



Electricity and Water Statistics

2010-2011

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Statistics Centre- Abu Dhabi

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Introduction

This publication presents electricity and water statistics in the Emirate of Abu Dhabi for the years 2010- 2011. The main sources for these statistics are the Economic Surveys 2010- 2011, which were carried out by the Statistics Centre – Abu Dhabi (SCAD), in addition to administrative data from the companies which produce and distribute electricity and water.

This type of statistics provides governments with data which are useful for creating plans and policies that meet current and future needs, in addition to providing a statistical database to academics and researchers.

Key Points

- Total production and distribution of the electricity and water activity increased from AED 28.1 billion in 2010 to AED 30.7 billion in 2011, an increase of 9.2%.
- Value added of production and distribution of the electricity and water activity increased from AED 15.9 billion in 2010 to AED 18.6 billion in 2011, an increase of 16.9%.
- Intermediate consumption of production and distribution of the electricity and water activity amounted to AED 12.1 billion in 2011.
- Number of employees in production and distribution of the electricity and water activity reached 7,538 workers in 2011, a decrease of 2.5% compared with 2010.
- Available electricity production increased from 41,858.8 GWH in 2010 to 46,366.9 GWH in 2011, an increase of 10.8%.
- Production of available desalinated water increased from 211,793 million imperial gallons in 2010 to 219,788 million imperial gallons in 2011, an increase of 3.8%.
- Electricity consumption increased from 39,173.1 GWH in 2010 to 43,250.9 GWH in 2011, an increase of 10.4%.
- Consumption of desalinated water increased from 192,028 million imperial gallons in 2010 to 211,510 million imperial gallons in 2011, an increase of 10.1%.

Electricity and Water Statistics

Electricity and water production sector has a great significance among the various economic sectors, given its big role in the provision of basic services that are necessary for Citizens, Non-Citizens and other economic activities; therefore the Emirate of Abu Dhabi pays attention to the development of this sector.

This sector saw a remarkable growth after establishing the Abu Dhabi Water and Electricity Authority (ADWEA) in March 1998, a public supervisory body responsible for implementing government policy regarding the electricity and water sector in the Emirate.

In 2011, the electricity generation capacity for the Emirate of Abu Dhabi was equivalent to 10,875 MW, compared with 9,247 MW in 2010, while the desalinated water capacity was approximately 683 million gallons per day in 2011 compared with 583 million gallons per day in 2010.

Production

Table 1 shows key statistics of the electricity and water activity (data derived from the Economic Surveys 2010 – 2011, which were carried out by SCAD). The contribution of this activity in the non-oil Gross Domestic Product (GDP) rose from 4.9% in 2010 to 5.1% in 2011.

Table 1: Key statistics of the electricity and water activities 2010-2011

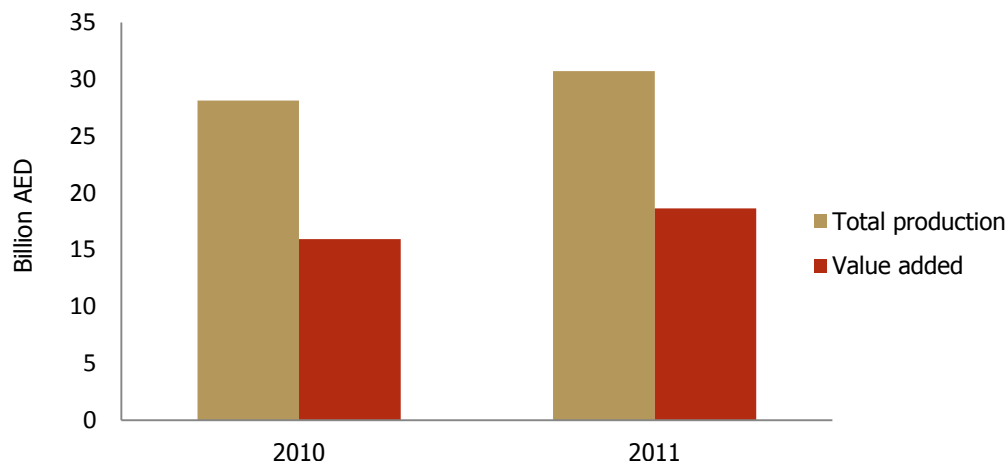
Indicators	2010	2011
Share in GDP at current prices (%)	2.5	2.2
Share in non-oil GDP at current prices (%)	4.9	5.1
Gross output (% of GDP at current prices)	4.4	3.6
Total production (Million AED)	28,126	30,705
Value added (Million AED)	15,934	18,631
Number of employees	7,733	7,538

Source: Statistics Centre - Abu Dhabi, Economic Surveys 2010 – 2011

The total production value of the production and distribution of electricity and water activity in 2011 amounted to AED 30.7 billion, an increase of 9.2% compared with 2010. Average production per employee in 2011 amounted to AED 4,073.4 thousand an increase of 12% compared with 2010, while the value added amounted to AED 18.6 billion in 2011, an increase of 16.9% compared with

2010. Average value added per employee in 2011 amounted to AED 2,471.6 thousand, a rise of 19.9% compared with 2010.

Figure 1: Total production and value added of the electricity and water activity, 2010 - 2011



Source: Statistics Centre - Abu Dhabi, Economic Surveys 2010- 2011

The electricity production in the Emirate of Abu Dhabi in 2011 totaled 46,366.9 GWH an increase of 10.8% compared with 2010, including the electricity generated by companies 46,314.2 GWH and the electricity transferred from outside electricity production activity was equivalent to 52.7 GWH.

Table 2: Electricity generation in the Emirate of Abu Dhabi, 2010 – 2011

(MWH)

Item	2010	2011
Total electricity production by electricity production companies	41,712,189	46,314,248
Electricity transferred from outside electricity production activity	146,594	52,655
Total	41,858,783	46,366,903

Source: Abu Dhabi Water and Electricity Company (ADWEC)

Production of available desalinated water in the Emirate of Abu Dhabi in 2011, including the supply from Al Fujairah Station, was equivalent to 219,788 million imperial gallons, an increase of 3.8% compared with 2010.

Table 3: Desalinated water production in the Emirate of Abu Dhabi, 2010 – 2011

(Million Imperial Gallons)

Item	2010	2011
Total of available desalinated water	211,793	219,788
Production	183,561	187,982
Supply from Al - Fujairah station	28,232	31,806

Source: Abu Dhabi Water and Electricity Company (ADWEC)

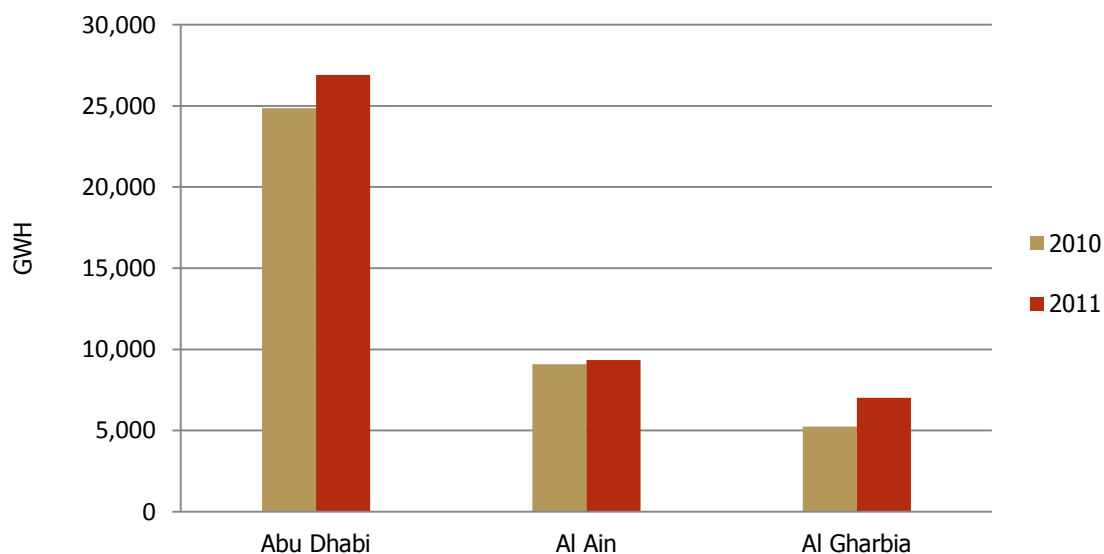
Consumption

Electricity consumption

Electricity consumption in the Emirate of Abu Dhabi reached 43,250.9 GHW in 2011, an increase of 10.4% compared with 2010. The Abu Dhabi region consumed the largest share of electricity with 62.2%, followed by the Al Ain region with 21.6% and the Al Gharbia region with 16.2%.

The Al Gharbia region had the largest consumption growth rate in 2010 – 2011 with 33.8%, mainly due to the increase of industrial investments. The growth rates in the Abu Dhabi and Al Ain regions were 8.2% and 2.9% respectively.

Figure 2: Electricity consumption in the Emirate of Abu Dhabi by region, 2010 - 2011



Source: Statistics Centre - Abu Dhabi, Economic Surveys 2010- 2011

Table (4) displays the percentage distribution of electricity consumption by sector. The two sources, Abu Dhabi Distribution Company and Al Ain Distribution Company, calculate the value of electricity consumption based on meter reading and billing values. The household sector was the largest consumer of electricity in the Emirate of Abu Dhabi during the years 2010 and 2011, followed by the commercial sector and the government sector. The industrial sector was the lowest consumer of electricity compared with other sectors.

Table 4: Percentage of electricity consumption by sector, 2010 – 2011

(%)

Sector	2010	2011
Total	100	100
Domestic	35.9	30.7
Commercial	32.1	28.8
Government	16.1	25.1*
Agriculture	8.2	7.0
Industry	7.2	8.0
Other	0.6	0.4

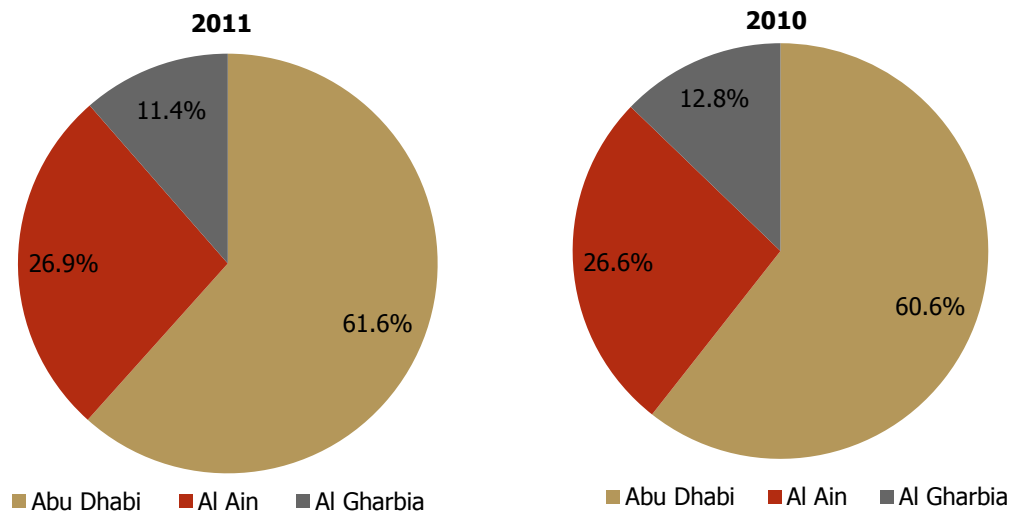
Source: Abu Dhabi Distribution Company, Al Ain Distribution Company

*Note: New meters were installed from 2008 and the cumulative reading of those meter were billed in 2011 for the Western Region (Al Marfa)

Desalinated water consumption

Consumption of desalinated water in the Emirate Abu Dhabi reached about 211,510 million imperial gallons in 2011, an increase of 10.1% compared with 2010. The Abu Dhabi region consumed the largest share of desalinated water with 61.6% or 130,348 million imperial gallons, followed by the Al Ain and the Al Gharbia regions with 26.9% and 11.4% respectively. Consumption of desalinated water by sector reveals that the household sector was the largest consumer of desalinated water in 2010 – 2011 with 54.3%, followed by the government sector with 22.2%.

Figure 3: Percentage distribution of desalinated water by region, 2011



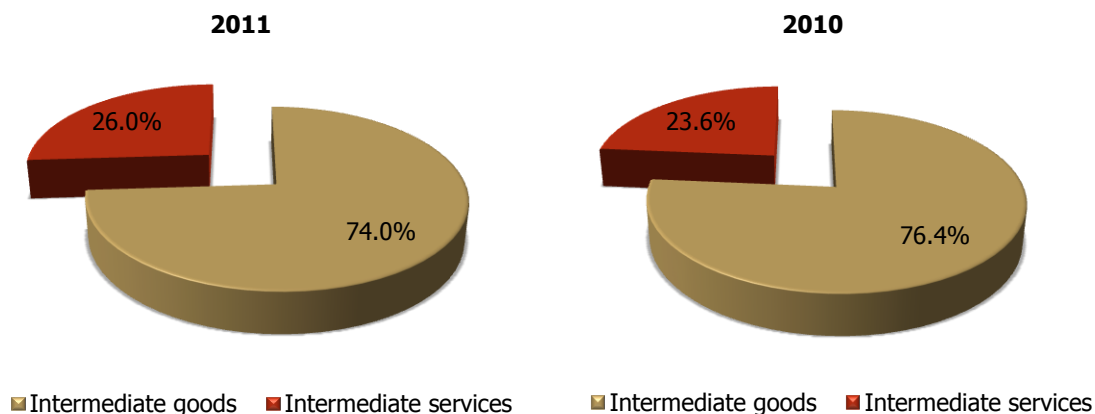
Source: Abu Dhabi Water and Electricity Company (ADWEC)

Intermediate consumption

Results of the Economic Surveys reveal that intermediate consumption in the production and distribution of electricity and water activity amounted to AED 12.1 billion in 2011.

In 2011, intermediate goods accounted for 74% of the total consumption of the activity compared with 26% for intermediate services. Fuel, oil and gas accounted for the largest consumption rate (88.8%) of the total consumption of intermediate goods and 65.7% of the total intermediate consumption.

Figure 4: Percentage distribution of intermediate goods and services, -20102011



Source: Statistics Centre - Abu Dhabi, Economic Surveys 2010- 2011

Fuel consumption in the electricity and water activity was equivalent to 543,643 billion BTU in 2011, an increase of 8.2% compared with 2010.

Table (5) shows that natural gas was the main type of fuel used in the production of electricity and water with a highest share of 97.1% in 2011.

Table 5: Fuel consumption in electricity and water activity, 2010 – 2011

(Billion BTU)

Item	2010	2011
Total	502,487	543,643
Natural gas	467,126	528,114
Crude oil	21,918	6,062
Gas oil	13,439	9,467
Fuel oil	4	0

Source: Abu Dhabi Water and Electricity Company (ADWEC)

Investment

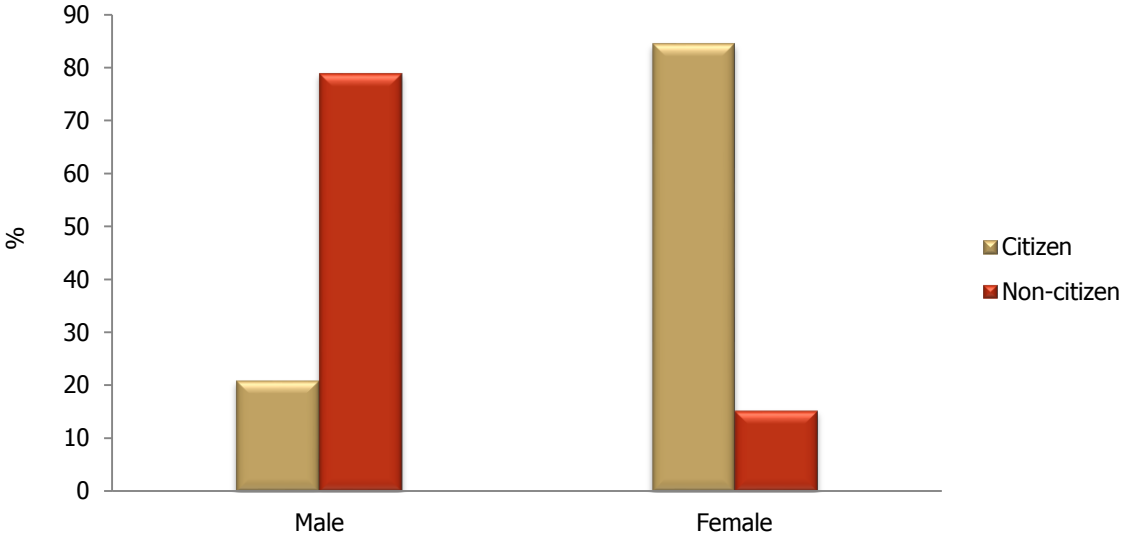
Results of the industrial survey, carried out by SCAD, show that fixed capital formation in the electricity and water activity in 2010 – 2011 amounted to AED 25.2 billion.

In 2011, the total electricity production for the Emirate of Abu Dhabi was equivalent to 10,875 MW, an increase of 17.6% compared with 2010. Meanwhile the total capacity of water desalination was approximately 683 million gallons per day, an increase of 17.2% compared with 2010.

Number of employees

Results of the industrial survey show that the number of employees working in the production and distribution of electricity and water activity reached 7,538 workers in 2011, a decrease of 2.5% compared with 2010. The total number of male employees in 2011 was 6,705, while the total number of female employees was 833. Citizen male employees represented 21% of the total male employees and citizen female employees represented 84.6% of the total female employees in 2011.

Figure 5: Percentage distribution of employees by citizenship and gender, 2011



Source: Statistics Centre - Abu Dhabi, Economic Surveys 2010- 2011

Explanatory Notes

Total production: the total value of main and secondary revenues.

Value added: the value of total production minus the value of intermediate consumption.

Intermediate consumption: the total value of intermediate goods and services consumed as inputs.

Capital formation: the total value of purchases and additions of fixed assets minus the value of fixed assets sold during the reference year.

Technical Notes

Scope of the work

This report includes statistics on the electricity and water activity in the Emirate of Abu Dhabi; it contains two types of data: administrative data and data derived from economic surveys.

Administrative data, supplied to SCAD by the Abu Dhabi Water and Electricity Authority, includes data of Abu Dhabi Water and Electricity Company, Abu Dhabi Distribution Company and Al Ain Distribution Company. The report also contains data derived from economic surveys, which have been consistently carried out by SCAD since 2007.

Reference period

Electricity and water statistics produced by SCAD are derived from the annual administrative records provided by Abu Dhabi Water and Electricity Authority (ADWEA) at the beginning of each year covering the previous year. Economic surveys collect financial statements of the establishments operating in the electricity and water activity.

Additional information

For more detailed information about industry and business and other official statistics, please visit the link on the SCAD web site: <http://www.scad.ae/en/Pages/default.aspx>

Abbreviations

SCAD: Statistics Centre – Abu Dhabi

GDP: Gross Domestic Product

MWH: Megawatt per hour

GWH: Gigawatt per hour

BTU: British thermal unit