

In 2012 and the first quarter of 2013, international crude oil prices followed a fluctuating trend. A host of factors were responsible for the fluctuations of crude oil prices. Factors contributing to the run-up in crude oil prices included improvement in the economic condition in Germany, continuation of tensions in the Middle East region especially in Syria and Egypt, provision of economic incentives by the Federal Reserve and Bank of Japan, progress in China's economic growth, fall in the volume of Iran's crude oil exports, and depreciation of US dollar vis-à-vis euro. On the other hand, continuation of economic recession in Europe especially in Greece and Spain, rise in the production of crude oil by OPEC member countries as well as non-OPEC countries, uncertainties regarding the increase of global GDP, and the buildup of US crude stocks were responsible for the decrease in crude oil prices in 2012.

The year 2012 was witness to two Meetings of the OPEC Conference. The 161st Meeting of the OPEC Conference was held in Vienna, capital city of Austria, on July 14, 2012 during which, the production ceiling was kept unchanged at 30.0 mb/d. At the 162nd Meeting of the OPEC Conference convened in Vienna, on December 12, 2012, OPEC agreed to maintain its production ceiling of 30.0 mb/d. Meanwhile, the Conference decided to extend the tenure of Abdalla Salem El-Badri (the Libyan Secretary General) as Secretary General for a period of one year.

In 1391, Iran produced crude oil in adherence to the quotas set by the OPEC. According to the Ministry of Petroleum, average crude oil exports decreased by 11.3 percent in this year, to 1.8 mb/d while exports of oil products increased by 17.7 percent to 104 thousand b/d.

OPEC

Primary Energy Consumption

Primary energy consumption by the OPEC member countries rose from 724.8 million tons oil equivalent in 2011 to 759.4 million tons oil equivalent in 2012. Among primary energy sources, oil and natural gas are consumed by member countries to a large extent, while hydroelectricity and coal are used by Iran, Venezuela, and Algeria sparingly. Middle East members (Saudi Arabia, Iran, Kuwait, United Arab Emirates, and Qatar), with a total consumption of 613.7 million tons oil equivalent, accounted for higher consumption as compared with other members (Venezuela, Ecuador, and Algeria). Iran, with 234.2 million tons oil equivalent, ranked first, followed by Saudi Arabia, with 222.2 million tons oil equivalent.

Crude Oil Proven Reserves

At end-2012, crude oil proven reserves located in OPEC member countries reached 1,211.9 billion barrels, up by 1.1 percent compared with 2011 year-end. Among OPEC

Chapter 3 ENERGY

member countries, the largest reserves, by 297.6 billion barrels, belonged to Venezuela, followed by Saudi Arabia, with 265.9 billion barrels. Iran, with 157.0 billion barrels, ranked third among OPEC member countries.

Crude Oil Production

In 2012, average OPEC crude oil production, with 4.0 percent rise, amounted to 37.4 mb/d compared with 2011. Production of OPEC Middle East members, with 1.7 percent increase, totaled 26.8 mb/d and production of other members increased by 10.3 percent to 10.6 mb/d. The highest amount of production was related to Saudi Arabia with 11.5 mb/d, and a share of 30.8 percent.

Production Ceiling

The OPEC Conference, in its 161st Meeting held in Vienna, on July 14, 2012, kept the production ceiling unchanged at 30.0 mb/d. In the 162nd Meeting held in Vienna on December 12, 2012, OPEC agreed to keep its production ceiling at 30.0 mb/d.

Oil Consumption

In 2012, average oil consumption in OPEC member countries¹ grew by 3.8 percent to 7.7 mb/d. The highest amount of consumption was related to Saudi Arabia by 2.9 mb/d, and the lowest to Qatar by 0.2 mb/d. Iran's consumption was 2.0 mb/d, accounting for 25.5 percent of total OPEC consumption².

Table 3.1. OPEC Primary Energy Consumption in 2012 (million tons oil equivalent)

	Oil	Natural gas	Coal	Nuclear energy	Hydroelectricity	Renewable energies	Total
Middle East members	280.8	328.6	0.9	0.3	2.9	0.0	613.7
Saudi Arabia	129.7	92.5	0.0	0.0	0.0	0.0	222.2
Iran	89.6	140.5	0.9	0.3	2.9	*	234.2
Kuwait	20.9	15.5	0.0	0.0	0.0	0.0	36.4
United Arab Emirates	32.6	56.6	0.0	0.0	0.0	*	89.3
Qatar	8.0	23.5	0.0	0.0	0.0	0.0	31.6
Other members	64.2	59.9	0.2	0.0	21.4	0.2	145.7
OPEC¹	345.0	388.5	1.1	0.3	24.3	0.2	759.4

Source: BP Statistical Review of World Energy 2013

¹ Excludes Iraq, Libya, Nigeria, and Angola.

Table 3.2. OPEC Crude Oil Proven Reserves (billion barrels)

	Year-end			Percentage change		Share (percent)	
	2010	2011	2012	2011	2012	2011	2012
Middle East members	754.7	786.3	796.1	4.2	1.2	65.6	65.7
Saudi Arabia	264.5	265.4	265.9	0.3	0.2	22.1	21.9
Iran	151.2	154.6	157.0	2.1	1.6	12.9	13.0
Iraq	115.0	143.1	150.0	24.4	4.8	11.9	12.4
Kuwait	101.5	101.5	101.5	0.0	0.0	8.5	8.4
United Arab Emirates	97.8	97.8	97.8	0.0	0.0	8.2	8.1
Qatar	24.7	23.9	23.9	-3.2	0.0	2.0	2.0
Other members	412.7	412.7	415.9	0.0	0.8	34.4	34.3
OPEC	1,167.3	1,199.0	1,211.9	2.7	1.1	100.0	100.0

Source: BP Statistical Review of World Energy 2013

¹ Excludes Iraq, Nigeria, Libya, and Angola.

² Figures released by the BP are higher than those published by the Ministry of Petroleum.

Natural Gas Proven Reserves

OPEC natural gas proven reserves reached 95.2 trillion cubic meters at end-2012, showing 0.2 percent increase compared with the previous year-end. Iran and Qatar, with 33.6 and 25.1 trillion cubic meters, respectively, had the largest reserves among member countries.

Natural Gas Production¹

In 2012, OPEC natural gas production amounted to 657.0 billion cubic meters, indicating 6.2 percent increase compared with 2011. Iran, which had a production of 160.5 billion cubic meters, enjoyed the highest share of OPEC natural gas production by 24.4 percent. Qatar, with a production of 157.0 billion cubic meters of

natural gas and a share of 23.9 percent, ranked second.

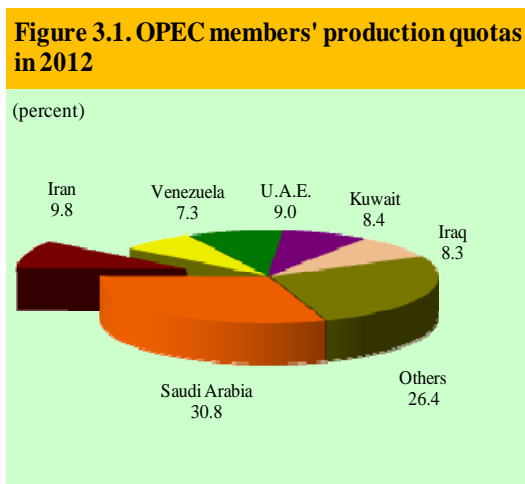


Table 3.3. OPEC Crude Oil Production¹

(thousand b/d)

	2010	2011	2012	Percentage change		Share (percent)	
				2011	2012	2011	2012
Middle East members	23,726.5	26,338.4	26,797.5	11.0	1.7	73.3	71.6
Saudi Arabia	9,955.1	11,143.8	11,529.6	11.9	3.5	31.0	30.8
Iran	4,338.5	4,358.2	3,680.1	0.5	-15.6	12.1	9.8
Iraq	2,480.0	2,801.1	3,115.0	12.9	11.2	7.8	8.3
Kuwait	2,517.6	2,880.2	3,127.3	14.4	8.6	8.0	8.4
United Arab Emirates	2,866.5	3,318.7	3,379.7	15.8	1.8	9.2	9.0
Qatar	1,568.7	1,836.4	1,965.8	17.1	7.0	5.1	5.3
Other members	11,026.5	9,615.2	10,607.1	-12.8	10.3	26.7	28.4
OPEC	34,753.0	35,953.6	37,404.8	3.5	4.0	100.0	100.0

Source: BP Statistical Review of World Energy 2013

¹ Includes NGL, shale oil, and oil sands as well.

Table 3.4. OPEC Oil Consumption¹

(thousand b/d)

	2010	2011	2012	Percentage change		Share (percent)	
				2011	2012	2011	2012
Middle East members	5,897.7	6,113.6	6,351.5	3.7	3.9	82.1	82.1
Saudi Arabia	2,747.7	2,835.4	2,935.1	3.2	3.5	38.1	38.0
Iran ²	1,886.8	1,878.4	1,970.6	-0.4	4.9	25.2	25.5
Kuwait	436.4	466.2	476.3	6.8	2.2	6.3	6.2
United Arab Emirates	606.6	699.0	719.8	15.2	3.0	9.4	9.3
Qatar	220.1	234.6	249.7	6.6	6.4	3.1	3.2
Other members	1,341.8	1,334.3	1,382.4	-0.6	3.6	17.9	17.9
OPEC³	7,239.4	7,447.9	7,733.9	2.9	3.8	100.0	100.0

Source: BP Statistical Review of World Energy 2013

¹ Includes domestic demand for oil, aviation and marine fuels, fuel for refineries and oil wastes.

² Data related to Iran are overestimated.

³ Excludes Iraq, Nigeria, Libya, and Angola.

¹ Includes commercial production and consumed gas.

Natural Gas Consumption

In 2012, OPEC natural gas consumption amounted to 431.7 billion cubic meters, showing 5.6 percent rise compared with the previous year. Consumption of natural gas

by Middle East members reached 365.2 billion cubic meters, up by 5.2 percent compared with 2011, and constituting 84.6 percent of total consumption.

Table 3.5. OPEC Natural Gas Proven Reserves (trillion cubic meters)

	Year-end			Percentage change		Share (percent)	
	2010	2011	2012	2011	2012	2011	2012
Middle East members	77.2	78.3	78.4	1.4	0.1	82.4	82.4
Saudi Arabia	8.0	8.2	8.2	2.5	0.0	8.6	8.6
Iran	33.1	33.6	33.6	1.5	0.0	35.4	35.6
Iraq	3.2	3.6	3.6	12.5	0.0	3.8	3.8
Kuwait	1.8	1.8	1.8	0.0	0.0	1.9	1.9
United Arab Emirates	6.1	6.1	6.1	0.0	0.0	6.4	6.4
Qatar	25.0	25.0	25.1	0.0	0.4	26.3	26.4
Other members	16.6	16.7	16.8	0.6	0.6	17.6	17.6
OPEC¹	93.8	95.0	95.2	1.3	0.2	100.0	100.0

Source: BP Statistical Review of World Energy 2013

¹Excludes Angola and Ecuador.

Table 3.6. OPEC Natural Gas Production (billion cubic meters)

	2010	2011	2012	Percentage change		Share (percent)	
				2011	2012	2011	2012
Middle East members	414.8	456.1	487.3	10.0	6.8	73.7	74.2
Saudi Arabia	87.7	92.3	102.8	5.2	11.4	14.9	15.6
Iran	146.2	151.8	160.5	3.8	5.7	24.5	24.4
Iraq	1.3	0.9	0.8	-30.8	-11.1	0.1	0.1
Kuwait	11.7	13.5	14.5	15.4	7.4	2.2	2.2
United Arab Emirates	51.3	52.3	51.7	1.9	-1.1	8.5	7.9
Qatar	116.7	145.3	157.0	24.5	8.1	23.5	23.9
Other members	164.0	162.5	169.7	-0.9	4.4	26.3	25.8
OPEC¹	578.8	618.6	657.0	6.9	6.2	100.0	100.0

Source: BP Statistical Review of World Energy 2013

¹Excludes Angola and Ecuador.

Table 3.7. OPEC Natural Gas Consumption (billion cubic meters)

	2010	2011	2012	Percentage change		Share (percent)	
				2011	2012	2011	2012
Middle East members	328.0	347.2	365.2	5.9	5.2	84.9	84.6
Saudi Arabia	87.7	92.3	102.8	5.2	11.4	22.6	23.8
Iran	144.6	153.5	156.1	-6.3	1.7	37.5	36.2
Kuwait	14.5	17.0	17.2	17.2	1.2	4.2	4.0
United Arab Emirates	60.8	62.5	62.9	2.8	0.6	15.3	14.6
Qatar	20.4	21.9	26.2	7.4	19.6	5.4	6.1
Other members	59.2	61.7	66.5	4.2	7.8	15.1	15.4
OPEC¹	387.1	408.9	431.7	5.6	5.6	100.0	100.0

Source: BP Statistical Review of World Energy 2013

¹Excludes Iraq, Nigeria, Libya, and Angola.

Iran

Production and Exports of Crude Oil

In 1391, Iran's average crude oil production was in adherence to the quotas set by the OPEC. According to the Ministry of Petroleum, average crude oil exports decreased by 11.3 percent to 1.8 mb/d while exports of oil products increased by 17.7 percent to 104 thousand b/d. Moreover, Iran's medium crude oil spot price decreased by 3.0 percent, compared with the previous year, to \$107.72 a barrel on average.

Domestic consumption of oil products reached 1,692 thousand b/d in 1391. Consumption of gas oil and gasoline reached 570 and 448 thousand b/d, accounting for 33.7 and 26.5 percent of total consumption of oil products, respectively.

Natural Gas

Domestic consumption of natural gas decreased by 0.5 percent to 152.0 billion cubic meters in 1391. The share of "residential, commercial, and industrial sectors" in total natural gas consumption was 54.7 percent, "power plants" 25.9 percent, and "major industries" 19.4 percent. Following a sharp reduction in the growth rate of GDP in 1391, natural gas consumption recorded -0.5 percent growth as against 1.3 percent growth of the year before.

Electricity

In 1391, Iran's electricity generation amounted to 248.2 billion kWh, showing 3.4 percent growth compared with the year

before. Of total generated electricity, 214.7 billion kWh (86.5 percent) was related to power plants affiliated to the Ministry of Energy and 33.5 billion kWh (13.5 percent) to other institutions (including private sector and large industries).

The highest amount of electricity was generated by gas and combined cycle power plants (113.3 billion kWh) and the lowest by hydroelectric, diesel, and wind power plants (12.7 billion kWh). Gas and combined cycle power plants experienced the highest growth in electricity generation by 9.8 percent. The amount of electricity generated by steam power plants declined by 4.2 percent.

Electricity consumption amounted to 195.2 billion kWh in 1391, up by 3.7 percent compared with the year before. The highest growth of consumption was related to street lighting with 14.4 percent, followed by the industrial sector with 5.1 percent. Electricity consumption by the residential sector grew by 4.3 percent, public sector 2.7 percent, commercial sector 1.8 percent, and agriculture sector 0.4 percent. Industrial and residential sectors had the highest shares in electricity consumption by 34.4 and 31.5 percent, respectively.

In 1391, electricity exports rose by 26.0 percent to 10.9 billion kWh. Electricity imports fell by 38.1 percent to 2.3 billion kWh. Therefore, net exports of electricity increased by 72.8 percent to 8.7 billion kWh. Iran imported electricity from Turkmenistan in this year and about 73 percent of electricity exports were related to Iraq.