NATIONAL STATISTICS OFFICE • MALTA

NEWS RELEASE

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In 2021, the electricity supplied amounted to 2,671.8 GWh, an increase of 7.0 per cent when compared to the previous year.

Electricity Supply: 2021

During 2021, the electricity supply in Malta comprised of net generation from power plants (71.0 per cent), supply from net imports (19.1 per cent) and renewable sources (9.9 per cent) (Table 1 and Chart 1).

In 2021, the gross production consisting of the electricity supplied from power plants and from renewables amounted to 2,215.1 GWh. The month of July featured the highest amount of gross production with 243.8 GWh (Table 2).

Electricity production from power plants registered an increase of 2.7 per cent when compared to the previous year, amounting to 1,951.8 GWh (Table 3). Energy harvesting from renewable sources registered an increase of 8.4 per cent, reaching 263.2 GWh in 2021. Most of the renewable energy (97.2 per cent) was produced from photovoltaic panels (Table 4).

During 2021, a total of 547.3 GWh were imported through the interconnector, registering an increase of 30.4 per cent when compared to the previous year (Table 5).

The month of August (308.8 GWh) had the highest amount of electricity supplied during 2021 with a share of 11.6 per cent. This is followed by the month of July (287.6 GWh) having a share of 10.8 per cent from the amount of electricity supplied (Table 6).

The months of August and June featured the highest electricity demand, registering 565 MW and 541 MW respectively during 2021. The annual average demand registered in 2021 was that of 438 MW – an increase of 8.7 per cent when compared to the previous year (Table 7).

In 2021, GHG emissions from fuel combustion in power plant sources decreased by 4.7 per cent over the year 2020 (Table 8 and Chart 2) ■

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Table 1. Electricity supply by year

megawatt-hours (MWh)

			2017	2018	2019	2020	2021[p]
a	+	*Power Plants*	1,479,721	1,763,485	1,857,984	1,900,262	1,951,818
b	+	*Renewable sources*	172,059	198,995	201,845	242,814	263,237
c=(a+b)		**Gross production**	**1,651,779**	**1,962,480**	**2,059,829**	**2,143,076**	**2,215,055**
d	-	*Own use (Power Plants)*	49,262	50,210	58,623	62,250	54,595
e=(c-d)		**Net production**	**1,602,517**	**1,912,270**	**2,001,206**	**2,080,826**	**2,160,460**
f	+	*Imports (balance)*	897,066	631,293	656,756	419,810	547,250
g	-	*Exports (balance)*	35,695	10,549	20,451	4,233	35,887
h=(e+f-g)		**Electricity supply**	**2,463,888**	**2,533,014**	**2,637,511**	**2,496,403**	**2,671,823**

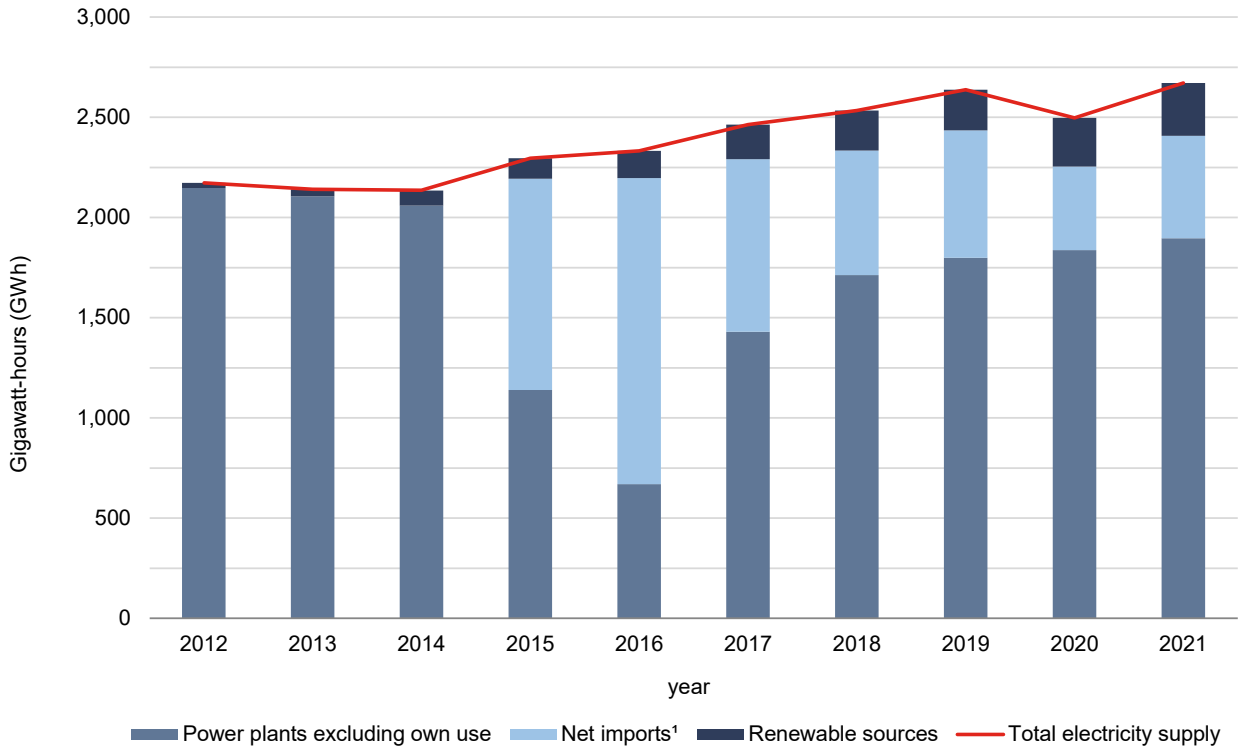
[p] Provisional

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	2017	2018	2019	2020	2021[p]
January	84,174	115,354	183,328	223,839	146,704
February	67,944	157,489	143,504	200,266	150,286
March	79,038	119,662	145,214	176,105	159,719
April	107,885	106,999	148,931	160,275	193,491
May	100,228	164,502	168,549	172,373	192,331
June	154,616	161,392	192,740	192,345	216,621
July	180,176	218,979	201,740	214,804	243,787
August	208,922	220,225	220,449	217,389	236,107
September	229,774	192,215	174,769	183,706	178,533
October	187,882	174,009	170,070	157,662	177,694
November	101,550	170,322	141,493	107,413	155,002
December	149,590	161,332	169,041	136,899	164,779
Total	**1,651,779**	**1,962,480**	**2,059,829**	**2,143,076**	**2,215,055**

[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	2017	2018	2019	2020	2021
January	75,771	105,053	172,879	211,835	131,799
February	57,515	147,372	131,577	183,925	131,439
March	63,829	100,857	128,381	158,087	135,214
April	91,918	87,530	131,083	137,987	169,609
May	82,163	143,001	147,025	146,160	163,700
June	136,246	139,150	169,887	164,168	188,408
July	160,986	196,913	178,342	187,167	214,825
August	191,138	200,565	198,805	191,442	209,854
September	213,855	175,846	156,756	163,488	155,107
October	174,624	160,000	155,010	138,166	159,479
November	91,880	158,588	129,676	93,257	141,643
December	139,795	148,610	158,563	124,580	150,741
Total	**1,479,721**	**1,763,485**	**1,857,984**	**1,900,262**	**1,951,818**

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	2017	2018	2019	2020	2021[p]
January	8,403	10,301	10,449	12,004	14,905
February	10,429	10,117	11,927	16,341	18,847
March	15,209	18,805	16,833	18,018	24,505
April	15,967	19,469	17,848	22,288	23,882
May	18,065	21,501	21,524	26,213	28,631
June	18,370	22,242	22,853	28,177	28,213
July	19,190	22,066	23,398	27,637	28,962
August	17,783	19,660	21,644	25,947	26,253
September	15,919	16,369	18,013	20,218	23,426
October	13,258	14,009	15,060	19,496	18,215
November	9,670	11,734	11,817	14,156	13,359
December	9,795	12,722	10,478	12,319	14,038
Total	**172,059**	**198,995**	**201,845**	**242,814**	**263,237**
of which generated from:					
Photovoltaic panels	162,263	189,981	195,386	236,866	255,946
Other sources	9,796	9,014	6,459	5,948	7,291

[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	2017		2018		2019		2020		2021	
	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports
January	132,919	0	88,723	21	46,959	400	0	0	70,314	140
February	110,898	0	36,626	556	60,593	214	0	0	39,421	384
March	105,540	0	76,788	7	58,857	473	25,325	260	43,981	1,187
April	68,290	0	79,455	30	44,681	3,048	13,877	901	4,868	14,483
May	87,888	0	35,625	1,094	34,195	8,455	7,354	1,328	10,813	11,470
June	58,113	0	55,534	896	45,459	1,545	4,093	1,248	25,455	6,512
July	82,528	0	45,846	723	82,336	31	42,207	151	50,439	1,059
August	69,343	0	52,598	1,510	69,462	54	66,826	30	77,974	11
September	10,832	16,292	53,889	633	68,754	22	57,769	158	81,344	15
October	30,964	18,227	38,518	302	56,059	5,329	51,785	108	37,800	500
November	86,738	0	25,078	1,105	55,498	343	82,721	11	47,435	46
December	53,013	1,176	42,613	3,674	33,903	538	67,853	37	57,406	79
Total	**897,066**	**35,695**	**631,293**	**10,549**	**656,756**	**20,451**	**419,810**	**4,233**	**547,250**	**35,887**

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	2017	2018	2019	2020	2021[p]
January	212,834	201,163	224,757	218,442	212,517
February	175,151	190,135	199,537	195,224	185,198
March	180,204	193,511	199,279	196,317	198,255
April	173,339	183,642	186,043	168,431	179,382
May	185,658	195,962	189,430	173,347	187,024
June	208,229	211,873	231,398	189,708	230,635
July	257,325	258,326	278,548	250,910	287,630
August	272,821	266,015	283,842	277,633	308,806
September	219,069	240,447	238,350	235,752	255,487
October	196,184	207,512	215,510	204,114	210,574
November	185,414	189,387	192,023	186,570	198,358
December	197,660	195,041	198,795	199,955	217,957
Total	**2,463,888**	**2,533,014**	**2,637,511**	**2,496,403**	**2,671,823**

[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	2017	2018	2019	2020	2021
January	409	371	443	435	419
February	381	410	427	406	426
March	339	360	389	397	399
April	307	331	357	346	335
May	312	344	334	321	319
June	441	378	449	389	541
July	456	452	504	456	529
August	488	465	485	482	565
September	415	460	432	448	476
October	344	366	390	437	420
November	341	348	370	346	399
December	395	366	392	376	433
Average	**386**	**388**	**414**	**403**	**438**

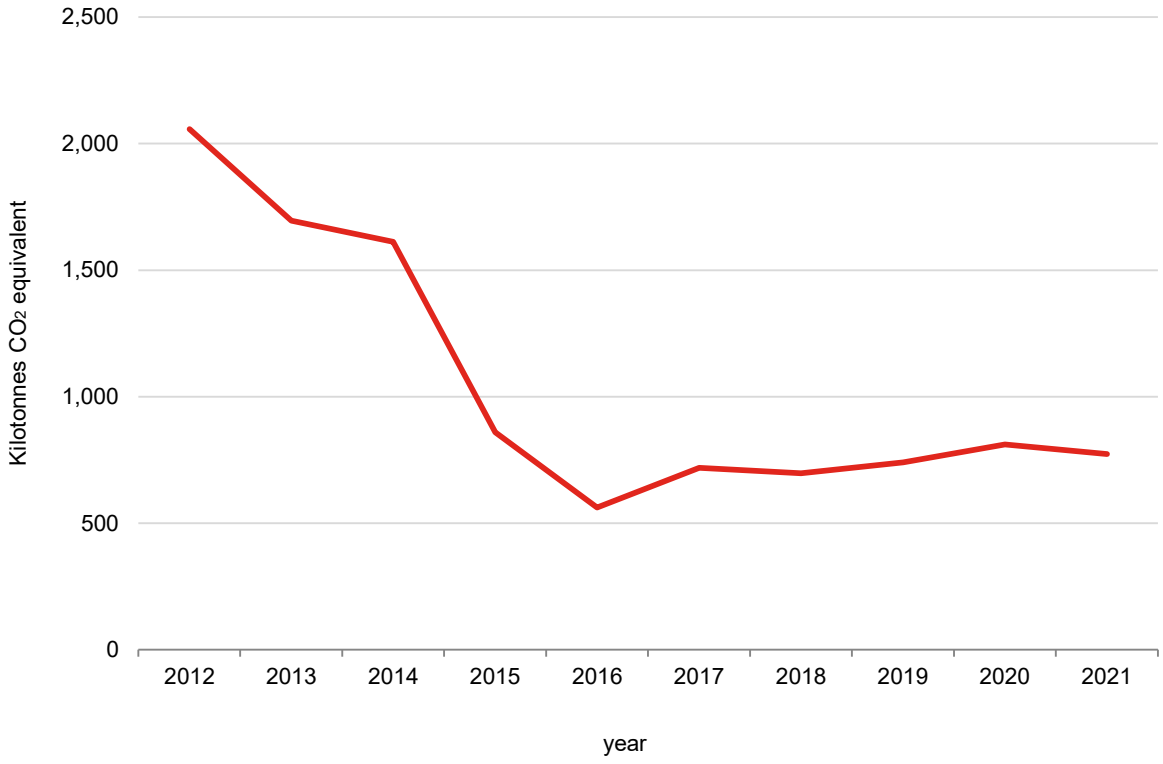
Source: Enemalta plc.

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

Year	Kilotonnes CO_2 equivalent
2017	719
2018	698
2019	740
2020	811
2021[p]	773

[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.
   - **CO_2 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 the 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 2019 and 2020.
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