

SOLAR PV SNAPSHOT

OF SINGAPORE
2Q 2021

INSTALLED CAPACITY GREW BY

18% IN 2Q 2021



TOP CONTRIBUTORS TO INSTALLED CAPACITY



TOP CONTRIBUTORS TO NUMBER OF SOLAR INSTALLATIONS



PLANNED INSTALLATIONS

~190 MWp

of installed capacity expected by end-2021.

DECOMMISSIONED INSTALLATIONS

~4 MWp

of installed capacity decommissioned since start of 2008.



In Jun 2021, Shell and JTC announced plans to build Singapore's largest solar farm yet in Semakau Landfill. The 72MWp project will be as big as 112 football fields, and will produce enough energy to power 17,500 households.



Smart Energy, Sustainable Future

SINGAPORE SOLAR PHOTOVOLTAIC REPORT 2Q 2021

This submission provides an update on the key solar photovoltaic (PV) statistics (i.e. installed capacity and number of installations) in Singapore for 2Q 2021.

2. There were 4,750 grid-connected solar PV installations as at end 2Q 2021, with a combined installed capacity of 527.0 megawatt-peak (MWp) (see [Annex A](#)).

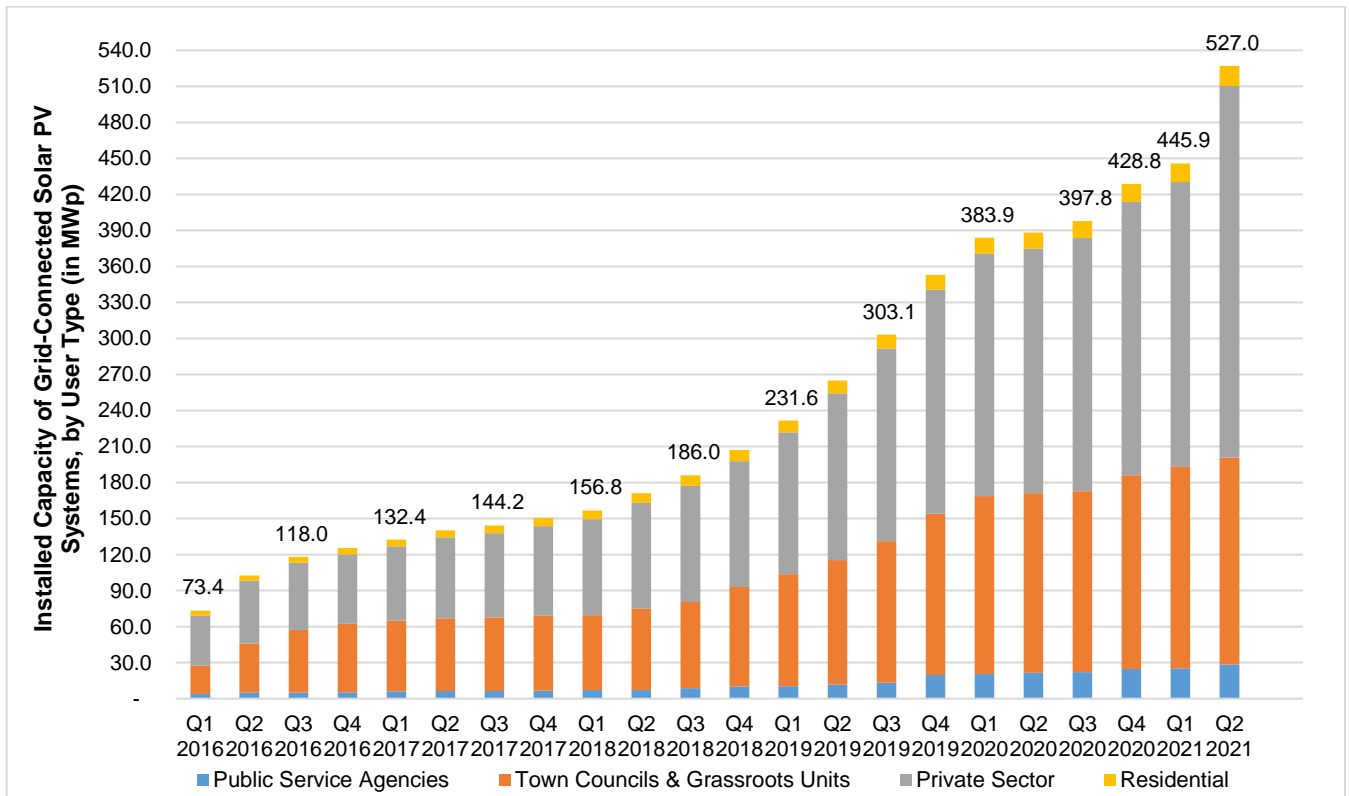
Installed Capacity

3. The total installed capacity of grid-connected solar PV systems was 527.0MWp as at end 2Q 2021. This was a 18.2% (81.1MWp) increase from the preceding quarter, attributed to 158 new installations in 2Q 2021. There was a higher quarter-on-quarter solar growth in Q2 (18.2%) as compared to Q1 (4.0%).

4. The private sector contributed majority of the solar PV capacity (58.8% or 309.7MWp), followed by town councils & grassroots units (32.7% or 172.2MWp). The remaining PV capacity contributions were from public service agency (5.4% or 28.4MWp) and residential (3.2% or 16.7MWp) PV installations (see [Annex B](#)).

5. [Figure 1](#) provides a snapshot of the installed capacity of grid-connected solar PV installations from 2016 to 2Q 2021.

Figure 1: Installed Capacity of Grid-Connected Solar PV Systems (in MWp), 1Q 2016 – 2Q 2021 (as at end of each quarter)



Note:

Historical values have been revised with the incorporation of new information on de-commissioned installations and updates from SP on registration parameters.

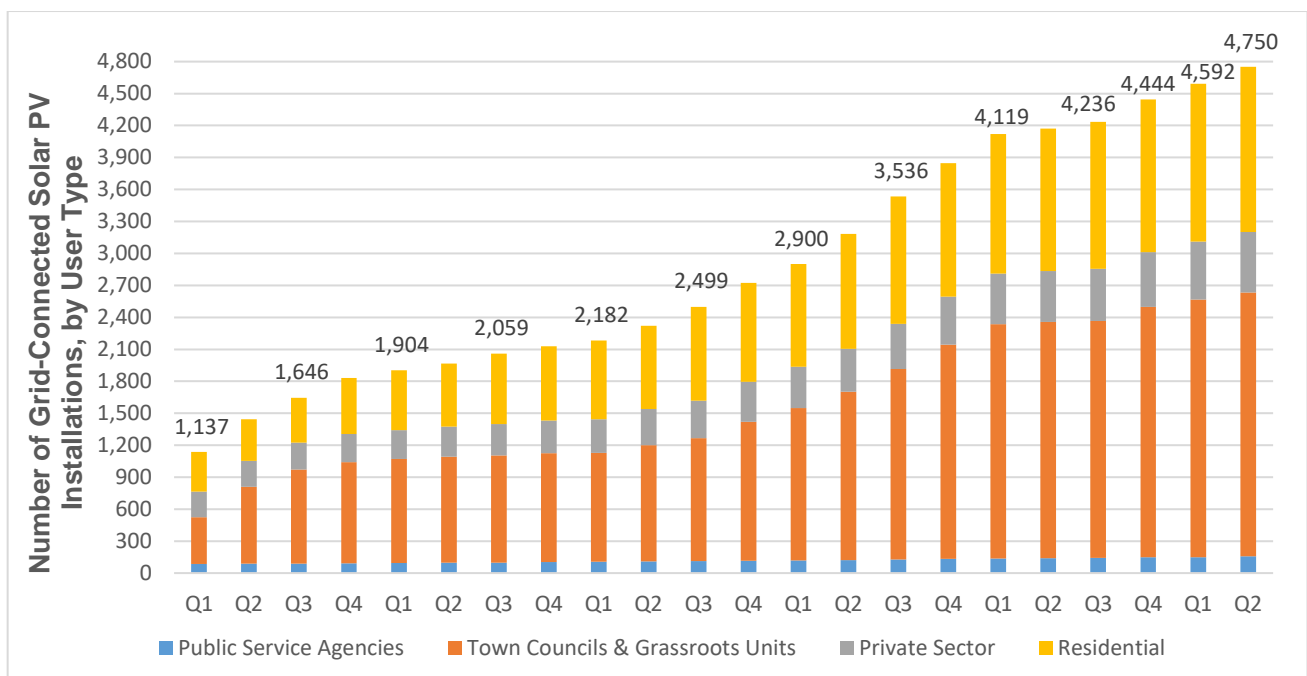
Number of Installations

7. There were 158 new grid-connected solar PVs installed in 2Q 2021, bringing the total number of installations in Singapore to 4,750.

8. Town councils & grassroots units accounted for the majority (52.1% or 2,474 installations) of total installations, followed by the residential (32.6% or 1,550 installations) and private (12.0% or 568 installations) sectors. Public service agencies constituted the remaining 3.3% (or 158 installations) of total installations (see Annex C).

9. Figure 2 provides a snapshot of the number of grid-connected solar PV installations from 2016 to 2Q 2021.

Figure 2: Number of Grid-Connected Solar PV Installations, 1Q 2016 – 2Q 2021 (as at end of each quarter)



Note:

Historical values have been revised with the incorporation of new information on de-commissioned installations and updates from SP on registration parameters.

Planned Installations

12. As at end 2Q 2021, a combined installed capacity of 87.2MWp (not yet installed) is planned for grid-connection by Q3 2021 and 190.0MWp is slated for grid-connection by end 2021.

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ANNEX A

INSTALLED CAPACITY OF GRID-CONNECTED SOLAR PV SYSTEMS, Q1 2016 – Q2 2021 (AS AT END OF EACH QUARTER)

	Unit: MWp																					
	2016				2017				2018				2019				2020				2021	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Total	73.4	102.6	118.0	125.5	132.4	140.3	144.2	150.6	156.8	171.1	186.0	207.1	231.6	265.0	303.1	352.9	383.9	388.3	397.8	428.8	445.9	527.0
Residential	4.1	4.3	4.6	5.2	5.6	5.9	6.4	6.9	7.4	7.9	8.6	9.3	9.8	10.7	11.3	12.2	13.1	13.5	14.2	14.9	15.7	16.7
Non-Residential	69.3	98.3	113.4	120.3	126.8	134.4	137.8	143.7	149.5	163.2	177.4	197.9	221.7	254.4	291.7	340.8	370.8	374.8	383.6	413.9	430.2	510.3
Public Service Agencies	4.0	5.0	5.0	5.4	6.2	6.3	6.3	6.6	7.1	7.3	8.8	10.1	10.3	11.8	13.4	19.8	20.4	21.6	22.1	24.8	25.4	28.4
Town Councils & Grassroots Units	23.4	40.8	52.3	57.0	58.8	60.5	61.4	62.4	62.5	67.5	71.8	83.0	93.4	103.6	117.9	134.4	148.3	149.5	150.5	161.3	167.6	172.2
Private Sector	41.9	52.5	56.1	58.0	61.8	67.6	70.1	74.6	79.9	88.4	96.8	104.8	118.1	139.0	160.5	186.6	202.0	203.6	211.0	227.8	237.2	309.7

Source: SP PowerGrid Ltd (SPPG)

	Unit: MWac																					
	2016				2017				2018				2019				2020				2021	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Total	56.5	79.0	90.9	96.6	101.9	108.0	111.1	115.9	120.8	131.7	143.2	159.5	178.3	204.1	233.4	271.8	295.6	299.0	306.3	330.2	343.3	405.8
Residential	3.1	3.3	3.5	4.0	4.3	4.5	4.9	5.3	5.7	6.1	6.6	7.1	7.6	8.2	8.7	9.4	10.1	10.4	10.9	11.5	12.1	12.9
Non-Residential	53.4	75.7	87.3	92.6	97.7	103.5	106.1	110.6	115.1	125.7	136.6	152.4	170.7	195.9	224.6	262.4	285.5	288.6	295.4	318.7	331.2	392.9
Public Service Agencies	3.1	3.8	3.8	4.1	4.8	4.8	4.8	5.1	5.5	5.6	6.7	7.8	7.9	9.1	10.3	15.3	15.7	16.6	17.0	19.1	19.5	21.9
Town Councils & Grassroots Units	18.0	31.4	40.3	43.9	45.2	46.6	47.3	48.1	48.1	52.0	55.3	63.9	71.9	79.8	90.8	103.5	114.2	115.2	115.9	124.2	129.1	132.6
Private Sector	32.3	40.4	43.2	44.6	47.6	52.0	54.0	57.5	61.5	68.1	74.6	80.7	90.9	107.0	123.6	143.7	155.6	156.8	162.5	175.4	182.6	238.4

Source: SP PowerGrid Ltd (SPPG) & Energy Market Authority (EMA)

Note:

- a. *Historical values have been revised with the incorporation of new information on de-commissioned installations and reclassification of installations.*
- b. *Figures may not add up to the total due to rounding.*
- c. *MWp refers to megawatt peak, which is a typical measure of the installed nameplate capacity of solar PV systems. MWp represents the amount of electric power that can be produced by a solar PV system at its peak.*
- d. *MWac refers to the Alternating Current (AC) capacity of the inverters used in solar PV installations.*

NUMBER OF GRID-CONNECTED SOLAR PV INSTALLATIONS, Q1 2016 – Q2 2021 (AS AT END OF EACH QUARTER)

	2016				2017				2018				2019				2020				2021	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Total	1,137	1,443	1,646	1,830	1,904	1,965	2,059	2,130	2,182	2,320	2,499	2,722	2,900	3,182	3,536	3,846	4,119	4,172	4,236	4,444	4,592	4,750
Residential	372	389	421	524	562	591	660	698	737	781	880	927	963	1,076	1,196	1,253	1,308	1,336	1,379	1,432	1,482	1,550
Non-Residential	765	1,054	1,225	1,306	1,342	1,374	1,399	1,432	1,445	1,539	1,619	1,795	1,937	2,106	2,340	2,593	2,811	2,836	2,857	3,012	3,110	3,200
Public Service Agencies	86	88	89	91	95	97	98	103	107	110	113	117	120	123	127	134	138	141	143	148	149	158
Town Councils & Grassroots Units	438	723	882	951	975	995	1,006	1,022	1,021	1,091	1,154	1,304	1,429	1,578	1,788	2,011	2,199	2,216	2,224	2,350	2,419	2,474
Private Sector	241	243	254	264	272	282	295	307	317	338	352	374	388	405	425	448	474	479	490	514	542	568

Source: SP PowerGrid Ltd (SPPG)

Note:

a. Historical values have been revised with the incorporation of new information on de-commissioned installations and reclassification of installations.