ENERGY MARKET AUTHORITY
Our Clean Energy Future

MEDIA FACTSHEET

2 March 2026

Singapore to Accelerate Solar Deployment to Meet 3 GWp Solar Target by 2030

With the increase in Singapore's solar deployment target to 3 gigawatt-peak (GWp) by 2030, the Government will be ramping up efforts to deploy solar across more viable surfaces. This includes tapping on all feasible rooftops, land, and water spaces as well as exploring more innovative solar deployments such as overhang solar that could serve as shelters, canopies at open-air car parks, and other suitable areas.

2 Singapore achieved the milestone of 2 GWp of installed solar capacity in 2025. This has been driven by solar installations' increasing cost-competitiveness and Government-led programmes such as SolarNova by the Housing & Development Board, as well as SolarRoof and SolarLand by JTC on industrial real estate. At present, rooftop solar is estimated to make up more than 80% of the total installed capacity.

3 Solar deployment by private commercial, industrial and residential users has also been rising. The payback period for home solar power systems has improved to as short as five years due to decline in costs of solar panels. Some solar power vendors also offer solar "rent-to-own" plans that can reduce upfront costs of solar installations. Owners of solar power systems can also sell the renewable energy certificates (RECs) generated from solar energy for additional income.

4 The new solar target of 3 GWp will significantly advance Singapore's transition towards cleaner energy sources. 3 GWp of solar can generate 2,800 GWh of electricity a year, sufficient to meet the annual electricity needs of around half a million households. Mr Puah Kok Keong, Chief Executive of the Energy Market Authority, said: "Singapore is already one of the world's most solar-dense cities, but we can do more. We are committed to maximising opportunities for solar deployment while pursuing other low-carbon energy pathways. Our new solar target reflects Singapore's commitment to building a cleaner, more resilient energy system. This important

initiative requires strong collaboration across government, industry and the community. We look forward to partnering our stakeholders to accelerate solar deployment and support Singapore's energy transition."

5 While solar is currently the main source of renewable energy that can be harnessed domestically, it can realistically contribute only up to around 10% of Singapore's projected energy needs by 2050. With limited domestic energy sources, Singapore will continue to pursue a diversified energy mix to reduce carbon emissions from power generation, while ensuring energy security and the power system's resilience.

Annex A: Information on Solar Energy
Annex B: Government-led solar programmes

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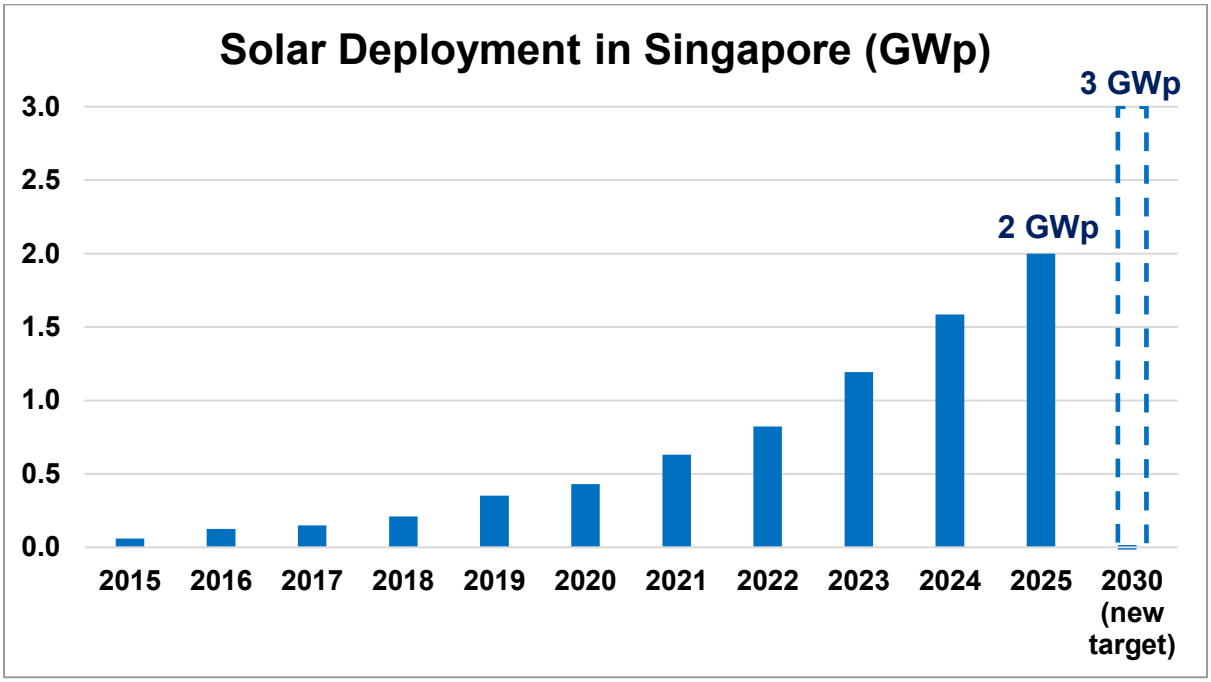
About the Energy Market Authority

The Energy Market Authority (EMA) is a statutory board under the Singapore Ministry of Trade and Industry. Through our work, we seek to build a clean energy future that is resilient, sustainable, and competitive. We aim to ensure a reliable and secure energy supply, promote effective competition in the energy market and develop a dynamic energy sector in Singapore. Visit www.ema.gov.sg for more information.

Annex A: Information on Solar Energy

Solar is the most viable renewable energy source for electricity generation for Singapore today. It contributes towards lowering our national carbon emissions, and helps enhance Singapore's energy security as a domestic source.

Referring to the chart below, solar deployment has increased steadily over the past years to reach the target of 2 GWp in 2025.



Solar Information for Consumers

1. Benefits of installing solar

   Contribute to lowering emissions. Solar is a renewable energy source that does not emit any greenhouse gas.

   Achieve cost savings. Consumers can expect to save costs on electricity as solar is generally cheaper than grid electricity. Solar can be used to offset their electricity consumption, and the excess solar-generated electricity can be sold to the grid for income.

2. Costs of installing solar

   The costs of installing a solar PV system depends on the size of the system and how the system is deployed (e.g. on rooftop or integrated into the building façade).

Consumers can recover their upfront installation costs over the system's lifespan through the electricity generated, or payback period.

a) Upfront Costs
   - The upfront cost for a rooftop PV system can range from S$1,000 per kilowatt peak (kWp) for a 1,000 kWp industrial rooftop PV system, to up to S$1,600 per kWp for a smaller 10 kWp residential rooftop PV system.

b) Recurring Costs
   - The annual operation and maintenance costs for residential rooftop PV systems typically form around 1-2% of the system's cost.
   - It is generally recommended that maintenance works for solar PV systems are carried out every six to twelve months.

c) Payback Period
   - The payback period varies depending on factors such as size of the system, electricity usage patterns and overall electricity consumption.
   - For residential solar installations, the average payback period is about five to seven years. Consumers with higher electricity consumption levels and larger solar PV systems may see shorter payback periods.

3. <u>Deployment models</u>

There are typically five main deployment models for solar installations.

a) Direct Ownership
   - Consumers own the solar PV installation by either paying for the full cost upfront or a fixed monthly instalment fee through a bank loan.

b) Solar Leasing
   - Consumers buy solar-generated electricity from a solar company that owns the solar installation. The price that consumers pay for the solar-generated electricity will be based on the Power Purchase Agreement (PPA) between the consumer and solar company.

c) Rooftop Leasing
   - Consumers rent rooftop space to a solar company, with all the solar-generated electricity being sold back to the grid.
   - This is seen in the SolarRoof programme.

d) Rent-to-own model

- Consumers rent the solar PV installation with zero upfront costs and pay a fixed monthly fee to a solar company for a period of five to ten years. The ownership of the installation is transferred to the consumer after the contract period.

e) Offsite Power Purchase Agreements (PPAs)
   - Consumers enter into a PPA with a solar company to buy the electricity produced. This involves buying electricity generated from solar PV systems located elsewhere apart from consumers' own property or facility.
   - This is most seen in utility-scale solar deployment.

4. Renewable Energy Certificates

Beyond electricity bill savings, solar adopters can generate additional revenue through Renewable Energy Certificates (RECs). These certificates represent the environmental benefits of clean energy generation and can be sold to businesses and organisations seeking to offset their carbon footprint, creating a new income stream for solar users. The registration of RECs can be done via solar installers or through a third-party platform.

Annex B: Government-led Solar Programmes

1. **SolarNova** - Launched in 2014, the SolarNova programme is a Whole-Of-Government effort led by HDB to accelerate the deployment of solar photovoltaic (PV) systems in Singapore. This programme helps to promote and aggregate demand for solar PV across government agencies to achieve economies of scale, as well as drive the growth of Singapore's solar industry.

   As of December 2025, HDB has installed solar panels on around 5,300 blocks, or about half of all HDB blocks, under the SolarNova programme and other prior efforts. HDB will continue to install solar panels for other HDB blocks subject to site suitability.

2. **SolarRoof & SolarLand** - JTC's SolarRoof programme, introduced in 2017, focuses on deploying solar photovoltaic (PV) panels atop industrial buildings. The programme's initial phases focused on JTC-owned buildings and were later expanded to encourage wider solar adoption among JTC lessees. JTC's SolarLand programme, rolled out in 2018, harnesses temporary vacant land for solar generation, transforming under-utilised terrain into temporary solar farms. As of the first quarter of 2025, 875 MWp solar capacity has been deployed across JTC's industrial estates, including the latest PV deployment of 118 MWp on Jurong Island as Singapore's largest ground-mounted solar deployment. More details on the programmes can be found here.