	0.35	0.2	0.9	0.6	0.6	0.7	11.4	1.4	1.2	0.7	1.1
Oil	11.44	19.22	35.23	37.13	38.76	99.2	66.9	74.9	72.8	72.2	2.3	9.0	0.5	0.4	2.6
Natural gas	0.00	8.90	10.98	12.76	13.48	0.0	31.0	23.3	25.0	25.1	-	3.0	1.5	0.5	1.5
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hydro	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Geothermal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	0.07	0.35	0.52	0.81	1.09	0.6	1.2	1.1	1.6	2.0	7.2	6.0	4.5	3.0	4.3
Biomass	0.07	0.35	0.42	0.50	0.55	0.6	1.2	0.9	1.0	1.0	7.2	2.7	1.8	0.9	1.7
Solar, Wind, Ocean	0.00	0.00	0.10	0.31	0.54	0.0	0.0	0.2	0.6	1.0	-	85.5	11.4	5.9	24.8
Biofuels	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Electricit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Final energy demand

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**5.01**	**20.24**	**38.36**	**42.33**	**45.00**	**100**	**100**	**100**	**100**	**100**	**6.3**	**9.6**	**1.0**	**0.6**	**3.0**
Industry	0.61	5.85	9.33	12.54	14.57	12.1	28.9	24.3	29.6	32.4	10.4	6.9	3.0	1.5	3.4
Transportation	1.36	2.95	3.09	3.42	3.86	27.1	14.6	8.0	8.1	8.6	3.4	0.6	1.0	1.2	1.0
Others	1.13	2.37	2.76	3.15	3.33	22.6	11.7	7.2	7.5	7.4	3.3	2.2	1.4	0.5	1.3
Non-energy	1.91	9.06	23.18	23.22	23.24	38.2	44.8	60.4	54.8	51.7	7.0	14.4	0.0	0.0	3.6
Total	**5.01**	**20.24**	**38.36**	**42.33**	**45.00**	**100**	**100**	**100**	**100**	**100**	**6.3**	**9.6**	**1.0**	**0.6**	**3.0**
Coal	0.02	0.13	0.13	0.13	0.13	0.4	0.6	0.3	0.3	0.3	8.2	0.0	0.0	0.0	0.0
Oil	3.81	14.87	31.28	33.20	34.86	76.1	73.5	81.6	78.4	77.5	6.1	11.2	0.6	0.5	3.2
Natural gas	0.06	1.30	2.19	3.19	3.52	1.2	6.4	5.7	7.5	7.8	14.1	7.8	3.8	1.0	3.8
Electricity	1.12	3.94	4.75	5.81	6.48	22.3	19.5	12.4	13.7	14.4	5.6	2.7	2.0	1.1	1.9
Heat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Power generation Output

	TWh										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**15.71**	**47.97**	**57.90**	**70.70**	**78.95**	**100**	**100**	**100**	**100**	**100**	**5.0**	**2.7**	**2.0**	**1.1**	**1.9**
Coal	0.00	0.39	0.47	0.58	0.64	0.0	0.8	0.8	0.8	0.8	-	2.7	2.0	1.1	1.9
Oil	15.54	2.33	0.50	0.43	0.28	98.9	4.9	0.9	0.6	0.4	-7.9	-19.7	-1.5	-4.3	-7.6
Natural gas	0.00	43.88	54.07	64.13	69.47	0.0	91.5	93.4	90.7	88.0	-	3.0	1.7	0.8	1.7
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hydro	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Geothermal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	0.17	1.37	2.86	5.56	8.55	1.1	2.9	4.9	7.9	10.8	9.5	11.0	6.9	4.4	7.0

Power generation Input

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**0.00**	**8.24**	**9.05**	**9.85**	**10.23**	**-**	**100**	**100**	**100**	**100**	**-**	**1.4**	**0.8**	**0.4**	**0.8**
Coal	-	0.13	0.16	0.20	0.22	-	1.6	1.8	2.0	2.2	-	2.7	2.0	1.1	1.9
Oil	-	0.50	0.10	0.08	0.05	-	6.1	1.1	0.9	0.5	-	-20.1	-2.0	-4.6	-8.0
Natural gas	-	7.61	8.79	9.57	9.96	-	92.3	97.1	97.1	97.3	-	2.1	0.9	0.4	1.0

Thermal Efficiency

	%						AAGR(%)				
	1990	2013	2020	2030	2040		1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**-**	**48.6**	**52.3**	**56.9**	**59.2**		**-**	**1.0**	**0.8**	**0.4**	**0.7**
Coal	-	25.1	25.1	25.1	25.1		-	0.0	0.0	0.0	0.0
Oil	-	40.1	41.7	43.9	45.0		-	0.5	0.5	0.2	0.4
Natural gas	-	49.6	52.9	57.6	60.0		-	0.9	0.9	0.4	0.7

CO_2 emissions

	Mt-C										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**5.7**	**13.7**	**18.9**	**21.1**	**22.1**	**100**	**100**	**100**	**100**	**100**	**3.9**	**4.7**	**1.1**	**0.5**	**1.8**
Coal	0.1	-	-	-	-	1.2	-	-	-	-	-100.0	-	-	-	-
Oil	5.6	8.0	11.9	12.9	13.5	98.8	58.5	62.8	61.2	60.9	1.6	5.7	0.8	0.4	1.9
Natural Gas	0.0	5.7	7.0	8.2	8.6	0.0	41.5	37.2	38.8	39.1	-	3.0	1.5	0.5	1.5

Energy and economic indicators

						AAGR(%)				
	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
GDP (billions of 2005 US dollars)	50.4	202.4	248.7	326.7	402.5	6.2	3.0	2.8	2.1	2.6
Population (millions of people)	3.0	5.4	5.8	6.3	6.6	2.5	1.0	0.8	0.5	0.8
GDP per capita (thousands of 2005 USD/person)	16.55	37.49	42.8	52.1	60.9	3.6	1.9	2.0	1.6	1.8
Primary energy consumption per capita (toe/person)	3.78	5.32	8.10	8.13	8.12	1.5	6.2	0.0	0.0	1.6
Primary energy consumption per unit of GDP (toe/million 2005 US Dollars)	229	142	189	156	133	-2.0	4.2	-1.9	-1.6	-0.2
Final energy consumption per unit of GDP (toe/million 2005 US Dollars)	99	100	154	130	112	0.0	6.4	-1.7	-1.5	0.4
CO_2 emissions per unit of GDP (t-C/million 2005 US Dollars)	112	68	76	65	55	-2.2	1.6	-1.6	-1.6	-0.8
CO_2 emissions per unit of primary energy consumption (t-C/toe)	0.49	0.48	0.40	0.41	0.41	-0.1	-2.4	0.3	0.0	-0.6
Automobile ownership volume (millions of vehicles)						-	-	-	-	-
Automobile ownership volume per capita (vehicles per person)	-	-	-	-	-	-	-	-	-	-

Thailand [BAU]

Primary energy consumption	MTOE					Share, %					AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
	42.63	**132.30**	**160.07**	**210.67**	**301.48**	**100**	**100**	**100**	**100**	**100**	**5.0**	**2.8**	**2.8**	**3.6**	**3.1**
Coal	3.82	17.09	20.02	27.52	51.59	9.0	12.9	12.5	13.1	17.1	6.7	2.3	3.2	6.5	4.2
Oil	17.96	50.89	62.00	82.28	112.10	42.1	38.5	38.7	39.1	37.2	4.6	2.9	2.9	3.1	3.0
Natural gas	4.99	37.84	45.78	55.52	78.72	11.7	28.6	28.6	26.4	26.1	9.2	2.8	1.9	3.6	2.8
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hydro	0.43	0.49	0.89	1.14	1.27	1.0	0.4	0.6	0.5	0.4	0.6	8.7	2.5	1.1	3.6
Geothermal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	15.43	25.99	31.39	44.21	57.79	36.2	19.6	19.6	21.0	19.2	2.3	2.7	3.5	2.7	3.0
Biomass	14.69	23.28	26.96	35.25	46.31	34.4	17.6	16.8	16.7	15.4	2.0	2.1	2.7	2.8	2.6
Solar, Wind, Ocean	-	0.16	0.91	1.86	2.04	-	0.1	0.6	0.9	0.7	-	28.1	7.3	0.9	9.8
Biofuels	-	1.20	0.95	1.10	1.36	-	0.9	0.6	0.5	0.5	-	-3.3	1.5	2.1	0.5
Electricity	0.05	1.34	2.56	6.00	8.07	0.1	1.0	1.6	2.8	2.7	15.1	9.7	8.9	3.0	6.9

Final energy demand	MTOE					Share, %					AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
	28.87	**95.80**	**120.82**	**164.78**	**227.55**	**100**	**100**	**100**	**100**	**100**	**5.4**	**3.4**	**3.2**	**3.3**	**3.3**
Industry	8.65	29.90	37.91	53.67	76.30	30.0	31.2	31.4	32.6	33.5	5.5	3.4	3.5	3.6	3.5
Transportation	9.01	22.63	30.24	36.78	47.08	31.2	23.6	25.0	22.3	20.7	4.1	4.2	2.0	2.5	2.8
Others	10.78	21.49	25.31	34.34	46.12	37.3	22.4	21.0	20.8	20.3	3.0	2.4	3.1	3.0	2.9
Non-energy	0.43	21.79	27.36	39.98	58.05	1.5	22.7	22.6	24.3	25.5	18.6	3.3	3.9	3.8	3.7
	28.87	**95.80**	**120.82**	**164.78**	**227.55**	**100**	**100**	**100**	**100**	**100**	**5.4**	**3.4**	**3.2**	**3.3**	**3.3**
Coal	1.31	8.73	12.24	17.27	24.28	4.5	9.1	10.1	10.5	10.7	8.6	4.9	3.5	3.5	3.9
Oil	14.93	48.01	58.90	77.67	105.11	51.7	50.1	48.8	47.1	46.2	5.2	3.0	2.8	3.1	2.9
Natural gas	0.14	9.44	15.11	22.74	33.82	0.5	9.9	12.5	13.8	14.9	20.2	7.0	4.2	4.0	4.8
Electricity	3.30	14.13	17.10	24.85	35.72	11.4	14.8	14.2	15.1	15.7	6.5	2.8	3.8	3.7	3.5
Heat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	9.20	15.49	17.46	22.25	28.62	31.9	16.2	14.5	13.5	12.6	2.3	1.7	2.5	2.5	2.3

Power generation Output	TWh					Share, %					AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
	44.18	**165.71**	**187.79**	**246.09**	**360.78**	**100**	**100**	**100**	**100**	**100**	**5.9**	**1.8**	**2.7**	**3.9**	**2.9**
Coal	11.05	32.92	30.41	39.65	105.03	25.0	19.9	16.2	16.1	29.1	4.9	-1.1	2.7	10.2	4.4
Oil	10.38	1.68	-	0.72	2.78	23.5	1.0	-	0.3	0.8	-7.6	-100.0	-	14.4	1.9
Natural gas	17.77	117.01	128.11	156.64	189.28	40.2	70.6	68.2	63.7	52.5	8.5	1.3	2.0	1.9	1.8
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hydro	4.98	5.75	10.30	13.24	14.82	11.3	3.5	5.5	5.4	4.1	0.6	8.7	2.5	1.1	3.6
Geothermal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	8.36	18.97	35.84	48.87	-	5.04	10.1	14.6	13.5	-	12.4	6.6	3.1	6.8

Power generation Input	MTOE					Share, %					AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
	8.92	**29.71**	**30.76**	**38.51**	**61.88**	**100**	**100**	**100**	**100**	**100**	**5.4**	**0.5**	**2.3**	**4.9**	**2.8**
Coal	2.55	8.35	7.78	10.25	27.31	28.6	28.1	25.3	26.6	44.1	5.3	-1.0	2.8	10.3	4.5
Oil	2.55	0.37	-	0.16	0.62	28.6	1.2	-	0.4	1.0	-8.0	-100.0	-	14.4	1.9
Natural gas	3.82	20.99	22.98	28.10	33.95	42.9	70.6	74.7	73.0	54.9	7.7	1.3	2.0	1.9	1.8

Thermal Efficiency	%						AAGR(%)				
	1990	2013	2020	2030	2040		1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
	38	**44**	**44**	**44**	**41**		**0.7**	**0.1**	**-0.1**	**-0.6**	**-0.2**
Coal	37	34	34	33	33		-0.4	-0.1	-0.1	-0.1	-0.1
Oil	35	39	-	39	39		0.5	-	-		
Natural gas	40	48	48	48	48		0.8				

CO_2 emissions	Mt-C					Share, %					AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
	43.5	**60.2**	**73.0**	**95.1**	**140.6**	**100**	**100**	**100**	**100**	**100**	**1.4**	**2.8**	**2.7**	**4.0**	**3.2**
Coal	12.6	18.1	21.2	29.1	54.6	29.0	30.1	29.0	30.6	38.8	1.6	2.3	3.2	6.5	4.2
Oil	18.7	25.6	33.0	41.6	54.5	43.1	42.5	45.3	43.7	38.7	1.4	3.7	2.3	2.7	2.8
Natural Gas	12.1	16.5	18.8	24.4	31.5	27.9	27.4	25.7	25.6	22.4	1.3	1.9	2.6	2.6	2.4

						AAGR(%)				
	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
GDP (billions of 2005 US dollars)	88.9	230.4	289.3	422.7	613.8	4.2	3.3	3.9	3.8	3.7
Population (millions of people)	55.8	67.5	67.6	67.8	68.0	0.8	0.03	0.03	0.03	0.03
GDP per capita (thousands of 2005 USD/person)	1.59	3.42	4.3	6.2	9.0	3.4	3.3	3.8	3.8	3.7
Primary energy consumption per capita (toe/person)	0.76	1.96	2.37	3.11	4.43	4.2	2.7	2.8	3.6	3.1
Primary energy consumption per unit of GDP (toe/million 2005 US Dollars)	479	574	553	498	491	0.8	-0.5	-1.0	-0.1	-0.6
Final energy consumption per unit of GDP (toe/million 2005 US Dollars)	325	416	418	390	371	1.1	0.1	-0.7	-0.5	-0.4
CO_2 emissions per unit of GDP (t-C/million 2005 US Dollars)	489	261	252	225	229	-2.7	-0.5	-1.1	0.2	-0.5
CO_2 emissions per unit of primary energy consumption (t-C/toe)	1.02	0.45	0.46	0.45	0.47	-3.4	0.0	-0.1	0.3	0.1
Automobile ownership volume (millions of vehicles)	-	-	-	-	-	-	-	-	-	-
Automobile ownership volume per capita (vehicles per person)	-	-	-	-		-	-	-	-	-

Thailand [APS]

Primary energy consumption	MTOE					Share, %					AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
	42.63	**132.30**	**141.28**	**161.35**	**209.74**	**100**	**100**	**100**	**100**	**100**	**5.0**	**0.9**	**1.3**	**2.7**	**1.7**
Coal	3.82	17.09	17.06	20.65	28.44	9.0	12.9	12.1	12.8	13.6	6.7	0.0	1.9	3.3	1.9
Oil	17.96	50.89	54.98	62.94	78.52	42.1	38.5	38.9	39.0	37.4	4.6	1.1	1.4	2.2	1.6
Natural gas	4.99	37.84	39.39	39.86	50.81	11.7	28.6	27.9	24.7	24.2	9.2	0.6	0.1	2.5	1.1
Nuclear					2.84	-	-	-	-	1.4	-	-	-	-	-
Hydro	0.43	0.49	0.94	1.15	1.36	1.0	0.4	0.7	0.7	0.6	0.6	9.7	2.0	1.7	3.8
Geothermal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	15.43	25.99	28.91	36.75	47.78	36.2	19.6	20.5	22.8	22.8	2.3	1.5	2.4	2.7	2.3
Biomass	14.69	23.28	25.02	30.79	38.55	34.4	17.6	17.7	19.1	18.4	2.0	1.0	2.1	2.3	1.9
Solar, Wind, Ocean		0.16	0.61	1.41	2.33	-	0.1	0.4	0.9	1.1	-	20.8	8.8	5.1	10.4
Biofuels		1.20	0.72	0.49	0.32	-	0.9	0.5	0.3	0.2	-	-7.1	-3.7	-4.2	-4.8
Electricity	0.05	1.34	2.56	4.06	6.57	0.1	1.0	1.8	2.5	3.1	15.1	9.7	4.7	4.9	6.1

Final energy demand	MTOE					Share, %					AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
	28.87	**95.80**	**108.60**	**130.55**	**167.63**	**100**	**100**	**100**	**100**	**100**	**5.4**	**1.8**	**1.9**	**2.5**	**2.1**
Industry	8.65	29.90	34.15	43.89	59.59	30.0	31.2	31.4	33.6	35.5	5.5	1.9	2.5	3.1	2.6
Transportation	9.01	22.63	23.04	17.02	12.52	31.2	23.6	21.2	13.0	7.5	4.1	0.3	-3.0	-3.0	-2.2
Others	10.78	21.49	24.06	29.67	37.47	37.3	22.4	22.1	22.7	22.4	3.0	1.6	2.1	2.4	2.1
Non-energy	0.43	21.79	27.36	39.98	58.05	1.5	22.7	25.2	30.6	34.6	18.6	3.3	3.9	3.8	3.7
	28.87	**95.80**	**108.60**	**130.55**	**167.63**	**100**	**100**	**100**	**100**	**100**	**5.4**	**1.8**	**1.9**	**2.5**	**2.1**
Coal	1.31	8.73	11.03	14.12	18.97	4.5	9.1	10.2	10.8	11.3	8.6	3.4	2.5	3.0	2.9
Oil	14.93	48.01	51.88	58.50	71.68	51.7	50.1	47.8	44.8	42.8	5.2	1.1	1.2	2.1	1.5
Natural gas	0.14	9.44	14.05	19.58	28.08	0.5	9.9	12.9	15.0	16.7	20.2	5.8	3.4	3.7	4.1
Electricity	3.30	14.13	15.56	19.82	26.34	11.4	14.8	14.3	15.2	15.7	6.5	1.4	2.4	2.9	2.3
Heat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	9.20	15.49	16.08	18.53	22.57	31.9	16.2	14.8	14.2	13.5	2.3	0.5	1.4	2.0	1.4

Power generation Output	TWh					Share, %					AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
	44.18	**165.71**	**167.99**	**203.67**	**257.05**	**100**	**100**	**100**	**100**	**100**	**5.9**	**0.2**	**1.9**	**2.4**	**1.6**
Coal	11.05	32.92	27.32	32.49	47.59	25.0	19.9	16.3	16.0	18.5	4.9	-2.6	1.7	3.9	1.4
Oil	10.38	1.68			2.21	23.5	1.0	-	-	0.9	-7.6	-100.0	-	-	1.0
Natural gas	17.77	117.01	115.09	128.34	134.14	40.2	70.6	68.5	63.0	52.2	8.5	-0.2	1.1	0.4	0.5
Nuclear					10.88	-	-	-	-	4.2	-	-	-	-	-
Hydro	4.98	5.75	10.96	13.38	15.84	11.3	3.5	6.5	6.6	6.2	0.6	9.7	2.0	1.7	3.8
Geothermal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others		8.36	14.63	29.47	46.39	-	5.0	8.7	14.5	18.0	-	8.3	7.3	4.6	6.6

Power generation Input	MTOE					Share, %					AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
	8.92	**29.71**	**25.87**	**27.50**	**31.30**	**100**	**100**	**100**	**100**	**100**	**5.4**	**-2.0**	**0.6**	**1.3**	**0.2**
Coal	2.55	8.35	6.03	6.53	9.47	28.6	28.1	23.3	23.7	30.2	5.3	-4.6	0.8	3.8	0.5
Oil	2.55	0.37			0.47	28.6	1.2	-	-	1.5	-8.0	-100.0	-	-	0.9
Natural gas	3.82	20.99	19.85	20.97	21.36	42.9	70.6	76.7	76.3	68.2	7.7	-0.8	0.6	0.2	0.1

Thermal Efficiency	%						AAGR(%)				
	1990	2013	2020	2030	2040		1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
	38	**44**	**47**	**50**	**51**		**0.7**	**1.1**	**0.6**	**0.0**	**0.5**
Coal	37	34	39	43	43		-0.4	2.0	0.9	0.1	0.9
Oil	35	39	-	-	40		0.5	-	-	-	0.1
Natural gas	40	48	50	53	54		0.8	0.6	0.5	0.3	0.4

CO_2 emissions	Mt-C					Share, %					AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
	43.47	**60.17**	**61.45**	**65.37**	**76.78**	**100**	**100**	**100**	**100**	**100**	**1.4**	**0.3**	**0.6**	**1.6**	**0.9**
Coal	12.62	18.09	18.06	21.86	30.10	29.0	30.1	29.4	33.4	39.2	1.6	0.0	1.9	3.3	1.9
Oil	18.71	25.59	27.29	25.70	26.83	43.1	42.5	44.4	39.3	34.9	1.4	0.9	-0.6	0.4	0.2
Natural Gas	12.14	16.50	16.10	17.81	19.84	27.9	27.4	26.2	27.2	25.8	1.3	-0.3	1.0	1.1	0.7

						AAGR(%)				
	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
GDP (billions of 2005 US dollars)	88.9	230.4	289.3	422.7	613.8	4.2	3.3	3.9	3.8	3.7
Population (millions of people)	55.8	67.5	67.6	67.8	68.0	0.8	0.03	0.03	0.03	0.03
GDP per capita (thousands of 2005 USD/person)	1.59	3.42	4.3	6.2	9.0	3.4	3.3	3.8	3.8	3.7
Primary energy consumption per capita (toe/person)	0.76	1.96	2.09	2.38	3.08	4.2	0.9	1.3	2.6	1.7
Primary energy consumption per unit of GDP (toe/million 2005 US Dollars)	479	574	488	382	342	0.8	-2.3	-2.4	-1.1	-1.9
Final energy consumption per unit of GDP (toe/million 2005 US Dollars)	325	416	375	309	273	1.1	-1.5	-1.9	-1.2	-1.5
CO_2 emissions per unit of GDP (t-C/million 2005 US Dollars)	489	261	212	155	125	-2.7	-2.9	-3.1	-2.1	-2.7
CO_2 emissions per unit of primary energy consumption (t-C/toe)	1.02	0.45	0.43	0.41	0.37	-3.4	-0.6	-0.7	-1.0	-0.8
Automobile ownership volume (millions of vehicles)	-	-				-	-	-	-	
Automobile ownership volume per capita (vehicles per person)	-	-	-	-		-	-	-	-	

Viet Nam [BAU]

Primary energy consumption

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**17.86**	**60.06**	**84.47**	**135.55**	**212.89**	**100**	**100**	**100**	**100**	**100**	**5.4**	**5.0**	**4.8**	**4.6**	**4.8**
Coal	2.21	16.15	30.32	48.89	83.60	12.4	26.9	35.9	36.1	39.3	9.0	9.4	4.9	5.5	6.3
Oil	2.71	16.38	25.39	41.79	62.79	15.2	27.3	30.1	30.8	29.5	8.1	6.5	5.1	4.2	5.1
Natural gas	0.00	8.98	10.89	26.35	49.15	0.0	14.9	12.9	19.4	23.1	41.6	2.8	9.2	6.4	6.5
Nuclear	-	-	-	2.83	2.89	0.0	0.0	0.0	2.1	1.4	-	-	-	0.2	-
Hydro	0.46	4.90	8.74	10.55	10.72	2.6	8.2	10.4	7.8	5.0	10.8	8.6	1.9	0.2	2.9
Geothermal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	12.47	13.66	9.12	5.14	3.74	69.8	22.7	10.8	3.8	1.8	0.4	-5.6	-5.6	-3.1	-4.7
Biomass	12.47	13.84	8.56	4.10	2.24	69.8	23.0	10.1	3.0	1.1	0.5	-6.6	-7.1	-5.9	-6.5
Solar, Wind, Ocean	-	0.01	0.02	0.02	0.02	0.0	0.0	0.0	0.0	0.0	-	23.7	0.1	0.2	5.8
Biofuels	-	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Electricit	-	-0.18	0.53	1.01	1.48	0.0	-0.3	0.6	0.7	0.7	-	-216.6	6.6	3.9	-208.1

Final energy demand

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**16.06**	**50.46**	**67.26**	**100.90**	**151.47**	**100**	**100**	**100**	**100**	**100**	**5.1**	**4.2**	**4.1**	**4.1**	**4.2**
Industry	4.54	19.36	29.63	47.77	74.41	28.3	38.4	44.1	47.3	49.1	6.5	6.3	4.9	4.5	5.1
Transportation	1.38	10.46	15.51	24.09	34.91	8.6	20.7	23.1	23.9	23.1	9.2	5.8	4.5	3.8	4.6
Others	10.11	18.94	19.40	24.33	34.60	63.0	37.5	28.8	24.1	22.8	2.8	0.3	2.3	3.6	2.3
Non-energy	0.03	1.71	2.72	4.71	7.55	0.2	3.4	4.0	4.7	5.0	19.6	6.9	5.6	4.8	5.7
Total	**16.06**	**50.46**	**67.26**	**100.90**	**151.47**	**100**	**100**	**100**	**100**	**100**	**5.1**	**4.2**	**4.1**	**4.1**	**4.2**
Coal	1.33	9.55	14.61	21.96	31.40	8.3	18.9	21.7	21.8	20.7	9.0	6.3	4.2	3.6	4.5
Oil	2.33	14.22	21.61	34.82	52.40	14.5	28.2	32.1	34.5	34.6	8.2	6.2	4.9	4.2	4.9
Natural gas	0.00	1.35	2.46	5.11	9.19	0.0	2.7	3.7	5.1	6.1	-	9.0	7.6	6.1	7.4
Electricity	0.53	9.81	17.43	30.34	48.84	3.3	19.4	25.9	30.1	32.2	13.5	8.6	5.7	4.9	6.1
Heat	-	-	-	-	-	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Others	11.87	15.52	11.15	8.67	9.64	73.9	30.8	16.6	8.6	6.4	1.2	-4.6	-2.5	1.1	-1.7

Power generation Output

	TWh										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**8.68**	**127.32**	**215.42**	**372.84**	**600.24**	**100**	**100**	**100**	**100**	**100**	**12.4**	**7.8**	**5.6**	**4.9**	**5.9**
Coal	2.00	26.86	64.90	113.59	224.61	23.1	21.1	30.1	30.5	37.4	12.0	13.4	5.8	7.1	8.2
Oil	1.31	0.54	0.05	0.63	0.00	15.0	0.4	0.0	0.2	0.0	-3.8	-28.5	28.5	-100.0	-100.0
Natural gas	0.01	42.85	48.01	124.33	239.09	0.1	33.7	22.3	33.3	39.8	47.1	1.6	10.0	6.8	6.6
Nuclear	0.00	0.00	0.00	10.86	11.10	0.0	0.0	0.0	2.9	1.8	-	-	-	0.2	-
Hydro	5.37	56.94	101.68	122.64	124.63	61.8	44.7	47.2	32.9	20.8	10.8	8.6	1.9	0.2	2.9
Geothermal	-	-	-	-	-	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Others	-	0.13	0.78	0.79	0.80	0.0	0.1	0.4	0.2	0.1	-	28.9	0.1	0.2	6.9

Power generation Input

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**1.27**	**14.20**	**23.97**	**48.04**	**91.75**	**100**	**100**	**100**	**100**	**100**	**11.1**	**7.8**	**7.2**	**6.7**	**7.2**
Coal	0.89	6.60	15.71	26.94	52.20	69.8	46.5	65.5	56.1	56.9	9.1	13.2	5.5	6.8	8.0
Oil	0.38	0.14	0.01	0.16	0.00	30.0	1.0	0.1	0.3	0.0	-4.1	-28.7	27.6	-100.0	-100.0
Natural gas	0.00	7.45	8.25	20.95	39.55	0.2	52.5	34.4	43.6	43.1	40.5	1.5	9.8	6.6	6.4

Thermal Efficiency

	%						AAGR(%)				
	1990	2013	2020	2030	2040		1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**22**	**43**	**41**	**43**	**43**		**2.8**	**-0.7**	**0.5**	**0.2**	**0.1**
Coal	19	35	36	36	37		2.6	0.2	0.2	0.2	0.2
Oil	29	32	33	35	-		0.4	0.3	0.7	-	-
Natural gas	17	49	50	51	52		4.7	0.2	0.2	0.2	0.2

CO_2 emissions

	Mt-C										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**4.70**	**35.91**	**58.51**	**100.46**	**168.17**	**100**	**100**	**100**	**100**	**100**	**9.2**	**7.2**	**5.6**	**5.3**	**5.9**
Coal	2.50	17.96	33.44	53.79	91.51	53.2	50.0	57.2	53.5	54.4	9.0	9.3	4.9	5.5	6.2
Oil	2.20	11.71	17.55	28.30	42.27	46.8	32.6	30.0	28.2	25.1	7.5	5.9	4.9	4.1	4.9
Natural Gas	0.00	6.24	7.52	18.37	34.39	0.0	17.4	12.9	18.3	20.4	-	2.7	9.3	6.5	6.5

Energy and economic indicators

						AAGR(%)				
	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
GDP (billions of 2005 US dollars)	17.8	92.3	146.3	268.3	447.5	7.4	6.8	6.2	5.2	6.0
Population (millions of people)	66.0	89.7	96.2	103.1	107.0	1.3	1.0	0.7	0.4	0.7
GDP per capita (thousands of 2005 USD/person)	0.27	1.029	1.5	2.6	4.2	6.0	5.8	5.5	4.9	5.3
Primary energy consumption per capita (toe/person)	0.27	0.67	0.88	1.31	1.99	4.0	4.0	4.1	4.2	4.1
Primary energy consumption per unit of GDP (toe/million 2005 US Dollars)	1,006	651	577	505	476	-1.9	-1.7	-1.3	-0.6	-1.2
Final energy consumption per unit of GDP (toe/million 2005 US Dollars)	905	547	460	376	338	-2.2	-2.5	-2.0	-1.0	-1.8
CO_2 emissions per unit of GDP (t-C/million 2005 US Dollars)	265	389	400	374	376	1.7	0.4	-0.7	0.0	-0.1
CO_2 emissions per unit of primary energy consumption (t-C/toe)	0.26	0.60	0.69	0.74	0.79	3.6	2.1	0.7	0.6	1.0
Automobile ownership volume (millions of vehicles)						-	-	-	-	-
Automobile ownership volume per capita (vehicles per person)	-	-	-	-	-	-	-	-	-	-

Viet Nam [APS]

Primary energy consumption

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**17.86**	**60.06**	**78.05**	**118.69**	**182.76**	**100**	**100**	**100**	**100**	**100**	**5.4**	**3.8**	**4.3**	**4.4**	**4.2**
Coal	2.21	16.15	23.71	32.39	47.78	12.4	26.9	30.4	27.3	26.1	9.0	5.6	3.2	4.0	4.1
Oil	2.71	16.38	24.82	40.29	60.60	15.2	27.3	31.8	33.9	33.2	8.1	6.1	5.0	4.2	5.0
Natural gas	0.00	8.98	10.33	22.09	36.53	0.0	14.9	13.2	18.6	20.0	41.6	2.0	7.9	5.2	5.3
Nuclear	0.00	0.00	0.00	1.93	10.51	0.0	0.0	0.0	1.6	5.7	-	-	-	18.4	-
Hydro	0.46	4.90	8.65	10.53	11.26	2.6	8.2	11.1	8.9	6.2	10.8	8.5	2.0	0.7	3.1
Geothermal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	12.47	13.66	10.54	11.46	16.08	69.8	22.7	13.5	9.7	8.8	0.4	-3.6	0.8	3.4	0.6
Biomass	12.47	13.84	9.42	7.68	9.81	69.8	23.0	12.1	6.5	5.4	0.5	-5.3	-2.0	2.5	-1.3
Solar, Wind, Ocean	-	0.01	0.22	1.89	3.52	0.0	0.0	0.3	1.6	1.9	-	70.5	23.8	6.4	27.2
Biofuels	-	0.00	0.37	0.89	1.28	0.0	0.0	0.5	0.7	0.7	-	-	9.3	3.7	-
Electricit	-	-0.18	0.53	1.00	1.48	0.0	-0.3	0.7	0.8	0.8	-	-216.6	6.6	3.9	-208.1

Final energy demand

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**16.06**	**50.46**	**64.03**	**93.28**	**137.79**	**100**	**100**	**100**	**100**	**100**	**5.1**	**3.5**	**3.8**	**4.0**	**3.8**
Industry	4.54	19.36	27.56	43.05	65.52	28.3	38.4	43.0	46.2	47.5	6.5	5.2	4.6	4.3	4.6
Transportation	1.38	10.46	15.41	23.83	34.50	8.6	20.7	24.1	25.5	25.0	9.2	5.7	4.5	3.8	4.5
Others	10.11	18.94	18.34	21.69	30.23	63.0	37.5	28.6	23.3	21.9	2.8	-0.5	1.7	3.4	1.7
Non-energy	0.03	1.71	2.72	4.71	7.55	0.2	3.4	4.2	5.0	5.5	19.6	6.9	5.6	4.8	5.7
Total	**16.06**	**50.46**	**64.03**	**93.28**	**137.79**	**100**	**100**	**100**	**100**	**100**	**5.1**	**3.5**	**3.8**	**4.0**	**3.8**
Coal	1.33	9.55	13.11	18.70	26.07	8.3	18.9	20.5	20.1	18.9	9.0	4.6	3.6	3.4	3.8
Oil	2.33	14.22	21.05	33.47	50.21	14.5	28.2	32.9	35.9	36.4	8.2	5.8	4.7	4.1	4.8
Natural gas	0.00	1.35	2.35	4.77	8.37	0.0	2.7	3.7	5.1	6.1	-	8.3	7.3	5.8	7.0
Electricity	0.53	9.81	16.01	26.77	42.22	3.3	19.4	25.0	28.7	30.6	13.5	7.2	5.3	4.7	5.6
Heat	-	-	-	-	-	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Others	11.87	15.52	11.51	9.56	10.92	73.9	30.8	18.0	10.2	7.9	1.2	-4.2	-1.8	1.3	-1.3

Power generation Output

	TWh										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**8.68**	**127.32**	**197.29**	**327.65**	**516.54**	**100**	**100**	**100**	**100**	**100**	**12.4**	**6.5**	**5.2**	**4.7**	**5.3**
Coal	2.00	26.86	45.39	62.74	106.04	23.1	21.1	23.0	19.1	20.5	12.0	7.8	3.3	5.4	5.2
Oil	1.31	0.54	0.00	0.00	0.00	15.0	0.4	0.0	0.0	0.0	-3.8	-100.0	-	-	-100.0
Natural gas	0.01	42.85	46.09	104.74	177.42	0.1	33.7	23.4	32.0	34.3	47.1	1.0	8.6	5.4	5.4
Nuclear	0.00	0.00	0.00	7.42	40.32	0.0	0.0	0.0	2.3	7.8	-	-	-	18.4	-
Hydro	5.37	56.94	100.65	122.45	131.00	61.8	44.7	51.0	37.4	25.4	10.8	8.5	2.0	0.7	3.1
Geothermal	-	-	-	-	-	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Others	-	0.13	5.15	30.30	61.77	0.0	0.1	2.6	9.2	12.0	-	68.8	19.4	7.4	25.6

Power generation Input

	MTOE										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**1.27**	**14.20**	**18.39**	**30.70**	**49.45**	**100**	**100**	**100**	**100**	**100**	**11.1**	**3.8**	**5.3**	**4.9**	**4.7**
Coal	0.89	6.60	10.60	13.69	21.71	69.8	46.5	57.6	44.6	43.9	9.1	7.0	2.6	4.7	4.5
Oil	0.38	0.14	0.00	0.00	0.00	30.0	1.0	0.0	0.0	0.0	-4.1	-100.0	-	-	-100.0
Natural gas	0.00	7.45	7.79	17.01	27.75	0.2	52.5	42.4	55.4	56.1	40.5	0.6	8.1	5.0	5.0

Thermal Efficiency

	%						AAGR(%)				
	1990	2013	2020	2030	2040		1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**22.4**	**42.5**	**42.8**	**46.9**	**49.3**		**2.8**	**0.1**	**0.9**	**0.5**	**0.5**
Coal	19.4	35.0	36.8	39.4	42.0		2.6	0.7	0.7	0.6	0.7
Oil	29.4	31.9	-	-	-		0.4	-	-	-	-
Natural gas	17.2	49.4	50.9	52.9	55.0		4.7	0.4	0.4	0.4	0.4

CO_2 emissions

	Mt-C										AAGR(%)				
	1990	2013	2020	2030	2040	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
Total	**4.7**	**35.9**	**50.4**	**78.2**	**118.5**	**100**	**100**	**100**	**100**	**100**	**9.2**	**5.0**	**4.5**	**4.2**	**4.5**
Coal	2.5	18.0	26.2	35.8	52.7	53.2	50.0	52.0	45.8	44.4	9.0	5.5	3.2	3.9	4.1
Oil	2.2	11.7	17.1	27.0	40.4	46.8	32.6	33.9	34.6	34.1	7.5	5.5	4.7	4.1	4.7
Natural Gas	0.0	6.2	7.1	15.3	25.4	0.0	17.4	14.1	19.6	21.4	-	1.9	8.0	5.2	5.3

Energy and economic indicators

						AAGR(%)				
	1990	2013	2020	2030	2040	1990-2013	2013-2020	2020-2030	2030-2040	2013-2040
GDP (billions of 2005 US dollars)	17.8	92.3	146.3	268.3	447.5	7.4	6.8	6.2	5.2	6.0
Population (millions of people)	66.0	89.7	96.2	103.1	107.0	1.3	1.0	0.7	0.4	0.7
GDP per capita (thousands of 2005 USD/person)	0.27	1.03	1.5	2.6	4.2	6.0	5.8	5.5	4.9	5.3
Primary energy consumption per capita (toe/person)	0.27	0.67	0.81	1.15	1.71	4.0	2.8	3.6	4.0	3.5
Primary energy consumption per unit of GDP (toe/million 2005 US Dollars)	1,006	651	533	442	408	-1.9	-2.8	-1.9	-0.8	-1.7
Final energy consumption per unit of GDP (toe/million 2005 US Dollars)	905	547	438	348	308	-2.2	-3.1	-2.3	-1.2	-2.1
CO_2 emissions per unit of GDP (t-C/million 2005 US Dollars)	265	389	344	291	265	1.7	-1.7	-1.7	-1.0	-1.4
CO_2 emissions per unit of primary energy consumption (t-C/toe)	0.26	0.60	0.65	0.66	0.65	3.6	1.1	0.2	-0.2	0.3
Automobile ownership volume (millions of vehicles)						-	-	-	-	-
Automobile ownership volume per capita (vehicles per person)	-	-	-	-	-	-	-	-	-	-