

rude oil prices in the international market, which were on the rise until May 2015, started to decline in the following months up until January 2016. In February and March 2016, however, this trend was reversed and international crude oil prices soared again. Several different factors contributed to the fluctuations of crude oil in 2015. Continued tensions in the Middle East, reduction in the number of drilling rigs in the US, oil supply difficulties, and fall in the supply of unconventional oil were responsible for the increase in oil prices. On the other hand, excess oil supply and low demand, build-up of US crude stocks, deceleration of global growth, Iran's nuclear deal with the P5+1 and its return to the international market, rise in OPEC crude oil production, and appreciation of the US dollar vis-a-vis the euro were among factors that led to a fall in the price of crude oil.

In the year 2015, two Meetings of the OPEC Conference were convened. The 167<sup>th</sup> Meeting of the OPEC Conference was held in Vienna, capital city of Austria, on June 5, 2015 during which the OPEC production ceiling was kept unchanged at 30.0 mb/d. In this meeting, Iran expressed its readiness to return to the international markets, following the sanctions relief. The conference appointed Ivan Orellana, the Venezuelan Governor for OPEC, as chairman of the Board of Governors until end-December. At the 168<sup>th</sup> Meeting of the OPEC Conference

convened in Vienna on December 4, 2015, OPEC agreed to maintain its production ceiling of 30.0 mb/d. The conference also agreed that El-Badri continues as acting Secretary General. Meanwhile, Indonesia's resumption as a full member in the Organization was approved, bringing the total number of OPEC members to 13 in 2015. Iran also reconfirmed its readiness to return to the global market in this meeting.

# **OPEC**

# **Primary Energy Consumption**

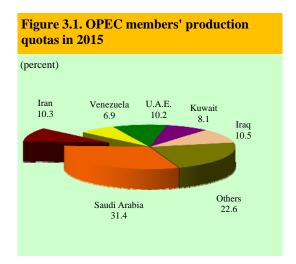
Primary energy consumption by the OPEC member countries increased from 846.2 million tons oil equivalent in 2014 to 878.3 million tons oil equivalent in 2015. Among primary energy sources, oil and natural gas are consumed by member countries to a large extent while hydroelectricity and coal are used sparingly. The lowest amount of consumption was related to nuclear energy and renewable energies in 2015. Middle East members (Saudi Arabia, Iran, Kuwait, United Arab Emirates, and Qatar), with a total consumption of 727.6 million tons oil equivalent, accounted for higher consumption as compared with the other members (Venezuela, Ecuador, and Algeria). Iran, with 267.2 million tons oil equivalent, ranked first in terms of primary energy consumption, followed by Saudi Arabia, with 264.0 million tons oil equivalent.

### **Crude Oil Proven Reserves**

At end-2015, crude oil proven reserves located in OPEC member countries reached 1,211.6 billion barrels, remaining relatively unchanged compared with 2014 year-end. Among OPEC member countries, the largest reserves by 300.9 billion barrels belonged to Venezuela, followed by Saudi Arabia with 266.6 billion barrels. Iran, with 157.8 billion barrels, ranked third among OPEC member countries.

#### **Crude Oil Production**

In 2015, average OPEC crude oil production, with 4.3 percent increase compared with 2014, amounted to 38.2 mb/d. Production of OPEC Middle East members, with 6.0 percent growth, totaled 28.9 mb/d and production of other members fell by 0.7 percent to 9.4 mb/d. The highest amount of production was related to Saudi Arabia with 12.0 mb/d and a share of 31.4 percent in total OPEC crude oil production.



#### Table 3.1. OPEC Primary Energy Consumption in 2015<sup>1</sup>

Table 3.1. OPEC Prin	(mi	illion tons oil e	quivalent)				
	Oil	Natural gas	Coal	Nuclear energy	Hydroelectricity		Total
Middle East members	331.5	388.2	2.9	0.8	4.1	0.2	727.6
Saudi Arabia	168.1	95.8	0.1	0.0	0.0	0.0	264.0
Iran	88.9	172.1	1.2	0.8	4.1	0.1	267.2
Kuwait	23.6	17.5	0.0	0.0	0.0	0.0	41.0
United Arab Emirates	40.0	62.2	1.6	0.0	0.0	0.1	103.9
Qatar	10.9	40.6	0.0	0.0	0.0	0.0	51.5
Other members	63.0	66.7	0.4	0.0	20.3	0.1	150.5
OPEC	394.5	454.9	3.3	0.8	24.4	0.3	878.3

Source: BP Statistical Review of World Energy 2016.

<sup>1</sup>Excludes Iraq, Nigeria, Libya, and Angola.

(billion barrels)

#### Table 3.2. OPEC Crude Oil Proven Reserves

		Year-end			ge change	Share (j	percent)
	2013	2014	2015	2014	2015	2014	2015
Middle East members	792.3	792.9	792.5	0.1	-0.1	65.5	65.4
Saudi Arabia	265.9	267.0	266.6	0.4	-0.1	22.0	22.0
Iran	157.8	157.8	157.8	0.0	0.0	13.0	13.0
Iraq	144.2	143.1	143.1	-0.8	0.0	11.8	11.8
Kuwait	101.5	101.5	101.5	0.0	0.0	8.4	8.4
United Arab Emirates	97.8	97.8	97.8	0.0	0.0	8.1	8.1
Qatar	25.1	25.7	25.7	2.4	0.0	2.1	2.1
Other members	416.8	418.2	419.2	0.1	0.2	34.5	34.6
OPEC	1,209.1	1,211.1	1,211.6	0.2	*	100.0	100.0

Source: BP Statistical Review of World Energy 2016.

# **Production Ceiling**

The OPEC Conference, in its 167<sup>th</sup> Meeting held in Vienna on June 5, 2015, kept the production ceiling unchanged at 30.0 mb/d. In the 168<sup>th</sup> Meeting held in Vienna on December 4, 2015, OPEC agreed to keep its production ceiling at 30.0 mb/d.

### **Oil Consumption**

In 2015, the average oil consumption in OPEC member countries<sup>1</sup> amounted to 9.0 mb/d, indicating 1.3 percent increase compared with 2014. The highest amount of consumption

was related to Saudi Arabia by 3.9 mb/d and the lowest to Ecuador, by 0.3 mb/d. Iran's consumption was 1.9 mb/d, accounting for 21.8 percent of total OPEC consumption<sup>2</sup>.

### **Natural Gas Proven Reserves**

OPEC natural gas proven reserves reached 95.2 trillion cubic meters at end-2015, remaining unchanged compared with the previous year-end. Iran and Qatar, with 34.0 and 24.5 trillion cubic meters, had the largest reserves among member countries.

(thousand b/d)

(thousand b/d)

# Table 3.3. OPEC Crude Oil Production<sup>1</sup>

				Percentage change		Share (	percent)
	2013	2014	2015	2014	2015	2014	2015
Middle East members	26,822.2	27,222.7	28,860.4	1.5	6.0	74.3	75.5
Saudi Arabia	11,393.1	11,504.7	12,013.9	1.0	4.4	31.4	31.4
Iran	3,611.3	3,735.5	3,920.0	3.4	4.9	10.2	10.3
Iraq	3,141.0	3,285.3	4,030.7	4.6	22.7	9.0	10.5
Kuwait	3,133.7	3,119.8	3,095.9	-0.4	-0.8	8.5	8.1
United Arab Emirates	3,639.8	3,684.7	3,901.8	1.2	5.9	10.1	10.2
Qatar	1,903.3	1,892.6	1,898.1	-0.6	0.3	5.2	5.0
Other members	9,798.3	9,429.7	9,365.1	-3.8	-0.7	25.7	24.5
OPEC	36,620.5	36,652.3	38,225.5	0.1	4.3	100.0	100.0

Source: BP Statistical Review of World Energy 2016.

<sup>1</sup> Includes NGL, shale oil, and oil sands.

### Table 3.4. OPEC Oil Consumption<sup>1</sup>

				Percentage change		Share (	percent)
	2013	2014	2015	2014	2015	2014	2015
Middle East members	7,085.4	7,394.3	7,597.3	4.4	2.7	83.7	84.9
Saudi Arabia	3,469.3	3,732.0	3,894.7	7.6	4.4	42.3	43.5
Iran <sup>2</sup>	2,048.2	2,013.3	1,947.0	-1.7	-3.3	22.8	21.8
Kuwait	512.9	513.5	530.9	0.1	3.4	5.8	5.9
United Arab Emirates	765.2	831.8	901.0	8.7	8.3	9.4	10.1
Qatar	289.8	303.7	323.7	4.8	6.6	3.4	3.6
Other members	1,452.8	1,437.9	1,352.9	-1.0	-5.9	16.3	15.1
OPEC <sup>3</sup>	8,538.3	8,832.2	8,950.3	3.4	1.3	100.0	100.0

Source: BP Statistical Review of World Energy 2016.

<sup>1</sup>Includes domestic demand for oil, aviation and marine fuels, fuel for refineries and oil wastes.

<sup>2</sup>Data related to Iran are overestimated.

<sup>3</sup>Excludes Iraq, Nigeria, Libya, and Angola.

<sup>1</sup>Excludes Iraq, Nigeria, Libya, and Angola.

<sup>2</sup>Estimations released by the BP are higher than figures published by the Ministry of Petroleum.

# **Natural Gas Production**<sup>1</sup>

OPEC natural gas production amounted to 730.3 billion cubic meters in 2015, indicating 4.7 percent increase. Iran, which had a production of 192.5 billion cubic meters, enjoyed the highest share of OPEC natural gas production by 26.4 percent. Qatar, with a production of 181.4 billion cubic meters of natural gas and a share of 24.8 percent, ranked second.

## **Natural Gas Consumption**

OPEC natural gas consumption amounted to 505.5 billion cubic meters in 2015, showing 6.2 percent rise compared with the previous year. Consumption of natural gas by Middle East members reached 431.3 billion cubic meters, up by 6.0 percent compared with 2014 and constituting 85.3 percent of total consumption.

Table 3.5. OPEC Natural Gas Proven Reserves					(trillion cubic meters)			
		Year-end			Percentage change			
	2013	2013 2014 2015			2015	2014	2015	
Middle East members	78.4	78.4	78.4	0.0	0.0	82.4	82.4	
Saudi Arabia	8.2	8.3	8.3	1.2	0.0	8.7	8.7	
Iran	34.0	34.0	34.0	0.0	0.0	35.7	35.7	
Iraq	3.6	3.7	3.7	3.0	0.0	3.9	3.9	
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	24.7	24.5	24.5	-0.6	0.0	25.8	25.7	
Other members	16.7	16.7	16.7	0.0	0.0	17.6	17.6	
OPEC <sup>1</sup>	95.0	95.2	95.2	0.0	0.0	100.0	100.0	

Source: BP Statistical Review of World Energy 2016.

<sup>1</sup>Excludes Angola and Ecuador.

(billion cubic meters)

(billion cubic meters)

## Table 3.6. OPEC Natural Gas Production

				Percentag	Percentage change		percent)
	2013	2014	2015	2014	2015	2014	2015
Middle East members	516.5	528.7	552.1	2.3	4.4	75.8	75.6
Saudi Arabia	100.0	102.4	106.4	2.3	3.9	14.7	14.6
Iran	166.8	182.0	192.5	9.2	5.8	26.1	26.4
Iraq	1.2	0.9	1.0	-23.3	11.1	0.1	0.1
Kuwait	16.3	15.0	15.0	-7.9	0.0	2.2	2.1
United Arab Emirates	54.6	54.2	55.8	-0.7	3.0	7.8	7.6
Qatar	177.6	174.1	181.4	-2.0	4.2	25.0	24.8
Other members	157.4	168.8	178.2	7.2	5.6	24.2	24.4
OPEC <sup>1</sup>	673.9	697.5	730.3	3.5	4.7	100.0	100.0

Source: BP Statistical Review of World Energy 2016.

<sup>1</sup>Excludes Angola and Ecuador.

# Table 3.7. OPEC Natural Gas Consumption<sup>1</sup>

				Percentage change		Share (p	ercent)
	2013	2014	2015	2014	2015	2014	2015
Middle East members	391.5	407.0	431.3	4.0	6.0	85.5	85.3
Saudi Arabia	100.0	102.4	106.4	2.3	3.9	21.5	21.0
Iran	162.9	180.0	191.2	10.5	6.2	37.8	37.8
Kuwait	18.6	18.6	19.4	0.0	4.3	3.9	3.8
United Arab Emirates	67.3	66.3	69.1	-1.5	4.2	13.9	13.7
Qatar	42.7	39.7	45.2	-7.0	13.9	8.3	8.9
Other members	64.5	68.9	74.2	6.8	7.7	14.5	14.7
OPEC	456.0	475.9	505.5	4.4	6.2	100.0	100.0

Source: BP Statistical Review of World Energy 2016.

<sup>1</sup>Excludes Iraq, Nigeria, Libya, and Angola.

<sup>&</sup>lt;sup>1</sup>Includes commercial production and consumed gas.

#### Iran

#### **Production and Exports of Crude Oil**

In 1394, Iran's average crude oil production increased in light of the sanctions relief. According to the Ministry of Petroleum, the average crude oil exports increased by 6.8 percent to 1.4 mb/d and exports of oil products rose by 47.5 percent to 176 thousand b/d. On the other hand, Iran's medium crude oil spot price declined by 46.0 percent compared with the previous year, to reach \$44.9 a barrel on average.

Domestic consumption of oil products reached 1,545 thousand b/d in 1394, indicating 0.8 percent decrease compared with the year before. Consumption of gas oil and gasoline reached 548 thousand b/d and 463 thousand b/d, accounting for respectively 35.4 and 29.9 percent of total consumption of oil products.

### **Natural Gas**

With the development of gas supply systems in urban and rural areas, domestic consumption of natural gas increased by 4.8 percent to 180.3 billion cubic meters in 1394. The share of "residential, commercial, and industrial sectors" in total natural gas consumption was 49.4 percent, "power plants" 32.2 percent, and "major industries" 18.4 percent.

#### Electricity

In 1394, Iran's electricity generation amounted to 280.7 billion kWh, showing 2.3 percent growth compared with the year before. Of total generated electricity, 123.2 billion kWh (43.9 percent) was related to the power plants affiliated to the Ministry of Energy and 157.5 billion kWh (56.1 percent) to other institutions (including private sector and large industries).

The highest amount of electricity generated by the power plants affiliated to the Ministry of Energy was related to steam power plants (61.7 billion kWh) and the lowest to hydroelectric, diesel, wind, and nuclear power plants (17.2 billion kWh). The amount of electricity generated by power plants affiliated to the Ministry of Energy experienced 4.7 percent reduction in 1394, mainly attributable to the continuation of the privatization policy (privatization of Soltaniyeh Gas Power Plant) and decline in the production of some low-yield gas power plants. In this year, the highest reduction by 23.1 percent was related to gas power plants.

Electricity consumption amounted to 227.3 billion kWh in 1394, up by 3.5 percent compared with 1393. The highest growth of consumption was related to the public sector with 12.3 percent. Growth in electricity consumption by commercial sector was 8.3 percent, residential sector 6.9 percent, agriculture sector 2.6 percent, and for street lighting 4.7 percent. Electricity consumption by the industrial sector, however, experienced 2.8 percent decrease. Residential and industrial sectors enjoyed the highest shares in electricity consumption by respectively 33.5 and 31.8 percent in 1394.