

فــركــز الإحــصــاء STATISTICS CENTRE

# Energy Water

Abu Dhabi Emirate -2014

in



in Figures



Release date: November 2015

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# Introduction

Electricity Company, Abu Dhabi Future Energy Company – Masdar.

This report presents statistics on key energy and water figures in the Emirate of Abu Dhabi for the year 2014, compromising statistics of Oil and Natural Gas, Statistics of Electrical Energy and Desalinated Water Consumption. The main sources of these statistics are Abu Dhabi National Oil Company - ADNOC, TAKREER, Abu Dhabi Water and

# **Key points**

# 1. Oil and Refined Petroleum Statistics

Oil and gas sector is one of the most important pillars of Abu Dhabi economy, forming a large share of the GDP. The total production of Abu Dhabi crude oil in 2014 was 1,002,179 thousand barrels, of which 808,131 thousand barrels were exported to other countries. Crude oil exports represented about 80.6% of the production of the same year. The amount of production in 2014 increased by 5,251 thousand barrels or 0.5 % compared to 2013 and as a result, petroleum products increased in 2014 by 0.7% compared to 2013.

## Table 1: Crude oil production and exports

(Thousand barrels)

Year	2010	2011	2012	2013	2014
Production *	825,291	913,191	948,200	996,928	1,002,179
Exports	744,525	833,070	873,515	920,687	808,131

Source: Abu Dhabi National Oil Company - ADNOC

\* Production exclude condensates

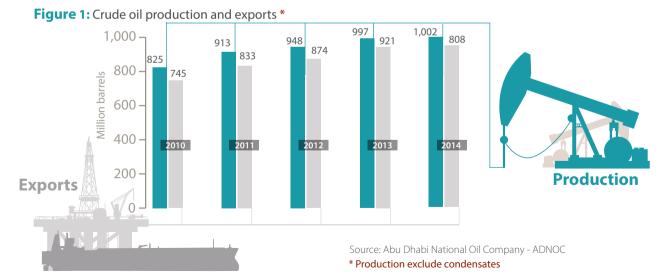
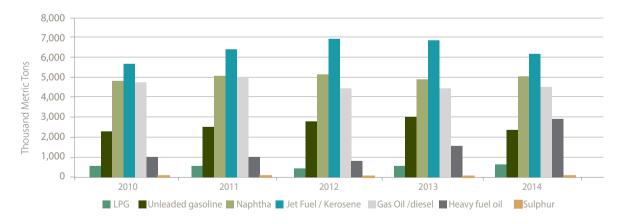


 
 Table 2: Production of refined petroleum products
 (Thousand Metric Tons)

Product Type	2010	2011	2012	2013	2014
Total	19,223	20,702	20,658	21,516	21,657
LPG	579	540	453	591	618
Unleaded gasoline	2,284	2,537	2,800	3,056	2,371
Naphtha	4,813	5,071	5,137	4,912	5,048
Jet Fuel / Kerosene	5,684	6,422	6,921	6,866	6,162
Gas Oil /diesel	4,775	5,024	4,442	4,477	4,482
Heavy fuel oil	1,048	1,067	860	1,564	2,927
Sulphur	39	41	46	50	49

# **Figure 2:** Production of refined petroleum products



Source: Abu Dhabi National Oil Company – ADNOC, TAKREER.

# 2. Natural Gas Statistics

The importance of natural gas stems from the variation of its uses in the Emirate of Abu Dhabi, such as liguefied fuel and other products such as propane, butane and pentane. It is also used in industries such as iron and steel, aluminum, cement. Natural gas is also re-injected in the oil wells to increase productivity and maintain pressure oil reservoir. The total production of Abu Dhabi Natural Gas in 2014 was 2,799 billion cubic feet, which is an increase of 1.6% compared to 2013.

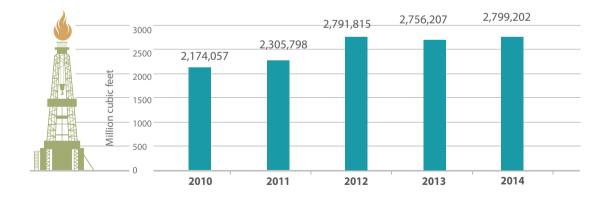
## Table 3: Natural gas production

Million cubic feet

2010	2011	2012	2013	2014
2,174,057	2,305,798	2,791,815	2,756,207	2,799,202
5,956	6,317	7,628	7,551	7,669
	2,174,057	2,174,057 2,305,798	2,174,057 2,305,798 2,791,815	2,174,057 2,305,798 2,791,815 2,756,207

Source: Abu Dhabi National Oil Company - ADNOC

## Figure 3: Natural gas production

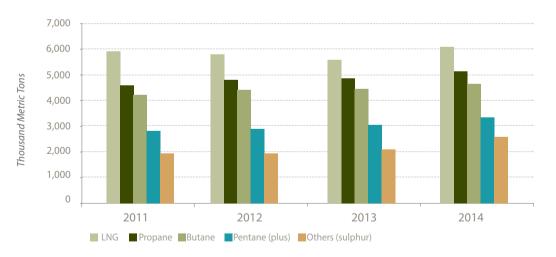


Thousand Metric Tons

Year	20	011
Product type	Production	Exports
LNG	5,888	5,759
Propane	4,509	4,423
Butane	4,171	4,037
Pentane (plus)	2,772	2,822
Others (sulphur)	1,956	1,954
Total	19,295	18,995

Source: Abu Dhabi National Oil Company – ADNOC Production excludes condensates

## Figure 4: Production of Liquefied Natural Gas Products\*



Source: Abu Dhabi National Oil Company – ADNOC Production excludes condensates

Source: Abu Dhabi National Oil Company – ADNOC

20	2012		013	2014	
Production	Exports	Production	Exports	Production	Exports
5,760	5,601	5,531	5,441	6,050	5,856
4,734	4,643	4,885	3,672	5,146	4,509
4,317	4,239	4,447	3,375	4,627	4,089
2,888	2,835	3,024	2,143	3,352	2,876
1,958	1,956	2,117	2,187	2,579	2,490
19,656	19,274	20,003	16,818	21,754	19,821

# **3. Electrical Energy Statistics**

Water and electricity sector is deemed to be one of the most important sectors supporting development and serving the community. It also provides basic and necessary services for Economic activities, Citizens and Non- Citizens. The total electricity production by companies in the Emirate of Abu Dhabi in 2014 was about 58,343 GWh, an increase of about 39.9% during the period since 2010. The electric power consumed during the same period increased by 34.9%, reaching 52,841 GWh. This includes the internal consumption by power stations as well as losses through the network. Energy is produced through generators by burning fossil fuels where natural gas forms 99.83% of the total fuel consumed due to economic, technical and environmental considerations.

## Table 5: Electrical power statistics

(MWh)

ltem	2010	2011	2012	2013	2014
Total electricity production	41,712,189	46,314,248	50,378,419	51,936,813	58,342,545
Transferred from EMAL & TAKREER	146,594	52,655	2,828	27,982	11,802
Total	41,858,783	46,366,903	50,381,247	51,964,795	58,354,347
Electricity exports	2,685,643	3,115,984	3,264,421	2,698,226	5,513,310
Electricity consumption *	39,173,140	43,250,919	47,116,826	49,266,569	52,841,037
Electrical consumption per capita**	18.70	20.01	20.35	19.77	19.89
Electricity planned capacity (MW)	9,247	10,875	10,867	10,917	12,571

Source: Abu Dhabi Water and Electricity Company - ADWEC.

\*Consumption includes internal electrical consumption by power stations & technical losses through the network in Abu Dhabi Emirate \*\* Data per capita has been updated as a result of updates on population estimates in the Emirate of Abu Dhabi 2006- 2014

Figure 5 : The Relative distribution of Electricity Consumption in the Emirate of Abu Dhabi by Region 2014 Abu Dhabi



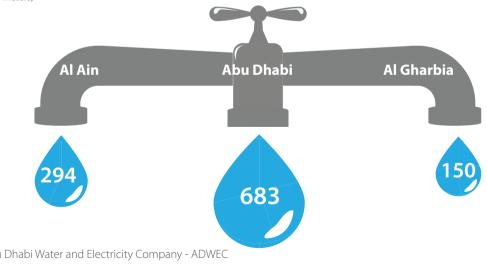
# 4. Desalinated water consumption

The Emirate of Abu Dhabi consumed from desalinated water about 1,127 MCM in 2014, with a daily average of 3 MCM and per capita average daily consumption of 1.16 cubic meters. Consumption of desalinated water increased by 29.1% from 2010 and this rise is the result of increasing demand on water from various sectors.

 
 Table 6: Desalinated water consumption by region
 (Million cubic meters)

593 259	653 286	657 293	683
259	286	202	
		295	294
110	120	132	150
962	1,059	1,083	1,127
	962	962 1,059	962 1,059 1,083

Figure 6: Desalinated water consumption by region, 2014 (Million cubic meters)



Source: Abu Dhabi Water and Electricity Company - ADWEC

# 5. Renewable energy

In the recent years, Abu Dhabi Government has paid particular attention to renewable energy as part of its efforts to diversify energy sources in Abu Dhabi. This culminated in the implementation of several renewable energy projects, namely electricity generation from solar energy, by Abu Dhabi Future Energy Company – Masdar. As the projects became operational, the production of electricity from solar energy reached 262,667 MWh in 2014, marking a growth of 449% compared with 2013. This increase is due to the commencement of operation of the Shams solar power station in late 2013, while 2014 was a full year of operations.

### Table 7: Renewable energy statistics (MM/b)

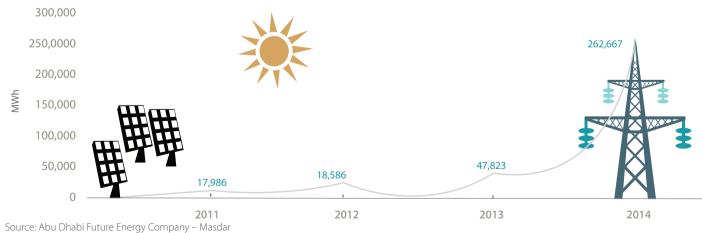
(1010011)				
Item	2011	2012	2013*	2014*
Electricity Generation	17,986	18,586	47,823	262,667
Export of Electricity	11,291	17,131	43,754	232,228
Import of Electricity	10,668	18,383	34,903	50,605
Electricity planned capacity (MW)	11	11	111	111

Source: Abu Dhabi Future Energy Company – Masdar

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\* Data in 2013 & 2014 include Shams solar power station

# Figure 7: Electricity generation form renewable energy, 2011-2014 \*



\* Data in 2013 & 2014 include Shams solar power station



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