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# Boosting Campus Solar Energy Production at NTU

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As part of the University's climate commitment, NTU Singapore is **investing** SG\$5.7 million to ramp up solar energy production. The initiative will see over 13,000 new solar photovoltaic (PV) panels installed on the NTU Smart Campus, in addition to the University's existing 19,000 solar panels installed in 2015. These solar PV panels absorb sunlight and convert it into electricity to power NTU's buildings and facilities.

When completed by the last quarter of 2023, the solar energy generated by the campus-wide solar PV system will increase by 74% compared to the current output. This means that the University will be able to churn out 11.8 million kilowatt-hours (kWh) of clean energy annually – enough to power over 5,300 two-room HDB flats for a year.

As all buildings and facilities on the NTU campus are currently partially powered by solar-generated electricity, the expansion of solar energy into its energy supply mix could help the University reduce 4,800 tonnes of carbon emissions a year.

The initiative is part of NTU's commitment to sustainability as outlined in the University's five-year strategic plan NTU2025 and is funded by the proceeds from the issuance of the NTU sustainability-linked bond launched in Oct 2021, which supports the University's wide-ranging corporate and sustainability goals and activities aligned with its Sustainability Manifesto. It is also in line with the Government's target to increase solar energy deployment here by five times by 2030 under the Singapore Green Plan.

Recent [research](#) found that the global green technology and sustainability market size was valued at US\$10.32 billion in 2020, and is projected to reach US\$74.64 billion by 2030, growing at a CAGR of 21.9% from 2021 to 2030. Green technologies include eco-friendly solutions that result in economic and social sustainability.

In clean technology production energy, an alternative natural fuel is used to generate power. Compared to fossil fuels, this fuel is less harmful to the environment. Furthermore, the major goal of green technology is to protect the environment as well as to repair the past damage done to the environment.

Moreover, various governments across the globe are investing heavily in green technology to conserve nature and reduce the negative impact on the environment, which is pushing the growth of the market.

The report notes that the unprecedented COVID-19 health crisis resulted in the artificial intelligence and analytics segments witnessing significant growth during the forecast period. This can be attributed to the growing adoption of artificial intelligence and analytics among manufacturing and other industries to resume their supply chain operations.

The surge in environmental awareness and increase in concerns among organisations as well as individuals regarding the global warming crisis is a key driver of this market's growth. Further, a rise in the adoption of RFID sensors that eliminate carbon emissions and an increase in consumer and industrial interest in the use of clean energy resources are among the major factors expected to boost the growth of the market in the coming years.

It is important to note, however, that high product and solution costs associated with green technology and sustainability solutions are factors that may inhibit the growth of the market to a certain extent. On the contrary, a rise in favorable government and private initiatives to tackle climate change and air pollution is an opportunistic factor of the market.