

In 2017, 6.5 per cent of electricity generation was derived from renewable sources.

## Electricity Generation: 2008-2017

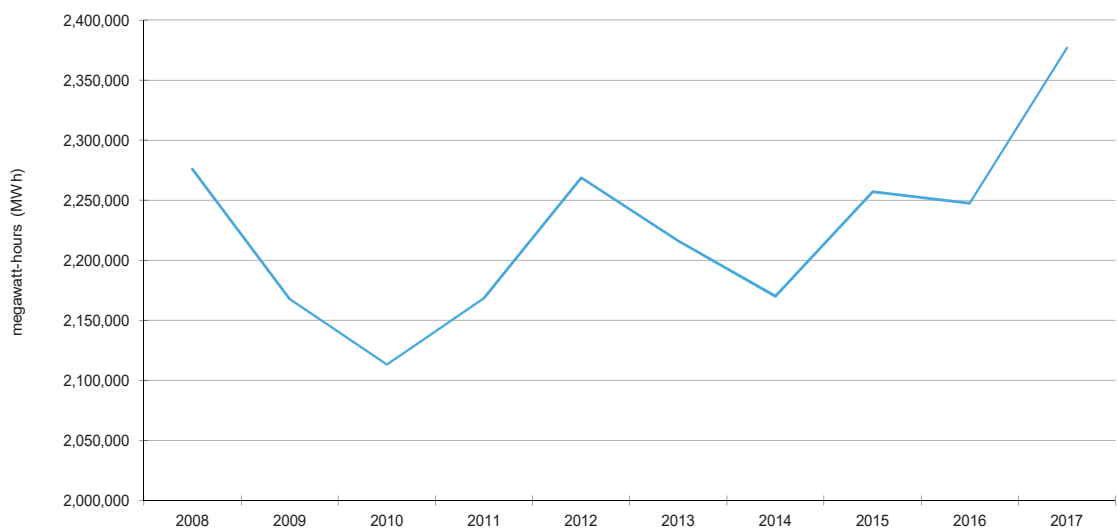
During 2017, electricity generation from power plants and the interconnector increased by 5.8 per cent compared to the previous year. The data shows that the highest power generation was recorded in 2017 with 2,376,786 megawatt-hours (MWh), followed by 2008 with 2,275,892 MWh (Table 1 and Chart 1). The month of August featured the highest increase (16.1 per cent) in electricity generation compared to the previous year. Approximately 31 per cent of the electricity generated in 2017 occurred between July and September. During 2017, a total of 0.9 million MWh, or 37.7 per cent of the generation from power plants and the interconnector were imported through the interconnector (Table 1).

During the past decade the highest annual average demand was registered in 2017 with 386 megawatts (MW) – an increase of 12.5 per cent compared to the previous year. The months of July and August of 2017 featured the highest maximum electricity demand with 456 MW and 488 MW, respectively (Table 2).

Energy harvesting from renewable sources registered an increase of 21.8 per cent, reaching 165,109 MWh in 2017. Most renewable energy (94.1 per cent) was produced from photovoltaic cells (Table 3).

In 2017, emissions from power plant sources increased by 25.3 per cent over 2016, mainly due to a higher share of electricity generation from power plants in Malta (Chart 2 and Table 4) ■

**Chart 1. Electricity generation from power plants and interconnector**



**Table 1. Electricity generation from power plants and the interconnector by month and year**

megawatt-hours (MWh)

Month	2008	2009	2010	2011	2012	2013	2014
January	191,504	175,673	169,996	171,416	181,343	178,061	177,157
February	183,599	163,516	153,978	158,511	176,492	162,713	156,869
March	178,957	169,586	162,568	170,118	170,613	167,395	168,762
April	172,613	156,629	152,877	157,549	158,327	159,500	158,192
May	179,504	168,350	161,707	167,758	170,874	170,481	165,704
June	162,638	183,332	174,532	181,076	195,451	181,179	185,462
July	242,991	222,045	220,690	222,627	238,887	223,081	212,929
August	236,165	231,631	222,289	224,596	244,999	234,506	218,933
September	213,413	198,169	190,065	201,814	199,163	204,163	208,316
October	183,656	175,875	177,227	178,417	193,675	193,737	185,792
November	164,018	158,076	161,046	165,061	167,772	167,444	163,708
December	166,834	164,758	166,137	169,610	171,031	173,841	168,401
<b>Total</b>	<b>2,275,892</b>	<b>2,167,640</b>	<b>2,113,112</b>	<b>2,168,553</b>	<b>2,268,627</b>	<b>2,216,101</b>	<b>2,170,225</b>
Month	2015		2016		2017		
	Total	<i>of which via interconnector</i>	Total	<i>of which via interconnector</i>	Total	<i>of which via interconnector</i>	
January	186,105	0	180,575	118,017	208,690	132,919	
February	170,282	0	164,074	116,448	168,413	110,898	
March	175,315	6,738	169,727	123,760	169,369	105,540	
April	157,604	58,546	160,056	117,418	160,208	68,290	
May	168,322	85,679	169,637	129,483	170,051	87,888	
June	181,548	111,109	188,627	134,620	194,359	58,113	
July	236,843	140,248	226,039	144,444	243,514	82,528	
August	237,526	145,570	224,405	138,191	260,481	69,343	
September	210,226	139,195	205,132	130,432	224,687	10,832	
October	190,369	122,797	200,588	129,957	205,589	30,964	
November	167,954	130,177	175,814	121,159	178,618	86,738	
December	175,124	113,922	182,850	122,760	192,808	53,013	
<b>Total</b>	<b>2,257,218</b>	<b>1,053,981</b>	<b>2,247,523</b>	<b>1,526,689</b>	<b>2,376,786</b>	<b>897,066</b>	

Notes:

1. From 2008 to 2014, electricity generation from power plants comprised the output of power stations in Marsa and Delimara. In March 2015, part of the electricity started to be imported from the Malta-Sicily Interconnector. In 2017, electricity was generated from Enemalta power station (Delimara), D3 Power Generation, D4 Electrogas Malta and the Malta-Sicily Interconnector.

2. Statistics refer to the total generation including own use of electricity within same power plants.

3. Statistics above exclude electricity generated from renewable sources which are included in Table 3.

Source: Enemalta plc and Regulator for Energy and Water Services (REWS).

Table 2. Electricity maximum demand by month and year

megawatts (MW)

Month	2008	2009	2010	2011	2012
January	359	332	316	327	336
February	370	350	318	331	368
March	335	326	302	318	327
April	316	283	274	279	288
May	317	321	282	287	286
June	386	347	339	349	375
July	412	389	400	414	427
August	411	403	399	388	429
September	424	390	361	395	354
October	327	332	326	312	359
November	323	298	297	308	314
December	314	315	323	333	334
<b>Average</b>	<b>358</b>	<b>341</b>	<b>328</b>	<b>337</b>	<b>350</b>
Month	2013	2014	2015	2016	2017
January	335	337	368	355	409
February	347	334	361	335	381
March	322	339	347	338	339
April	288	290	302	299	307
May	286	291	295	295	312
June	349	340	318	344	441
July	408	359	397	380	456
August	403	374	426	371	488
September	375	383	384	372	415
October	349	353	354	359	344
November	325	313	317	326	341
December	329	350	338	345	395
<b>Average</b>	<b>343</b>	<b>339</b>	<b>351</b>	<b>343</b>	<b>386</b>

Source: Enemalta plc.

**Table 3. Estimated electricity generated from renewable sources by year**

	megawatt-hours (MWh)				
	2013	2014	2015	2016	2017 <sup>P</sup>
Estimated renewable electricity generated	<b>35,447</b>	<b>74,890</b>	<b>101,693</b>	<b>135,525</b>	<b>165,109</b>
<i>of which generated from:</i>					
Photovoltaic cells	29,470	68,380	94,990	127,160	155,313
Other sources *	5,977	6,510	6,703	8,365	9,796

<sup>P</sup> Provisional

\* Renewable energy produced from micro wind turbines and Combined Heat and Power (CHP) plant.

Source: Energy and Water Agency.

**Table 4. Emissions from power plants by year**

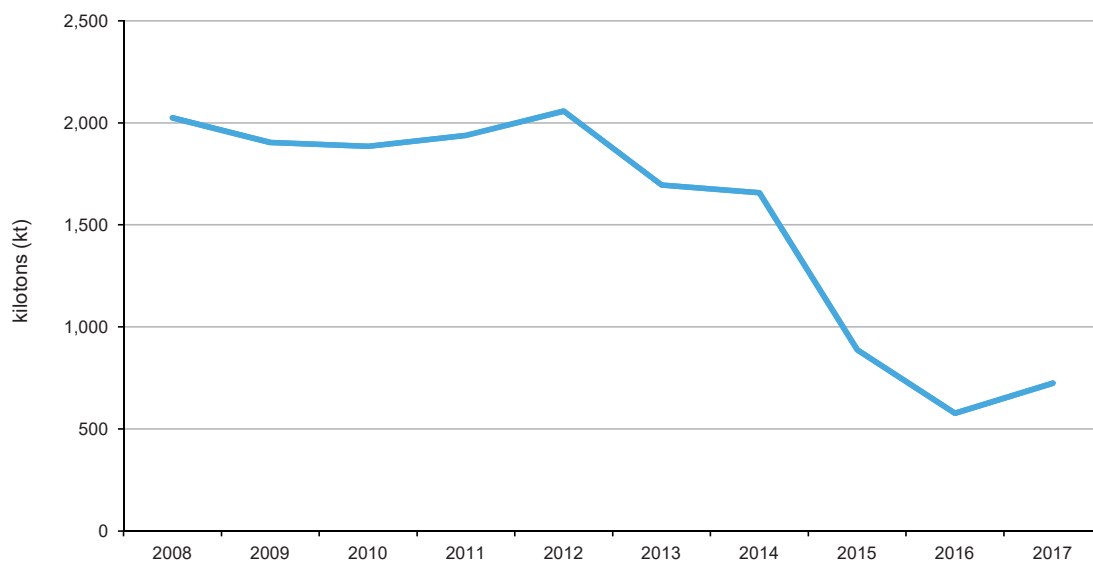
	kilotons (kt)	
Year	CO <sub>2</sub> equivalent	
2008	2,025	
2009	1,903	
2010	1,885	
2011	1,938	
2012	2,057	
2013	1,695	
2014	1,657	
2015	887	
2016	578	
2017 <sup>P</sup>	724	

<sup>P</sup> Provisional

Source:

1. Data prior to 2017 is taken from the UNFCCC [GHG Inventory](#).
2. Data for 2017 is taken from the approximated [GHG Inventory](#).

**Chart 2. CO<sub>2</sub> equivalent emissions from power plants by year**



## Methodological Notes

### 1. Definitions:

- **Megawatt (MW):** is a unit for measuring power that is equivalent to one million watts.
- **Megawatt-hour (MWh):** it is equal to 1,000 kilowatts or one million watts of electricity produced by a power plant that runs continuously for one hour.
- **Maximum electricity demand:** the highest amount of electricity consumed at any one point in time across the entire network system.
- **Renewable energy:** energy that is obtained from resources which are continually replenished on a human timescale. Such resources include sunlight, wind, rain, tides, waves and geothermal heat.
- **Photovoltaics (PV):** a method of generating electrical power by converting solar radiation into direct current electricity using semiconductors that exhibit the photovoltaic effect. Photovoltaic power generation employs solar panels composed of a number of solar cells containing photovoltaic material.
- **CO<sub>2</sub> equivalent:** it is a metric measure used to compare the emissions from various greenhouse gases on the basis of their global-warming potential (GWP), by converting amounts of other gases to the equivalent amount of carbon dioxide with the same global warming potential.

### 2. More information relating to this news release may be accessed at:

Statistical Concepts: <http://nso.gov.mt/metadata/concepts.aspx>

Metadata: <http://nso.gov.mt/metadata/reports.aspx?id=19>

### 3. References to this news release are to be cited appropriately.

### 4. A detailed news release calendar is available on:

[https://nso.gov.mt/en/News\\_Releases/Release\\_Calendar/Pages/News-Release-Calendar.aspx](https://nso.gov.mt/en/News_Releases/Release_Calendar/Pages/News-Release-Calendar.aspx)