

Errata Corrige: Corrections were made to this release on 19 June 2018 at 1300 hrs as follows:
 Synopsis pg1 and Commentary pg 3 - 155.3 GWh,
 Chart 5 title - Estimated total output in GWh...
 Table 4 title - Estimated total GWh...
 Table 4 footnote 2 - Output (mWh)...
 Map 6 title - Total estimated mWh.

During 2017, the harvesting of renewable energy from grid-connected PV systems was estimated at 155.3 GWh, an increase of 22.1 per cent on the previous year.

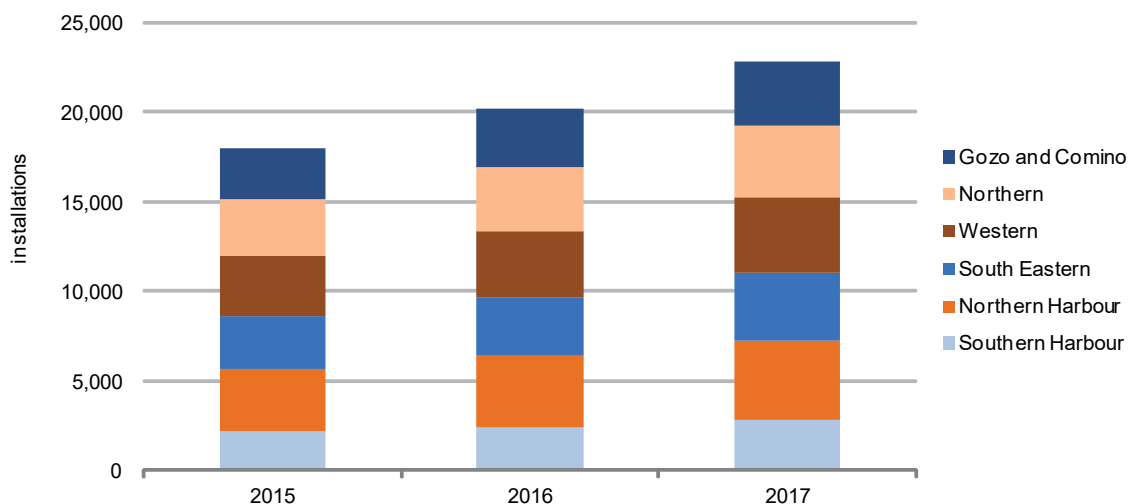
Renewable Energy from Photovoltaic Panels (PVs): 2017

Cut-off date:
30 April 2018

Stock of PVs: 2017

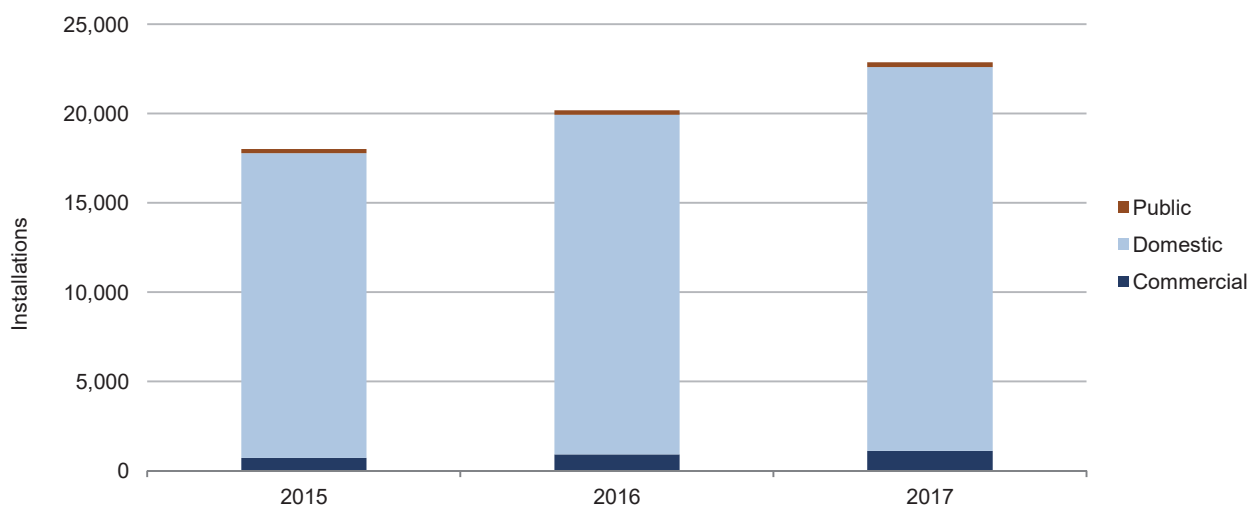
The stock of PV installations amounted to 22,862 of which 84.3 per cent were installed in the region of Malta and 15.7 per cent were in the Gozo and Comino region. The Northern Harbour and Western districts accounted for 37.6 per cent of the total stock of PV installations with 4,436 and 4,161, respectively. When compared to 2016, new installations increased by 13.3 per cent. Increases were highest in the Southern Harbour district (16.4 per cent) and lowest in the Gozo and Comino district (11.9 per cent). (Table 1 and Map 1).

Chart 1. Stock of PV installations by district and year (LAU 1)



The domestic sector accounted for 94.0 per cent of the total stock of PV installations, followed by the commercial and public sectors, accounting for 4.9 and 1.1 per cent, respectively. Most increases in new PV installations resulted from the domestic sector. The Northern Harbour district had the highest stock of PV installations in both domestic and commercial sectors. (Table 2 and Maps 2, 3).

Chart 2. Stock of PV installations by sector and year



Maps 1 to 3 illustrate the concentration of grid-connected PVs, featuring point data on 250m² grid cells. Map 4 illustrates the spread and intensity of domestic PV installations per 1,000 population by locality, indicating that the top 10 localities were in the region/district of Gozo and Comino. When analysing the results by district, Gozo and Comino district had an average of 104 domestic installations per 1,000 population, followed by the Western and South Eastern districts at 65 and 52 installations, respectively. The lowest ratio was registered in the Northern Harbour district, with 29 installations per 1,000 population.

Production of energy from PVs: 2017

Total kWp amounted to 112,341.4, an increase of 20.0 per cent over 2016. The domestic sector amounted to 54.0 per cent of total kWp, followed by 41.2 and 4.8 per cent in the commercial and public sectors, respectively. The peak power rating of an average PV system in the domestic sector stood at 2.8 kWp, whereas that for the commercial and public sectors amounted to 41.8 and 20.4 kWp, respectively. (Table 3 and Map 5).

Chart 3. Total kWp of grid-connected PVs by sector and year

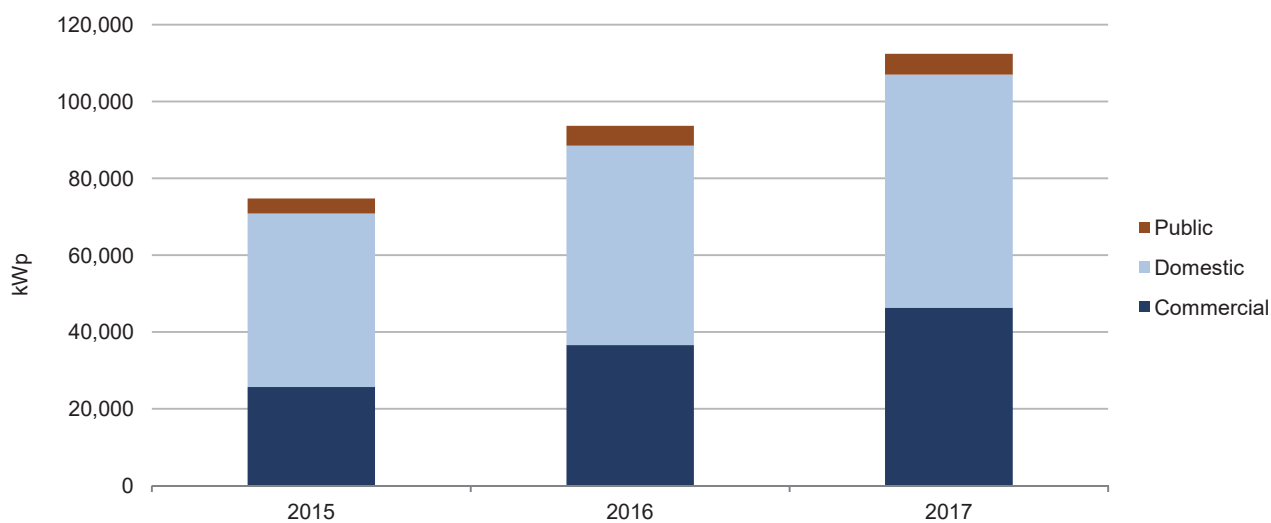
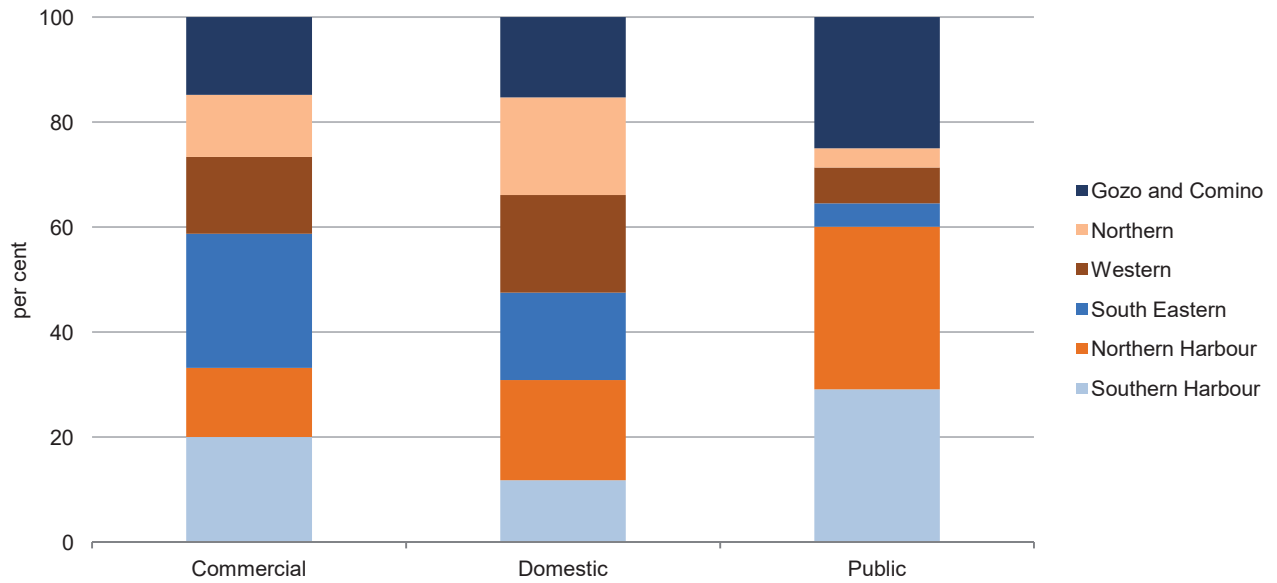


Chart 4. Distribution of total kWp of grid-connected PVs by sector and district: 2017 (LAU1)



When compared to the situation in 2016, generation of energy from grid-connected PVs increased by 22.1 per cent, totalling an estimated value of 155.3 GWh. Most energy was generated in the South Eastern and Northern Harbour districts at 19.7 and 17.2 per cent of the total GWh, respectively. Increases were highest in the Gozo and Comino district (44.0 per cent) and lowest in the Western district (13.8 per cent). (Table 4 and Map 6).

Chart 5. Estimated total output in GWh from grid-connected PVs by district and year (LAU 1)

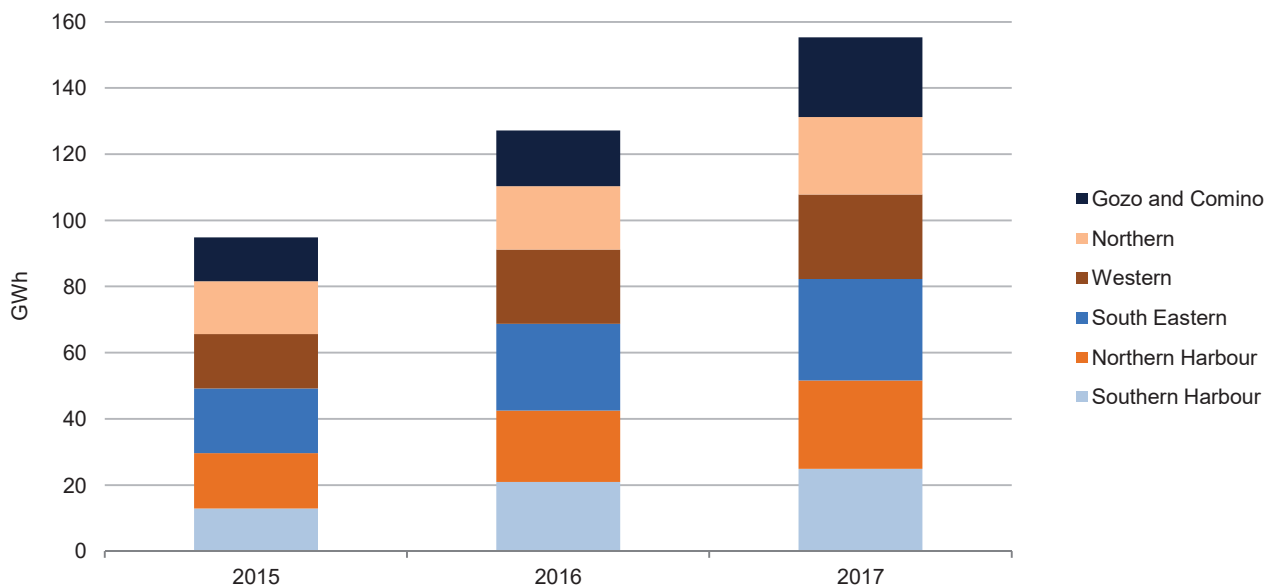


Table 1. Stock of PV installations by region/district and year (NUTS 3 and LAU 1)

| National NUTS 3 LAU 1 | MALTA | Malta | | | | | Gozo and Comino | |
|---------------------------------|---------------|------------------|------------------|---------------|---------|----------|-----------------|-------|
| | | Southern Harbour | Northern Harbour | South Eastern | Western | Northern | Gozo and Comino | |
| 2015 | 18,004 | 15,179 | 2,189 | 3,517 | 2,934 | 3,328 | 3,211 | 2,825 |
| 2016 | 20,181 | 16,976 | 2,458 | 3,944 | 3,295 | 3,712 | 3,567 | 3,205 |
| 2017 | 22,862 | 19,276 | 2,862 | 4,436 | 3,795 | 4,161 | 4,022 | 3,586 |

Source: Regulator for Energy and Water Services

Table 2. Stock of PV installations by sector, region/district and year (NUTS 3 and LAU 1)

| National NUTS 3 LAU 1 | MALTA | Malta | | | | | Gozo and Comino | |
|---------------------------------|---------------|------------------|------------------|---------------|---------|----------|-----------------|-------|
| | | Southern Harbour | Northern Harbour | South Eastern | Western | Northern | Gozo and Comino | |
| Commercial | | | | | | | | |
| 2015 | 718 | 605 | 111 | 141 | 96 | 127 | 130 | 113 |
| 2016 | 919 | 772 | 133 | 181 | 131 | 168 | 159 | 147 |
| 2017 | 1,109 | 926 | 156 | 216 | 155 | 194 | 205 | 183 |
| Domestic | | | | | | | | |
| 2015 | 17,062 | 14,395 | 2,020 | 3,327 | 2,811 | 3,173 | 3,064 | 2,667 |
| 2016 | 19,007 | 15,998 | 2,264 | 3,698 | 3,135 | 3,513 | 3,388 | 3,009 |
| 2017 | 21,491 | 18,137 | 2,639 | 4,154 | 3,611 | 3,936 | 3,797 | 3,354 |
| Public | | | | | | | | |
| 2015 | 224 | 179 | 58 | 49 | 27 | 28 | 17 | 45 |
| 2016 | 255 | 206 | 61 | 65 | 29 | 31 | 20 | 49 |
| 2017 | 262 | 213 | 67 | 66 | 29 | 31 | 20 | 49 |

Source: Regulator for Energy and Water Services

Table 3. Total kWp of connected PVs by sector, region/district and year (NUTS 3 and LAU 1)

| National NUTS 3 LAU 1 | MALTA | Malta | | | | | Gozo and Comino | |
|---------------------------------|------------------|------------------|------------------|---------------|----------|----------|-----------------|----------|
| | | Southern Harbour | Northern Harbour | South Eastern | Western | Northern | Gozo and Comino | |
| | | | | | | | | |
| Commercial | | | | | | | | |
| 2015 | 25,705.8 | 23,339.1 | 4,015.8 | 3,594.0 | 7,796.9 | 4,043.7 | 3,888.7 | 2,366.7 |
| 2016 | 36,566.7 | 33,612.8 | 8,152.2 | 4,255.8 | 10,581.8 | 6,373.8 | 4,249.2 | 2,953.9 |
| 2017 | 46,332.3 | 39,461.0 | 9,287.5 | 6,078.8 | 11,839.8 | 6,788.6 | 5,466.3 | 6,871.3 |
| Domestic | | | | | | | | |
| 2015 | 45,102.0 | 38,197.5 | 5,122.4 | 8,641.1 | 7,325.7 | 8,569.3 | 8,539.0 | 6,904.5 |
| 2016 | 51,893.4 | 43,820.8 | 5,919.7 | 9,920.3 | 8,448.1 | 9,778.6 | 9,754.1 | 8,072.6 |
| 2017 | 60,658.5 | 51,392.6 | 7,138.1 | 11,600.3 | 10,080.4 | 11,269.1 | 11,304.7 | 9,265.9 |
| Public | | | | | | | | |
| 2015 | 3,937.2 | 2,739.5 | 1,000.2 | 1,002.0 | 231.7 | 335.3 | 170.3 | 1,197.7 |
| 2016 | 5,155.9 | 3,818.6 | 1,372.0 | 1,648.9 | 237.1 | 365.4 | 195.2 | 1,337.3 |
| 2017 | 5,350.6 | 4,013.3 | 1,556.2 | 1,659.4 | 237.1 | 365.4 | 195.2 | 1,337.3 |
| Total | | | | | | | | |
| 2015 | 74,744.9 | 64,276.1 | 10,138.4 | 13,237.1 | 15,354.3 | 12,948.3 | 12,598.0 | 10,468.8 |
| 2016 | 93,616.2 | 81,252.4 | 15,443.9 | 15,825.1 | 19,267.0 | 16,517.9 | 14,198.5 | 12,363.8 |
| 2017 | 112,341.4 | 94,866.9 | 17,981.8 | 19,338.5 | 22,157.4 | 18,423.1 | 16,966.1 | 17,474.5 |

Source: Regulator for Energy and Water Services

Table 4. Estimated total GWh produced by connected PVs by region/district and year (NUTS 3 and LAU 1)

| National NUTS 3 LAU 1 | MALTA | Malta | | | | | Gozo and Comino | |
|---------------------------------|--------------|------------------|------------------|---------------|---------|----------|-----------------|------|
| | | Southern Harbour | Northern Harbour | South Eastern | Western | Northern | Gozo and Comino | |
| | | | | | | | | |
| 2015 | 94.9 | 81.6 | 12.9 | 16.8 | 19.6 | 16.4 | 15.9 | 13.3 |
| 2016 | 127.2 | 110.4 | 21.0 | 21.5 | 26.3 | 22.4 | 19.2 | 16.8 |
| 2017 | 155.3 | 131.1 | 24.9 | 26.7 | 30.6 | 25.5 | 23.4 | 24.2 |

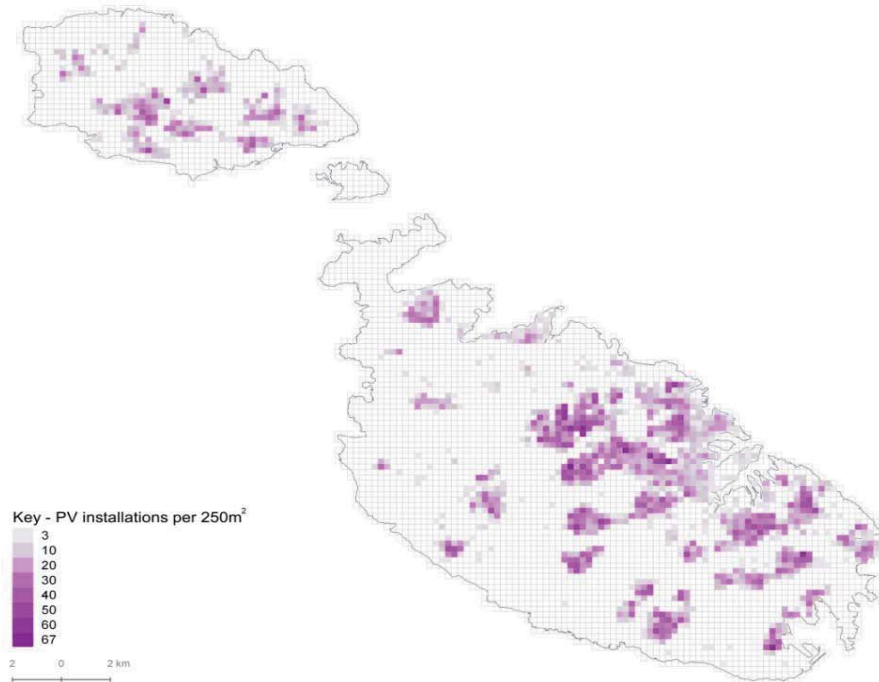
Notes:

1. Estimated output (GWh) for MALTA was based on data provided by the Energy and Water Agency based on PV meter readings. Estimated output (MALTA) was based on the relation between actual data (kWh) provided by Enemalta to the Energy and Water Agency and the kWp installations as provided by the Regulator for Energy and Water Services.

2. Output (mWh) for regions (NUTS 3), districts (LAU 1) and localities (LAU 2) was estimated on the basis of the corresponding kWp effectively connected to grid.

Source: NSO estimates based on actual data provided by the Energy and Water Agency

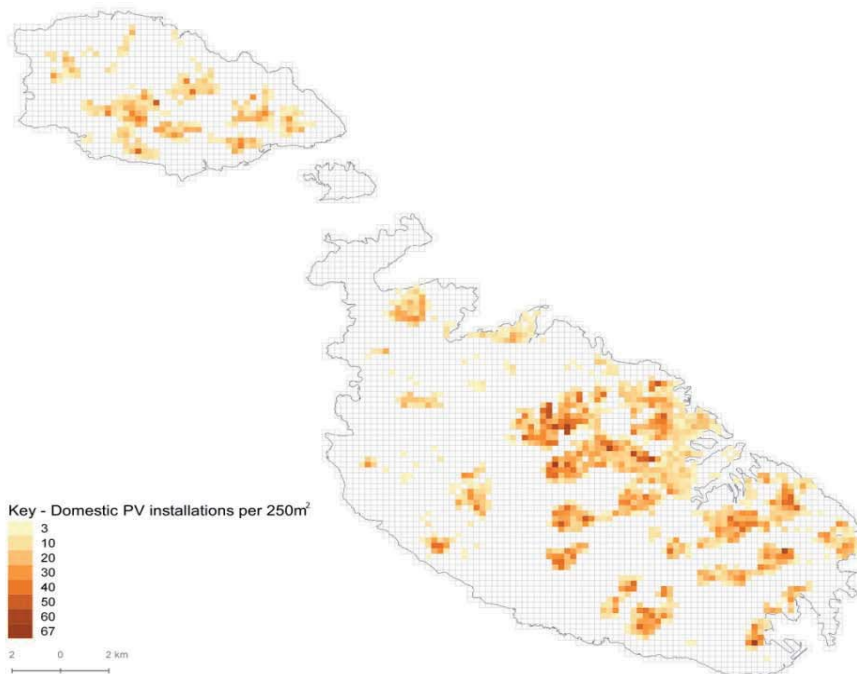
Map 1. Total PV installations using 250m² grid cells: 2017



Notes:

1. Each square represents an area of 250m².
2. Each grid cell shows the total number of PVs installed in that particular area. Grid cells containing less than three PV installations are omitted.

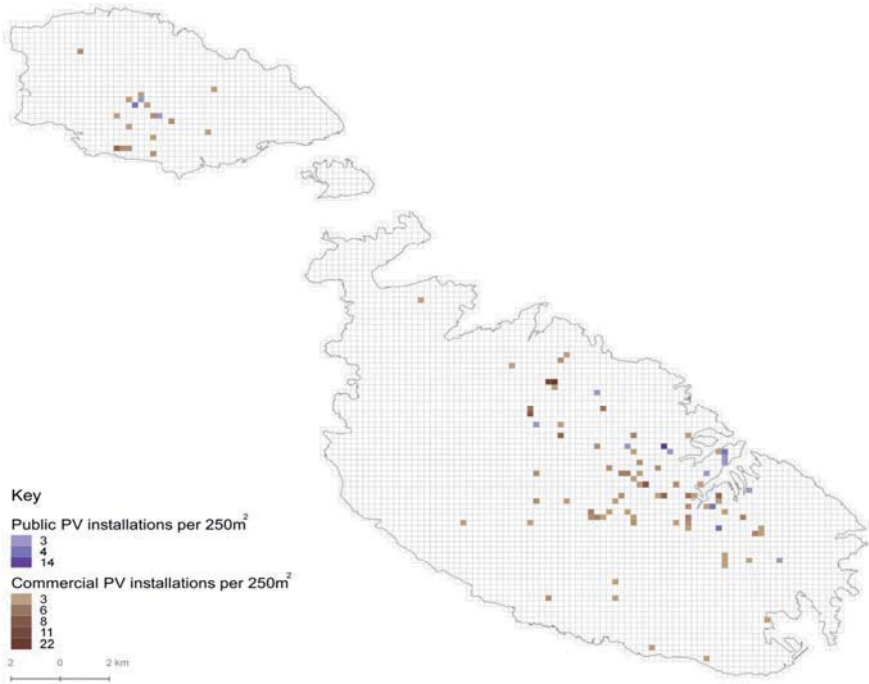
Map 2. Domestic PV installations using 250m² grid cells: 2017



Notes:

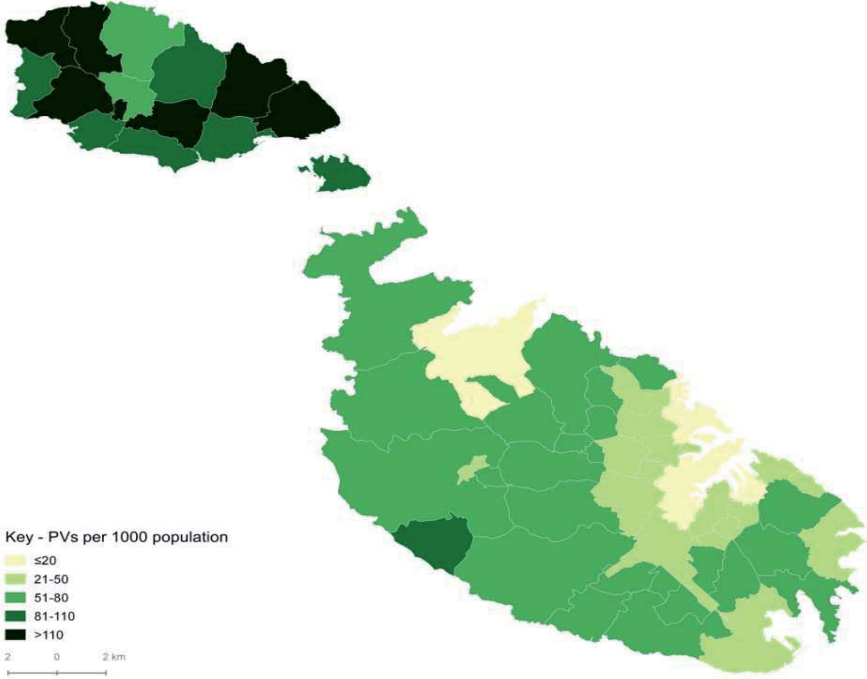
1. Each square represents an area of 250m².
2. Each grid cell shows the total number of PVs installed in that particular area. Grid cells containing less than three PV installations are omitted.

Map 3. Public and commercial PV installations using 250m² grid cells: 2017

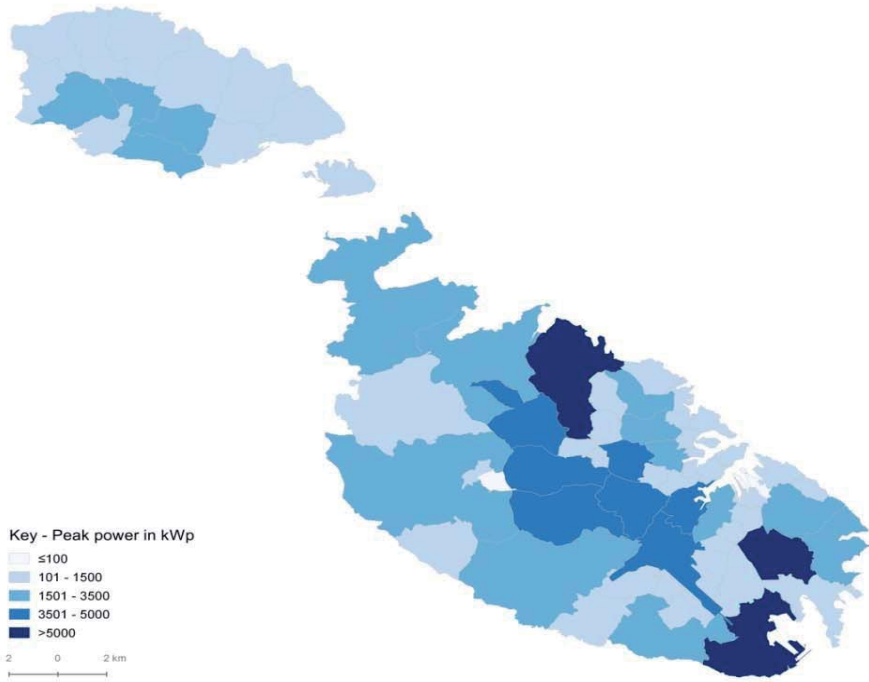


- Notes:
1. Each square represents an area of 250m².
 2. Each grid cell shows the total number of PVs installed in that particular area. Grid cells containing less than three PV installations are omitted.

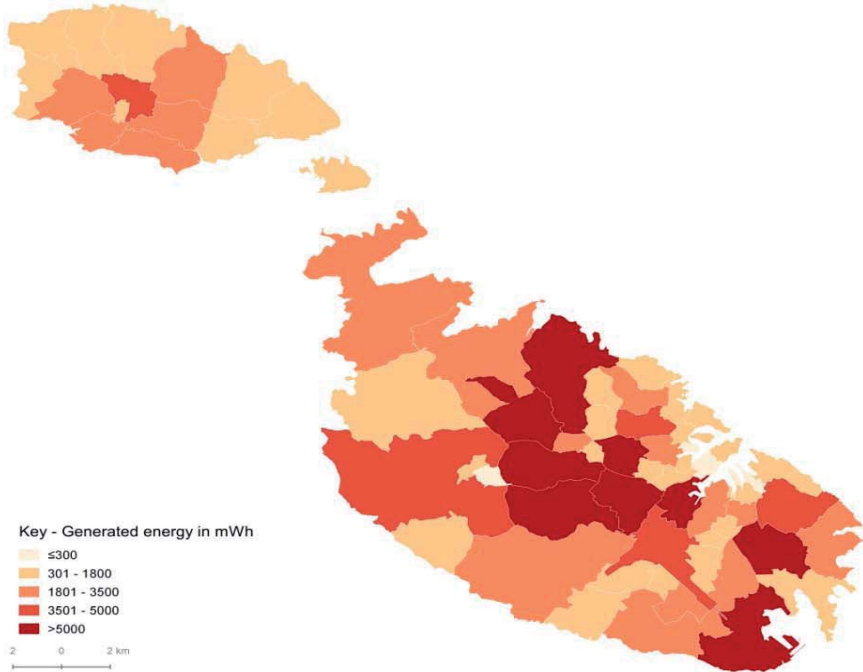
Map 4. Total PVs installed in the domestic sector per 1,000 residents: 2017 (LAU 2)



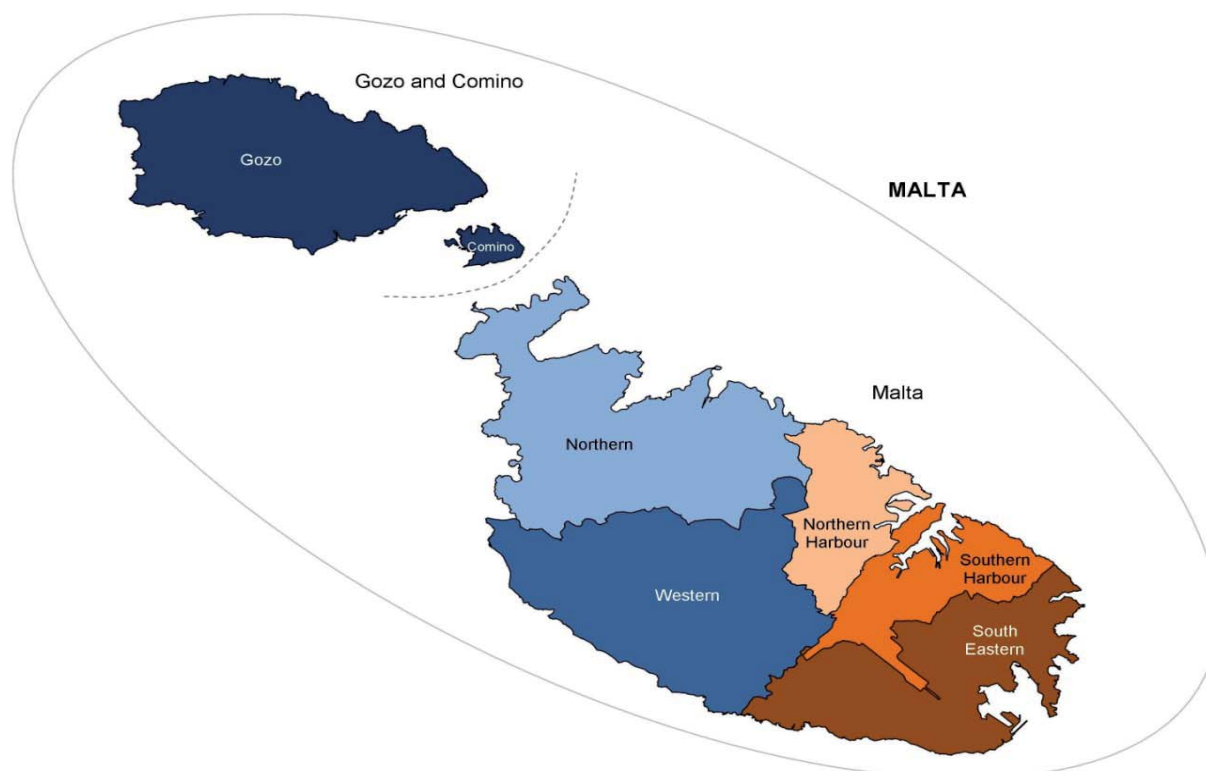
Map 5. Total kWp by locality: 2017 (LAU2)



Map 6. Total estimated mWh by locality: 2017 (LAU2)



Graphical Illustration of MALTA by NUTS Classification



Districts classification

Southern Harbour

Cospicua; Fgura; Floriana; Ғal Luqa; Ғaž-Žabbar; Kalkara; Marsa; Paola; Santa Luċija; Senglea; Ғal Tarxien; Valletta; Vittoriosa; Xghajra.

Northern Harbour

Birkirkara; Gżira; Ғal Qormi; Ғamrun; Msida; Pembroke; San Ġwann; Santa Venera; St Julian's; Swieqi; Ta' Xbiex; Tal-Pietà; Tas-Sliema.

South Eastern

Birżebbuġa; Gudja; Ғal Għaxaq; Ғal Kirkop; Ғal Safi; Marsaskala; Marsaxlokk; Mqabba; Qrendi; Żejtun; Żurrieq.

Western

Ғad-Dingli; Ғal Balzan; Ғal Lija; Ғ'Attard; Ғaž-Žebbuġ; Iklin; Mdina; Mtarfa; Rabat; Siġġiewi.

Northern

Ғal Għargħur; Mellieħa; Mġarr; Mosta; Naxxar; St Paul's Bay.

Gozo and Comino

Fontana; Għajnsielem; Għarb; Għasri; Munxar; Nadur; Qala; San Lawrenz; Ta' Kerċem; Ta' Sannat; Victoria; Xagħra; Xewkija; Żebbuġ.

Methodological Notes

1. The main source of data is the Regulator for Energy and Water Services.
2. Statistics for years 2016 - 2017 are provisional and may be subject to revision.

Definitions:

3. **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.
4. **kWp:** kilowatt peak - in the solar industry, kilowatt peak means the peak power rating of a panel.
5. **kWh:** kilowatt hour - a unit of energy equal to 1,000 watt-hours. It is normally used as a billing unit for energy delivered to consumers by electricity providers. The units of measurement are as follows:
kWh: kilowatt hour = 1 thousand watt-hours
mWh: megawatt hour = 1 million watt-hours
GWh: gigawatt hour = 1 billion watt-hours
6. Commercial sector includes industry.
7. Public sector includes institutional households.
8. The term installation refers to a collection of PV panels installed as one PV system.
9. Installation date refers to the date when the PV system is actually connected to the Feed-in Tariffs grid.
10. Any quotations from this news release are to be cited and/or referenced.
11. More information relating to this news release may be accessed at:
Statistical concept: <https://nso.gov.mt/metadata/concepts.aspx>
Sources and methods:
[https://nso.gov.mt/metadata/classificationdetails.aspx?id=Districts%20\(Local%20Administrative%20Unit\)](https://nso.gov.mt/metadata/classificationdetails.aspx?id=Districts%20(Local%20Administrative%20Unit))
12. A detailed news release calendar is available on:
https://nso.gov.mt/en/News_Releases/Release_Calendar/Pages/News-Release-Calendar.aspx