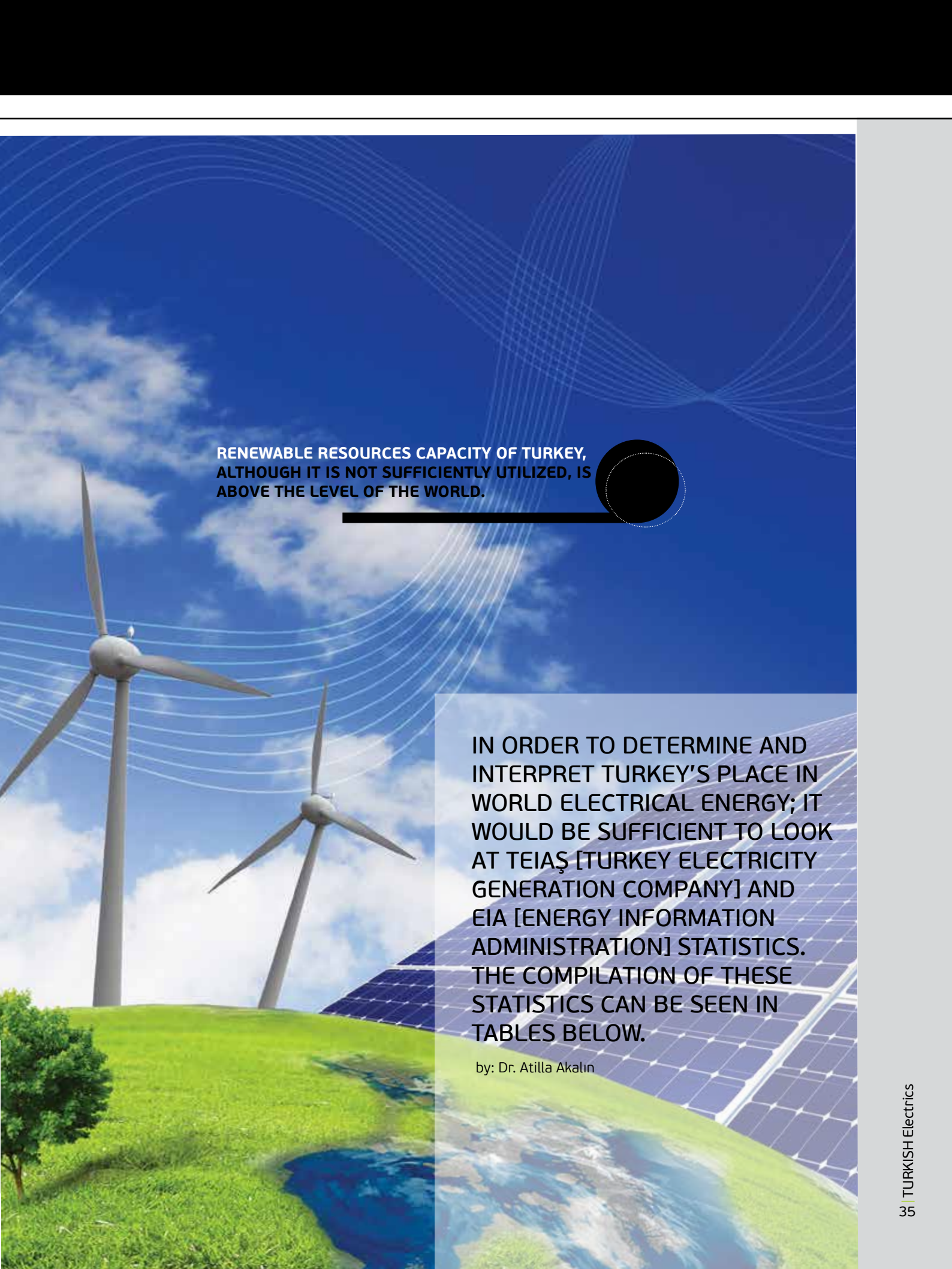


TURKEY'S PLACE IN WORLD ELECTRICAL ENERGY



**RENEWABLE RESOURCES CAPACITY OF TURKEY,
ALTHOUGH IT IS NOT SUFFICIENTLY UTILIZED, IS
ABOVE THE LEVEL OF THE WORLD.**

**IN ORDER TO DETERMINE AND
INTERPRET TURKEY'S PLACE IN
WORLD ELECTRICAL ENERGY; IT
WOULD BE SUFFICIENT TO LOOK
AT TEİAŞ [TURKEY ELECTRICITY
GENERATION COMPANY] AND
EIA [ENERGY INFORMATION
ADMINISTRATION] STATISTICS.
THE COMPILATION OF THESE
STATISTICS CAN BE SEEN IN
TABLES BELOW.**

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As can be seen from the data base (2012), Turkey is producing 1.5 % (\$ 800 billion / year) of World Gross Domestic Product which is equivalent to (\$ 52 trillion / year). Considering this, it can be argued that 76 million populated Turkey's Gross Domestic Product per capita is around \$ 10,500 / year. This value for world is \$ 7,500 / year, for U.S. \$ 41,500 / year, for Japan, \$ 36,500 / year, for EU,

\$ 28,000 / year and finally for China is about \$ 3,000 / year. Turkey's share in World Electrical Power Production and Consumption is 1.1% (about 21,500 TWh / year) of the total volume of approximately 240 TWh / year of world production and consumption. This value for U.S. is about 4,000 TWh / year, for EU 3800 TWh / year, for China 4700 TWh / year and for Japan 1,000 TWh / year.

World -Eu/Europe and Turkey Electrical Energy Volume and Shares of Resources

2012

		OVER	Fossil Fuels			TOTAL	Nuclear	Renewable Resources			TOTAL
		TOTAL	Coal	Oil	N. Gas			Hydro	Wind	Others	
WORLD	TWh / year %	21.412 100.0%	8.429 39.4%	951 4.4%	4.957 23.2%	14.337 67%	2.438 11.4%	3.355 16.6%	557 2.6%	525 2.5%	4.637 21.7%
US	TWh / year %	4.074 100.0%	1.547 38.0%	20.0 0.5%	1.218 29.9%	2.785 68.4%	770 18.9%	281 6.9%	137 3.4%	101 2.5%	519 12.7%
EU / Europe	TWh / year %	3.676 100.0%	883 24.0%	75.0 2.0%	863 23.5%	1.821 49.5%	869 23.6%	548 14.9%	212 5.8%	226 6.1%	986 26.8%
CHINA	TWh / year %	4.730 100.0%	3.617 76.5%	13.0 0.3%	70.0 1.5%	3.700 78.2%	136 2.9%	738 15.6%	123 2.6%	33 0.7%	894 18.9%
JAPAN	TWh / year %	1.027 100.0%	289 28.1%	156 15.2%	439 42.7%	884 86.1%	9.0 0.9%	93.0 9.1%	7.0 0.7%	34 3.3%	134 13.0%
TURKEY	TWh / year %	240.0 100.0%	68.0 28.3%	1.6 0.7%	105 43.8%	174.6 72.8%	0.0 0.0%	57.9 24.1%	5.9 2.4%	0.9 0.4%	65.4 26.9%



2012

		GDP*
WORLD	Billion\$ / year	51.734
US	Billion\$ / year	13.063
EU / Europe	Billion\$ / year	15.678
CHINA	Billion\$ / year	3.840
JAPAN	Billion\$ / year	4.646
TURKEY	Billion\$ / year	786

*World gross domestic product (GDP) by region expressed in market exchange rates (btl)

In 2012, the share of Renewable Resources (Hydro-Wind-Geothermal, etc.), in world's electricity production is approximately 22% (approximately 4650 TWh / year). This value is realized as 27% for Turkey. Renewable capacity of Turkey, although it is not sufficiently utilized, is above the level of the world.

The main reason for Turkey's high share, is the significant contribution of hydroelectric capacity (although Turkey is using nearly half of its economical hydroelectricity potential). Despite the hydroelectrical capacity is not high, the share of renewable sources in Europe is 27%, in Europe, in U.S. 13%, in China 19% and in Japan around 13%.

Turkey, with its implementations from 2000s, has adopted the free market principles in electricity production and distribution and achieved important milestones. With these achievements, there are intense works on "Smart Grid" and "Pumped Hydroelectric Generation" projects. In addition, it shows serious efforts for the maximum utilization of its total of 220 TWh / year Renewable Resource Potential.

Based on the above values, [Although it would be more appropriate to take energy figures rather than electricity figures, just to give an idea, electricity production and consumption figures will be taken here] the world is consuming an average of 415 Wh electricity in order to produce \$ 1 gross domestic product, while Turkey is consuming 305 Wh for the production of 1 \$. For U.S., this figure is approximately 310 Wh, for EU 235 Wh, for Japan 220 Wh and for China 1230 Wh.

It can be stated that, Turkey's electricity utilization efficiency is above the world's average [although it is not enough] when it is considered the fact that Turkey with share of 1.5% World Economy, is producing and consuming 1.1% of world electricity. With these values, Turkey is not reaching the level of Japan and EU, however it is realized a much better efficiency rate than United States and China.

2012

	Electricity Consumed (kWh) for production of 1\$ GDP
WORLD	0.4139 %
US	0.3119 %
EU / Europe	0.2345 %
CHINA	1.2318 %
JAPAN	0.2211%
TURKEY	0.3053 %

*World gross domestic product (GDP) by region expressed in market exchange rates (billion 2005 dollars)

2012

	Share of Renewable Energy Resources in Total Electricity Production
WORLD	21.7 %
US	12.7 %
EU / Europe	26.8 %
CHINA	18.9 %
JAPAN	13.0 %
TURKEY	27.2 %