

In 2020, the electricity supplied amounted to 2,496.4 GWh, a decrease of 5.4 per cent when compared to previous year.

Electricity Supply: 2016-2020

During 2020, the electricity supply in Malta comprised net generation from power plants (73.6 per cent), supply from net imports (16.7 per cent) and renewable sources (9.7 per cent) (Table 1 and Chart 1).

In 2020, the gross production consisting of the electricity supplied from power plants and from renewables amounted to 2,143.1 GWh. The month of January featured the highest amount of gross production with 223.8 GWh (Table 2).

Electricity production from power plants registered an increase of 2.3 per cent when compared to previous year amounting to 1,900.3 GWh (Table 3). Energy harvesting from renewable sources registered an increase of 20.3 per cent, reaching 242.8 GWh in 2020. Most of the renewable energy (97.5 per cent) was produced from photovoltaic panels (Table 4).

During 2020, a total of 419.8 GWh were imported through the interconnector, registering a decrease of 36.1 per cent when compared to the previous year (Table 5).

The month of August (277.6 GWh) had the highest amount of electricity supplied during 2020 with a share of 11.1 per cent. This is followed by the month of July (250.9 GWh) having a share of 10.1 per cent from the amount of electricity supplied (Table 6).

The months of August and July featured the highest electricity demand, registering 482 MW and 456 MW respectively during 2020. The annual average demand registered in 2020 was that of 403 MW – a decrease of 2.6 per cent when compared to the previous year (Table 7).

In 2020, GHG emissions from fuel combustion in power plant sources increased by 9.6 per cent over the situation in 2019 (Table 8 and Chart 2) ■

Statistics in this News Release should be interpreted in the context of the COVID-19 situation.

Table 1. Electricity supply by year

		megawatt-hours (MWh)				
		2016	2017	2018	2019	2020 ^P
a	+ Power Plants	720,834	1,479,721	1,763,485	1,857,984	1,900,262
b	+ Renewable sources	136,251	172,059	198,995	201,821	242,788
c=(a+b)	Gross production	857,085	1,651,779	1,962,480	2,059,805	2,143,050
d	- Own use (Power Plants)	50,542	49,262	50,210	58,623	62,250
e=(c-d)	Net production	806,543	1,602,517	1,912,270	2,001,182	2,080,800
f	+ Imports (balance)	1,526,689	897,066	631,293	656,756	419,810
g	- Exports (balance)	0	35,695	10,549	20,451	4,233
h=(e+f-g)	Electricity supply	2,333,231	2,463,888	2,533,014	2,637,487	2,496,377

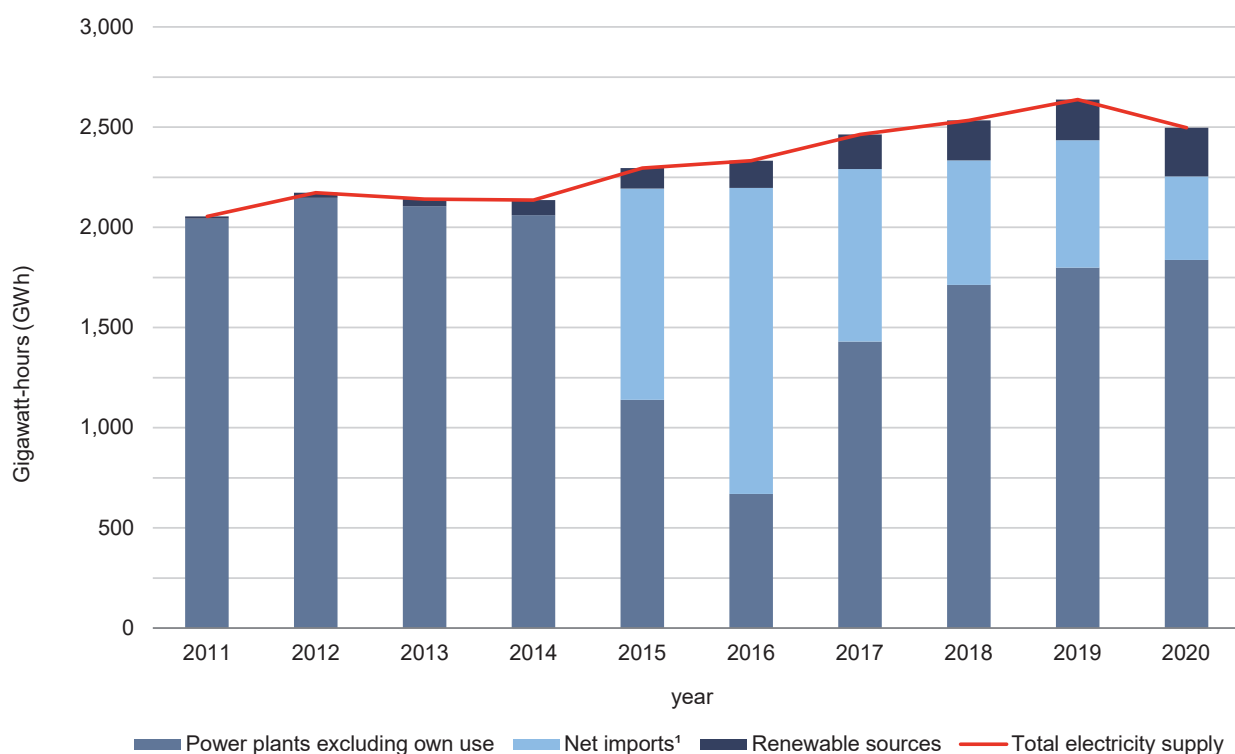
^P Provisional

Notes:

1. From 2017, the electricity supplied was generated from Enemalta plants at Delimara and Marsa, D3 Power Generation Ltd and Electrogas Malta Ltd plants at Delimara and partly imported via the Sicily-Malta interconnector.
2. Electricity exports through the Malta-Sicily Interconnector started in 2017.
3. Renewable energy is produced from photovoltaic panels, micro wind turbines and Combined Heat and Power (CHP) plants.
4. Own use by power plants is the difference between the Gross and Net production. Refer to definitions in the methodological notes.
5. Totals may not add up due to rounding.

Sources: Enemalta plc, Energy and Water Agency (EWA) and Regulator for Energy and Water Services (REWS).

Chart 1. Total electricity supply in Malta by type and year



¹ net imports = imports - exports

Table 2. Gross production of electricity by month and year

megawatt-hours (MWh)

Month	2016	2017	2018	2019	2020 ^P
January	70,204	84,174	115,354	183,397	223,838
February	56,424	67,944	157,489	141,891	200,264
March	57,499	79,038	119,662	147,599	176,103
April	55,696	107,885	106,999	150,958	160,273
May	54,593	100,228	164,502	168,699	172,370
June	67,932	154,616	161,392	192,399	192,342
July	97,066	180,176	218,979	200,695	214,801
August	100,779	208,922	220,225	218,635	217,385
September	86,328	229,774	192,215	173,319	183,703
October	80,894	187,882	174,009	169,186	157,660
November	62,312	101,550	170,322	141,491	107,411
December	67,357	149,590	161,332	171,538	136,899
Total	857,085	1,651,779	1,962,480	2,059,805	2,143,050

^P Provisional

Notes:

1. Gross production consists of the electricity supplied from power plants and from renewable sources.
2. Totals may not add up due to rounding.

Sources: Enemalta plc, Energy and Water Agency (EWA) and Regulator for Energy and Water Services (REWS).

Table 3. Electricity production from power plants by month and year

megawatt-hours (MWh)

Month	2016	2017	2018	2019	2020
January	62,558	75,771	105,053	172,879	211,835
February	47,626	57,515	147,372	131,577	183,925
March	45,967	63,829	100,857	128,381	158,087
April	42,638	91,918	87,530	131,083	137,987
May	40,154	82,163	143,001	147,025	146,160
June	54,007	136,246	139,150	169,887	164,168
July	81,595	160,986	196,913	178,342	187,167
August	86,214	191,138	200,565	198,805	191,442
September	74,700	213,855	175,846	156,756	163,488
October	70,631	174,624	160,000	155,010	138,166
November	54,655	91,880	158,588	129,676	93,257
December	60,090	139,795	148,610	158,563	124,580
Total	720,834	1,479,721	1,763,485	1,857,984	1,900,262

Notes:

1. From 2017, the electricity supplied was generated from Enemalta plants at Delimara and Marsa, D3 Power Generation Ltd and Electrogas Malta Ltd plants at Delimara and partly imported via the Sicily-Malta interconnector.
2. Totals may not add up due to rounding.

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

Table 4. Estimated electricity production from renewable sources by month and year

megawatt-hours (MWh)

Month	2016	2017	2018	2019	2020^P
January	7,646	8,403	10,301	10,518	12,003
February	8,798	10,429	10,117	10,314	16,339
March	11,532	15,209	18,805	19,218	18,016
April	13,058	15,967	19,469	19,875	22,286
May	14,439	18,065	21,501	21,674	26,210
June	13,925	18,370	22,242	22,512	28,174
July	15,471	19,190	22,066	22,353	27,634
August	14,565	17,783	19,660	19,830	25,943
September	11,629	15,919	16,369	16,563	20,215
October	10,263	13,258	14,009	14,176	19,494
November	7,657	9,670	11,734	11,815	14,154
December	7,268	9,795	12,722	12,975	12,319
Total	136,251	172,059	198,995	201,821	242,788
<i>of which generated from:</i>					
<i>Photovoltaic panels</i>	127,886	162,263	189,981	195,362	236,837
<i>Other sources</i>	8,365	9,796	9,014	6,459	5,951

^P Provisional

Notes:

1. Renewable energy is produced from photovoltaic panels, micro wind turbines and Combined Heat and Power (CHP) plants.
2. Totals may not add up due to rounding.

Source: Energy and Water Agency (EWA).

Table 5. Imports and exports of electricity by month and year

megawatt-hours (MWh)

Month	2016		2017		2018		2019		2020	
	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports
January	118,017	0	132,919	0	88,723	21	46,959	400	0	0
February	116,448	0	110,898	0	36,626	556	60,593	214	0	0
March	123,760	0	105,540	0	76,788	7	58,857	473	25,325	260
April	117,418	0	68,290	0	79,455	30	44,681	3,048	13,877	901
May	129,483	0	87,888	0	35,625	1,094	34,195	8,455	7,354	1,328
June	134,620	0	58,113	0	55,534	896	45,459	1,545	4,093	1,248
July	144,444	0	82,528	0	45,846	723	82,336	31	42,207	151
August	138,191	0	69,343	0	52,598	1,510	69,462	54	66,826	30
September	130,432	0	10,832	16,292	53,889	633	68,754	22	57,769	158
October	129,957	0	30,964	18,227	38,518	302	56,059	5,329	51,785	108
November	121,159	0	86,738	0	25,078	1,105	55,498	343	82,721	11
December	122,760	0	53,013	1,176	42,613	3,674	33,903	538	67,853	37
Total	1,526,689	0	897,066	35,695	631,293	10,549	656,756	20,451	419,810	4,233

Notes:

1. Electricity exports through the Malta-Sicily Interconnector started in 2017.

2. Totals may not add up due to rounding.

Source: Enemalta plc

Table 6. Electricity supply by month and year

megawatt-hours (MWh)

Month	2016	2017	2018	2019	2020 ^P
January	184,355	212,834	201,163	224,826	218,441
February	169,432	175,151	190,135	197,923	195,222
March	178,062	180,204	193,511	201,664	196,315
April	170,222	173,339	183,642	188,070	168,429
May	180,638	185,658	195,962	189,580	173,344
June	198,397	208,229	211,873	231,057	189,705
July	236,030	257,325	258,326	277,502	250,907
August	233,545	272,821	266,015	282,028	277,629
September	211,872	219,069	240,447	236,900	235,749
October	206,021	196,184	207,512	214,625	204,112
November	178,901	185,414	189,387	192,021	186,569
December	185,757	197,660	195,041	201,292	199,955
Total	2,333,231	2,463,888	2,533,014	2,637,487	2,496,377

^P Provisional

Note: Totals may not add up due to rounding.

Sources: Enemalta plc, Energy and Water Agency (EWA) and Regulator for Energy and Water Services (REWS).

Table 7. Electricity maximum demand by month and year

megawatts (MW)

Month	2016	2017	2018	2019	2020
January	355	409	371	443	435
February	330	381	410	427	406
March	331	339	360	389	397
April	294	307	331	357	346
May	300	312	344	334	321
June	370	441	378	449	389
July	418	456	452	504	456
August	397	488	465	485	482
September	394	415	460	432	448
October	360	344	366	390	437
November	326	341	348	370	346
December	375	395	366	392	376
Average	354	386	388	414	403

Source: Enemalta plc.

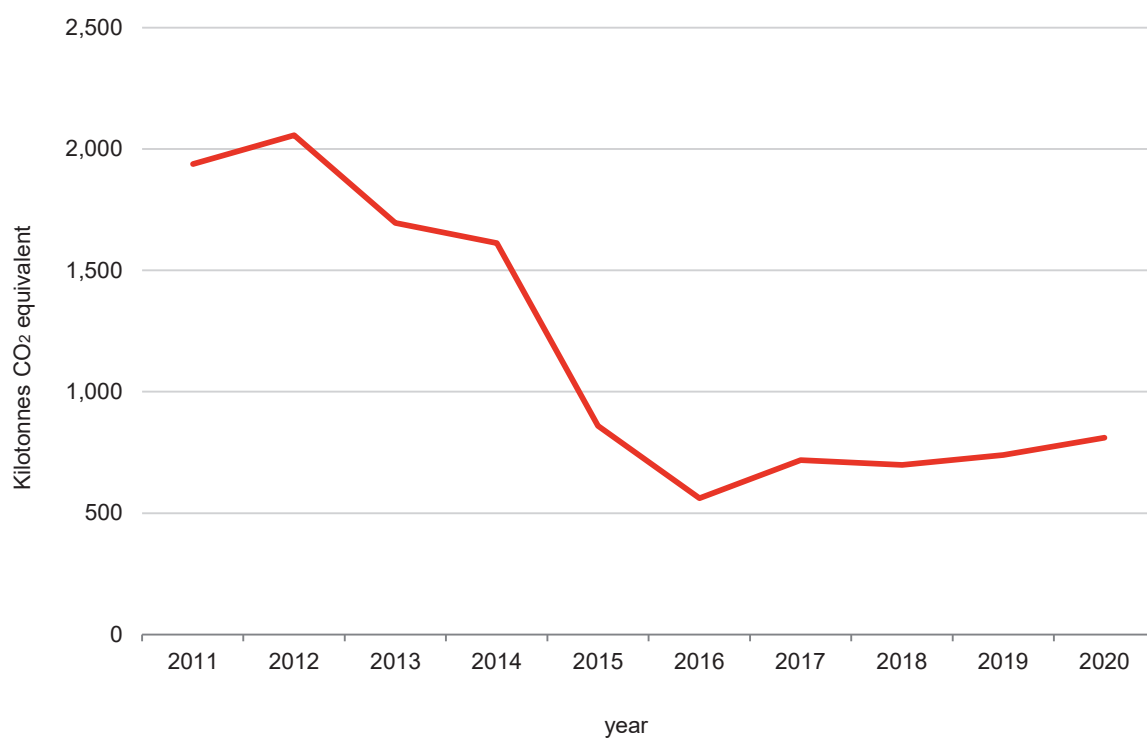
Table 8. GHG emissions from fuel combustion in power plants by year

Year	Kilotonnes CO ₂ equivalent
2016	562
2017	719
2018	698
2019	740
2020 ^P	811

^P Provisional

Source: Malta Resources Authority (MRA).

Chart 2. GHG emissions from fuel combustion in 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):** is equal to 1,000 kilowatts or one million (1,000,000) watts of electricity produced by a power plant that runs continuously for one hour.
- **Gigawatt-hour (GWh):** is equal to 1,000 megawatts or one billion (1,000,000,000) 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.
- **Photovoltaic (PV) system:** A complete set of components for converting solar radiation into electricity by the photovoltaic process, including the array/s of photovoltaic modules that collect and absorb sunlight for conversion into electricity, inverter/s and associated balance of system components.
- **CO₂ equivalent:** 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.
- **Own use by power plants:** is the difference between Gross and Net production, i.e. it is the electricity and heat used by power station auxiliaries directly related to generation and including that used in fuel handling plant, cooling water plant, power station services, heating, lighting, workshops and administrative buildings directly associated with the power station during both on-load and off-load periods.
- **Gross electricity production:** is the sum of the electrical energy production by all the generating sets concerned (including pumped storage) measured at the output terminals of the main generators.
- **Net electricity production:** is equal to the gross electricity production less the electrical energy absorbed by the generating auxiliaries and the losses in the main generator transformers.
- **Imports and Exports:** Amounts of electricity and heat are considered as imported or exported when they have crossed the political boundaries of the country, whether customs clearance has taken place or not. If electricity is "wheeled" or transited through a country, the amount should be reported as both an import and an export.
- **Electricity supply:** For electricity, this is the electrical energy supplied from the plant. In the case of a national network this is equal to the sum of the net electrical energy production supplied by all power stations within the country, reduced by the amount used simultaneously for pumping as well as the amount used for heat sold using heat pumps and electric boilers. It is then reduced or increased by exports to or imports from abroad.

2. Data is subject to revision.

3. Renewable energy data was revised for reference years 2018 and 2019.

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

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

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

5. References to this news release are to be cited appropriately.

6. A detailed news release calendar is available on:

https://nso.gov.mt/en/News_Releases/Release_Calendar/Pages/News-Release-Calendar.aspx