NATIONAL STATISTICS OFFICE • MALTA

NEWS RELEASE

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In 2015, 4.4 per cent of electricity generation was derived from renewable sources.

Electricity Generation: 2006-2015

Over the past decade electricity generation from power plants amounted to an annual average of 2.2 million megawatt-hours. In 2015, electricity generation increased by 4.0 per cent compared to a year earlier. The data shows that the highest power generation was recorded in 2007, 2,296,296 megawatt-hours, followed by 2008 with 2,275,892 megawatt-hours. Approximately 30 per cent of the electricity generated in a year occurs between July and September. During 2015, a total of 1.1 million megawatt-hours or 46.7 per cent were imported through the interconnector (Table 1).

July and August feature the highest electricity demand, registering an average of 404 and 406 megawatts respectively in the period 2006-2015. The highest annual average demand was registered in 2007 with 363 megawatts. On the other hand, the lowest annual average demand was registered in 2010 amounting to 328 megawatts (Table 2).

During the last four years, generation of energy from renewable sources has registered a substantial increase, from 25,609 megawatt-hours in 2012 to 103,540 megawatt-hours in 2015. During the latter year, the majority of renewable energy (91.6 per cent) was produced from photovoltaic cells, while the remainder was derived from other sources (Table 3).

In 2015, emissions from power plant sources dropped by 46.8 per cent over 2014, mainly due to the use of the interconnector (Table 4) ■

Chart 1. Electricity generation by year

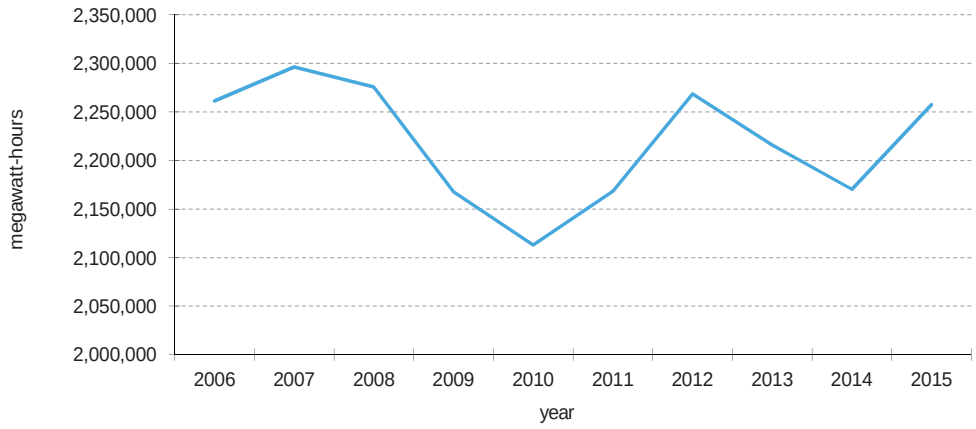

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Table 1. Electricity generation from power plants and interconnector by year

megawatt-hours

Month	2006	2007	2008	2009
January	202,667	180,484	191,504	175,673
February	175,005	163,140	183,599	163,516
March	178,947	177,618	178,957	169,586
April	157,392	164,451	172,613	156,629
May	175,885	177,057	179,504	168,350
June	189,973	200,405	162,638	183,332
July	232,486	232,255	242,991	222,045
August	225,010	237,344	236,165	231,631
September	195,227	204,716	213,413	198,169
October	187,124	192,899	183,656	175,875
November	167,724	175,633	164,018	158,076
December	173,785	190,294	166,834	164,758
Total	**2,261,225**	**2,296,296**	**2,275,892**	**2,167,640**

Month	2010	2011	2012	2013
January	169,996	171,416	181,343	178,061
February	153,978	158,511	176,492	162,713
March	162,568	170,118	170,613	167,395
April	152,877	157,549	158,327	159,500
May	161,707	167,758	170,874	170,481
June	174,532	181,076	195,451	181,179
July	220,690	222,627	238,887	223,081
August	222,289	224,596	244,999	234,506
September	190,065	201,814	199,163	204,163
October	177,227	178,417	193,675	193,737
November	161,046	165,061	167,772	167,444
December	166,137	169,610	171,031	172,540
Total	**2,113,112**	**2,168,553**	**2,268,627**	**2,214,800**

Month	2014	2015	*of which through interconnector in 2015*
January	177,157	186,105	0
February	156,869	170,282	0
March	168,762	175,315	6,738
April	158,192	157,604	58,546
May	165,704	168,322	85,679
June	185,462	181,548	111,109
July	212,929	236,843	140,248
August	218,933	237,526	145,570
September	208,316	210,226	139,195
October	185,792	190,369	122,797
November	163,708	167,954	130,177
December	168,401	175,124	113,922
Total	**2,170,225**	**2,257,218**	**1,053,981**

Note: Data refers to the total generation including own use.
Source: Enemalta.

Table 2. Electricity maximum demand by year

megawatts

Month	2006	2007	2008	2009	2010
January	383	337	359	332	316
February	377	341	370	350	318
March	341	336	335	326	302
April	281	307	316	283	274
May	332	320	317	321	282
June	395	418	386	347	339
July	404	434	412	389	400
August	400	426	411	403	399
September	365	376	424	390	361
October	349	345	327	332	326
November	314	345	323	298	297
December	321	366	314	315	323
Average	**355**	**363**	**358**	**341**	**328**
Month	**2011**	**2012**	**2013**	**2014**	**2015**
January	327	336	335	337	368
February	331	368	347	334	361
March	318	327	322	339	347
April	279	288	288	290	302
May	287	286	286	291	295
June	349	375	349	340	318
July	414	427	408	359	397
August	388	429	403	374	426
September	395	354	375	383	384
October	312	359	349	353	354
November	308	314	325	313	317
December	333	334	329	350	338
Average	**337**	**350**	**343**	**339**	**351**

Source: Enemalta.

Table 3. Estimated energy generated from renewable sources by year

megawatt-hours

	2012	2013	2014	2015
Total estimated renewable energy generated	**25,609**	**38,145**	**75,467**	**103,540[p]**
of which generated from:				
Photovoltaic cells	16,638	32,168	68,957	94,882[p]
Other sources	8,971	5,977	6,510	8,658[p]

[p] Provisional

Sources:

1. Photovoltaic cells: Estimates based on actual data provided by Enemalta and Regulator for Energy and Water Services (REWS).
2. Other sources: Sustainable Energy and Water Conservation Unit (SEWCU) within the Ministry for Energy and Health (MEH).

Table 4. CO_2 equivalent emmission from power plants by year

kilotons

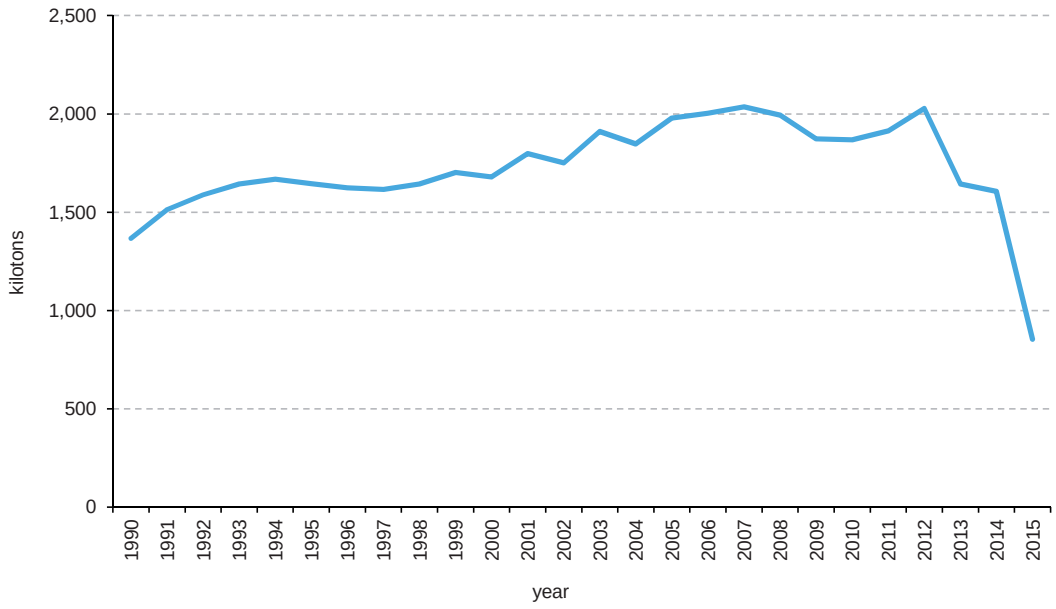
Year	CO_2 equivalent
2006	2,003
2007	2,036
2008	1,994
2009	1,874
2010	1,868
2011	1,914
2012	2,028
2013	1,644
2014	1,606
2015	854[p]

[p] Provisional

Sources:

1. Data prior to 2015 is taken from the United Nations Framework Convention on Climate Change (UNFCCC).
2. Data for 2015 is estimated by NSO.

Chart 2. CO_2 equivalent emissions from power plants by year



Methodological Notes

1. The figures in Tables 1 and 2 represent the combined totals of the Delimara and Marsa power stations and the interconnector.

2. **Definitions:**
   - **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_2 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.

3. 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