

ANNEX B – HDB’s Milestones in Driving Solar Initiatives in Singapore

Singapore’s tropical context presents HDB with great potential to harness solar energy from the rooftop spaces in HDB blocks. To establish solar energy as an alternative and renewable source of power that can be used for public housing in the long run, HDB embarked on first test-bedding, and subsequently implementing solar PV technology across HDB precincts, to build up our solar capabilities in solar PV technology progressively. The learning points gleaned from the application of solar technology were then shared with the industry to develop their capabilities.

Here are the key milestones in HDB’s solar energy journey:

- In **2008**, HDB conducted its **first solar test-bedding projects** at two existing precincts at Serangoon and Wellington.
- In **2009**, HDB commenced wide-scale test-bedding of solar PV in selected HDB precincts under the **Solar Capability Building Programme**, supported by funding from the Inter-Ministerial Committee for Sustainable Development (IMCSD) and Clean Energy Research and Test-bedding Programme (CERT).
- Completed in **2010**, Treelodge@Punggol is HDB’s first eco-precinct, and also the **first solar PV-integrated public housing**.
- Under the **solar leasing model first introduced in 2011**, private solar PV system developers would design, finance, install, operate and maintain the solar PV systems.

This model was subsequently developed on a wider and more sustainable scale. Town Councils managing the HDB blocks with solar panels will enter into a service agreement with the developer to pay for the solar power generated and consumed, at a preferential rate not higher than the retail electricity tariff rate. This helps the Town Councils to mitigate the rising cost of energy and prevent the raise of S&CC charges. The expertise of private enterprises is harnessed to maximise solar generation without additional cost to the Town Councils.

- In **Oct 2014**, HDB awarded the **first zero-dollar solar leasing tender**, with the full cost of the solar PV systems borne by the solar PV developers. Prior to this, part of the cost for solar leasing tenders had been funded by HDB, to kickstart the solar leasing programme. With economies of scale from the wider adoption of the solar leasing model, HDB no longer needed to fund the upfront cost of subsequent projects.
- In **June 2015**, HDB called the **first consolidated tender under the SolarNova programme**, for a solar capacity of 40 MWp. This initiative led by the EDB aims to accelerate solar deployment in Singapore through promoting and aggregating solar demand across government agencies. With HDB as the government's central procurement agency for solar panels, agencies with a smaller demand will benefit from economies of scale and enjoy solar energy at a lower cost. In **December 2015**, the tender was awarded to Sunseap Leasing Pte Ltd which offered a higher installed capacity of 76 MWp.

In support of Singapore's solar energy plans, HDB has committed to roll out 220MWp of solar panels at about 5,500 HDB blocks by 2020. HDB will be launching large-scale solar PV projects year-on-year under the SolarNova programme to achieve this target.

- HDB's contribution in driving the deployment of solar photovoltaic technology in Singapore, through HDB's Solar Capability Building Programme and Solar Leasing Model, also received recognition, both locally and internationally.
 - In **October 2015**, HDB was conferred the Singapore Energy Award 2015 (Organisation Category) at the Singapore International Energy Week 2015. The only recipient under the Organisation category, HDB is the first government organisation to bag this award.
 - On World Environment Day, **5 June 2016**, HDB was announced as the national winner of Singapore for the Energy Globe Award, an international award for sustainability. The Energy Globe Award honours projects that focus on energy efficiency, renewable energy, and the conservation of resources. HDB will be receiving the award later in end-October 2016.