

“Solar Harvest - Solar Energy Support Scheme for Schools and Welfare Non- Governmental Organisations”

Guide to Application

1. Introduction

1.1. Solar Harvest is introduced by the Government of the Hong Kong Special Administrative Region (“Government”) to subsidise and assist:

- (a) schools (except Government and profit-making schools); and
- (b) welfare non-Governmental organisations (“NGOs”) which are receiving recurrent subventions from the Social Welfare Department (“SWD”)

in installing small-scale solar energy generation systems at their premises.

1.2. Solar Harvest is planned to last for five years from the financial year 2019-20 to 2023-24.

1.3. This Guide provides guidance on application for joining Solar Harvest and sets out the basic requirements and responsibilities of participating schools and welfare NGOs.

2. Eligibility

2.1 The following schools and welfare NGOs which have the legal right to use their premises for installing small-scale solar energy generation systems are eligible to apply for joining Solar Harvest:

- (a) Non-Government primary, secondary and special schools as well as kindergartens¹ which are non-profit-making, including aided, caput, Direct Subsidy Scheme, kindergartens

¹ Including kindergartens, kindergarten-cum-child care centres and schools with kindergarten classes.

joining the kindergarten education scheme and non-profit making private schools; and

- (b) Welfare NGOs which are receiving recurrent subventions from the SWD.

3. Scope of Solar Harvest

3.1 Solar Harvest is a Government programme to promote the development of local renewable energy (“RE”). It provides subsidy and one-stop service to help eligible schools and welfare NGOs install small-scale solar energy generation systems at their premises. These schools and welfare NGOs can then join the Feed-in Tariff (“FiT”)² Scheme operated by the two local power companies. Under Solar Harvest, the Electrical and Mechanical Services Department (“EMSD”) will follow through the entire process of solar energy generation system installation (including conducting site visits and technical assessments, drawing up design of solar energy generation systems, procuring equipment, installing solar energy generation systems and conducting system testing, etc.) and facilitate the participation of eligible schools and welfare NGOs in the FiT Scheme (including submission of FiT applications to the power companies and liaison with the power companies on the grid connection arrangements, etc.). All the expenses in relation to the solar energy generation installation and FiT application (including capital costs of the solar energy generation systems, installation costs,

² CLP Power Hong Kong Limited and The Hongkong Electric Company, Limited introduced the FiT Scheme in October 2018 and January 2019 respectively. The FiT Scheme can encourage the private sector to invest in RE systems, as the power generated can be sold to the power companies at a rate higher than the normal electricity tariff rate to help recover the costs of investing in the RE systems, power generation and maintenance. Different FiT rates apply to systems of different generating capacity. The prevailing FiT rates are set at –

- (a) \$4 for $\leq 10\text{kW}$;
- (b) \$3 for $>10\text{kW}$ to $\leq 200\text{kW}$; and
- (c) \$2.5 for $>200\text{kW}$ to $\leq 1\text{MW}$.

Gross FiT will be adopted whereby FiT will be paid for all units of electricity generated by the RE systems. Any units of electricity used at the premises will be charged at the prevailing tariff rates.

The same FiT rate which applies to the RE system upon joining the FiT Scheme will be adopted for the entire lifetime of the RE system concerned, or until the end of 2033 (end of the Scheme of Control Agreements for the two power companies), whichever is the earlier. The FiT rates will be reviewed annually. Where there is a revision to the rates, the revised rates will apply to RE systems which begin joining the FiT Scheme after the announcement of that revision and before the announcement of the next revision.

costs of professional services, etc.) will be fully covered by the Government under Solar Harvest.

- 3.2 Only solar energy generation system is covered under Solar Harvest.
- 3.3 Solar energy generation systems for installation on rooftop, land and other locations can be considered under Solar Harvest, having regard to the prioritising criteria set out in paragraph 4.1 below.
- 3.4 Installation of new solar energy generation systems, as well as one-off installation / replacement of components of existing solar energy generation systems which have already been installed at the premises of the eligible schools and welfare NGOs can be considered under Solar Harvest, having regard to the prioritising criteria set out in paragraph 4.1 below.
- 3.5 As a general principle, small-scale solar energy generation systems with generating capacity of around 10 kW³ will be installed under Solar Harvest, though the actual generating capacity of solar energy generation systems to be installed under Solar Harvest will depend on the specific circumstances of individual sites. Solar energy generation systems with generating capacity exceeding 10 kW will also be considered having regard to the merit of individual cases.
- 3.6 Selected schools and welfare NGOs will be the owner of the solar energy generation systems installed under Solar Harvest. They will need to bear the costs of the on-going operation and maintenance of the solar energy generation systems, as well as the eventual removal of the solar energy generation systems at the end of their service lives. Upon completion of the installation of the solar energy generation systems, EMSD's Contractor(s) will provide maintenance service within the one-year defects liability period; thereafter schools and welfare NGOs shall make use of the FiT payments received or their other source of finance for supporting the on-going operation and maintenance costs of their solar energy generation systems.

³ In general, installation of a 10 kW solar energy generation system requires an area of around 100 m², equivalent to around one third of a standard basketball court. The estimated annual FiT payments received is around \$32,000 - \$40,000 under the prevailing \$4 per kWh FiT rate.

3.7 Under no circumstances shall the Government and its employees or agents be held liable for any loss or damage or liabilities arising from the solar energy generation systems installed under Solar Harvest howsoever caused.

4. Prioritising Criteria

4.1 As a general principle, we aim to benefit as many eligible schools and welfare NGOs as possible under Solar Harvest. Other criteria to be taken into account when prioritising applications received include but are not limited to the following:

- (a) Cost effectiveness of the solar energy generation systems (e.g. cost of installation of solar energy generation system or one-off installation / replacement of components of existing solar energy generation system (based on cost per kW), estimated annual electricity generation, etc.);
- (b) Site accessibility and safety issues;
- (c) Conditions of the premises (e.g. structural and electrical loading of the rooftop) and site readiness for solar energy generation installation works (e.g. the need to remove existing structure to make available space for installing solar energy generation systems, any envisaged concerns from the local community, etc.);
- (d) Availability of supporting documents and supplementary information (e.g. building records on roof floor, schematic electrical wiring diagrams and waterproof records, information on the existing solar energy generation systems (for application for one-off installation / replacement of components of existing solar energy generation systems), etc.);
- (e) Ability of the eligible schools / welfare NGOs to operate and maintain the solar energy generation systems to be installed under Solar Harvest for the entire lifetime of the solar energy generation systems concerned, or until the end of 2033⁴,

⁴ The FiT Scheme will last up to end of 2033.

whichever is the earlier (e.g. whether there are any restrictions set out in the land lease / tenancy agreements (if applicable) in relation to participation in Solar Harvest or the FiT Scheme; whether the eligible schools / welfare NGOs will join the FiT Schemes and the expected FiT payments received; and if they will not join the FiT Scheme, their source of finance for supporting the on-going operation and maintenance costs of the solar energy generation systems in future);

- (f) Whether there are existing functioning solar energy generation systems at the premises;
- (g) Whether the eligible schools / welfare NGOs have received / will receive alternative sources of funding⁵ for solar energy generation installations; and
- (h) Whether the eligible school / welfare NGO has submitted application to install more than one solar energy generation system and / or more than one application under Solar Harvest.

5. Processing of Applications

5.1. We will process applications according to the following steps:

- (a) Eligible schools and welfare NGOs may submit expression of interest (EOI) forms together with supporting documents and supplementary information (if available) to EMSD. For schools and welfare NGOs which submitted their applications during 2019 to 30 June 2022 but were not selected for installation of solar energy generation systems in the financial year 2019-20 to 2022-23, their applications will be rolled over and considered alongside with other fresh applications received on 31 March 2023. They do not have to submit fresh applications again;
- (b) Based on the information provided in the EOI forms, supporting documents and supplementary information (if

⁵ Eligible schools and welfare NGOs shall keep EMSD updated of the latest status of alternative sources of funding.

available), preliminary assessment will be conducted by EMSD on eligible schools and welfare NGOs with good potential of installing solar energy generation systems in accordance with the prioritising criteria set out in paragraph 4.1 above;

- (c) Consultant(s) to be engaged by EMSD will conduct site surveys at the shortlisted schools and welfare NGOs to assess the technical feasibility of solar energy generation installations, taking into account factors including usable area for solar energy generation installations, sufficiency of sunlight, roof / site accessibility, structural and electrical loadings and wind load, etc. Preliminary design of the solar energy generation systems will also be developed by the Consultant(s) to be engaged by EMSD;
- (d) Based on the site survey and assessment findings as well as the prioritising criteria set out in paragraph 4.1 above, EMSD will select schools / welfare NGOs for installation of solar energy generation systems at their premises according to steps (e) to (g) set out below⁶;
- (e) Selected schools and welfare NGOs will need to nominate a contact person to liaise with EMSD and its Contractor(s), enter into an agreement with the Government on the installation of solar energy generation systems and grant access to EMSD and its Contractor(s) to undertake relevant works, give consent to the design of the solar energy generation systems and all necessary supporting / ancillary works associated with the energy generation systems, authorise EMSD to handle matters in relation to the application of the FiT Scheme (if applicable)⁷ on behalf of the selected schools and welfare NGOs, give consent to the timeframe for the installation works and any other terms and conditions set by the Government, etc.;

⁶ Subject to the passage of the Appropriation Bill 2023 in the Legislative Council.

⁷ If selected schools / welfare NGOs decide not to join the FiT Scheme, they should advise the source of finance for supporting the on-going operation and maintenance of solar energy generation systems.

- (f) Contractor(s) to be engaged by EMSD will install the solar energy generation systems at the selected schools and welfare NGOs and handle matters in relation to the application of the FiT Scheme on behalf of the selected schools or welfare NGOs, if authorised; and
- (g) Contractor(s) will only provide maintenance service within the one-year defects liability period.

5.2. Eligible schools and welfare NGOs which submit applications **on or before 30 December 2022** (Batch 1 applications) will be handled with priority. Installation works for their solar energy generation systems will commence in April 2023 the earliest. For eligible schools and welfare NGOs which submit applications **on or before 31 March 2023** (Batch 2 applications), their applications will be considered within 2023 if not enough suitable sites are selected from Batch 1 applications for installation of solar energy generation systems in 2023-24. Installation works for Batch 2 applications will commence in July 2023 the earliest.

5.3. A tentative processing timetable for 2023-24 is set out below:

Batch 1 Applications	Batch 2 Applications	Activities
On or before 30 December 2022	On or before 31 March 2023	Submission of EOI forms, supporting documents and supplementary information (if available) by eligible schools and welfare NGOs
From December 2022	From February 2023	Preliminary assessment on eligible schools and welfare NGOs with good potential for solar energy generation installations based on the EOI forms, supporting documents and supplementary information received; conduct site surveys at schools and welfare NGOs

From February 2023	From May 2023	Notification of application results through letters
April 2023 – March 2024	July 2023 – March 2024	Installation of solar energy generation systems at selected schools and welfare NGOs

6. Undertaking to Operate the Solar Energy Generation Systems Installed under Solar Harvest

- 6.1. Selected schools and welfare NGOs will be required to operate the solar energy generation systems installed under Solar Harvest for the entire lifetime of the solar energy generation systems concerned, or up to the end of 2033, whichever is the earlier.
- 6.2. Solar energy generation systems installed under Solar Harvest are not transferrable.
- 6.3. In case selected schools and welfare NGOs fail to comply with paragraphs 6.1 and 6.2 above and no prior notification with reasonable explanation has been given to the Government, the Government reserves the right to consider possible redeployment of the capital items and other materials funded under Solar Harvest, including asking selected schools and welfare NGOs to, at their own cost, remove and return the solar energy generation systems installed to the Government.

7. How to Join Solar Harvest

- 7.1. Interested schools and welfare NGOs should return the completed EOI forms (at **Annex A**), supporting documents and supplementary information **on or before 30 December 2022 (Batch 1 applications) or 31 March 2023 (Batch 2 applications)**.

Original copy of the completed EOI should be returned by post.

We encourage participating schools and welfare NGOs to submit other supporting documents and supplementary information through electronic means as far as practicable in order to reduce the use of paper (submission of the relevant documents and information in hard copy will also be accepted). Postal and email addresses are set out below:

Postal address: Energy Efficiency Office, 7/F., Electrical and Mechanical Services Department Headquarters, 3 Kai Shing Street, Kowloon, Hong Kong
(Please state Solar Harvest on the envelope)

E-mail address:

Schools: greenschools2@emsd.gov.hk

(Please state the name of the participating school in the email)

Welfare NGOs: solarharvest@emsd.gov.hk

(Please state the name of the participating welfare NGO in the email)

For enquiry, please contact the Event Secretariat of EMSD by telephone at 3155 3977 or by e-mail –

Schools: greenschools2@emsd.gov.hk

Welfare NGOs: solarharvest@emsd.gov.hk

8. Important Points to Note

- 8.1. During the EOI stage, eligible schools and welfare NGOs should provide the supporting documents and supplementary information as set out in the EOI form as far as possible, so that their applications can be processed more quickly. Applications without the necessary documents or information in full will still be considered but will be accorded with lower priority.
- 8.2. Eligible schools and welfare NGOs are encouraged to consult the local community to assess whether the latter has any possible concerns (such as glare reflection, visual impact, etc.) in respect of the installation of solar energy generation systems in their neighborhood.

- 8.3. Selected schools and welfare NGOs will be the owner of the solar energy generation systems and they will have to bear the costs of the on-going operation and maintenance of the solar energy generation systems. Upon completion of the installation of the solar energy generation systems, EMSD's Contractor(s) will provide maintenance service within the one-year defects liability period, and thereafter the schools and welfare NGOs concerned shall make use of the FiT payments received or their other source of finance for supporting the on-going operation and maintenance costs of their solar energy generation systems.
- 8.4. Whether a solar energy generation system can be installed at a premises under Solar Harvest will be subject to the specific conditions of individual sites. Below are some examples of major issues which may render a site not readily suitable for installation of solar energy generation systems under Solar Harvest:
- (a) Insufficient structural loading of the building's rooftop;
 - (b) Limitation of the existing electricity supply network in supporting the proposed solar energy generation systems;
 - (c) Safety and accessibility concerns, e.g. no protective barriers on the building's rooftop;
 - (d) Roof water leakage problem;
 - (e) Insufficient sunlight, e.g. in a shaded area;
 - (f) The site is on a declared monument or graded historic building⁸; and
 - (g) Any restrictions set out in the land lease / tenancy agreements (if applicable) in relation to participation in Solar Harvest or the FiT Scheme.

⁸ The list of declared monument or graded historic building can be found from the following websites:
<https://www.amo.gov.hk/en/historic-buildings/monuments/index.html>
<https://www.amo.gov.hk/en/historic-buildings/historic-buildings-hk/assessment/index.html>

- 8.5. Upon completion of the project (i.e. installation of solar energy generation system and application of the FiT Scheme (where applicable) are both completed) and handover of the solar energy generation system to the selected school / welfare NGO concerned, the latter will be required to submit a progress report each year (e.g. no later than 1 month after the cut-off date) for the entire lifetime of the solar energy generation system concerned or until the end of 2033, whichever is the earlier. Information to be included in the progress report includes but is not limited to electricity generated by the solar energy generation system, FiT payments received and breakdown of the use of FiT payment received (e.g. for repair and maintenance of the solar energy generation system, implementation of educational programme, welfare services and other uses, etc.) within the reporting period. Template of the progress report will be provided by the Government to selected schools and welfare NGOs. Selected schools and welfare NGOs are required to provide further information in relation to the solar energy generation systems upon request by the Government.
- 8.6. Except for any third party materials, all intellectual property rights⁹ in all results, findings, compilations of data and information and any other materials provided in the EOI form, supporting documents, supplementary information and materials, progress reports and other publications and publicity materials created by participating schools and welfare NGOs under Solar Harvest (collectively referred to as “Materials”) shall belong to the participating schools and welfare NGOs. Participating schools and welfare NGOs shall grant unconditionally and irrevocably to the Government and its authorised users the right to copy, publish, issue and make available to the public copies of, and make an adaptation of the Materials.
- 8.7. Unless otherwise stated, all intellectual property rights in the solar energy generation systems (including the design of the solar energy generation systems) provided or installed under Solar Harvest shall belong to the Government immediately upon creation.

⁹ “Intellectual property rights” means patents, trade marks, service marks, trade names, design rights, copyright, domain names, database rights, rights in know-how, new inventions, designs or processes and other intellectual property rights whether now known or created in future (of whatever nature and wherever arising) and in each case whether registered or unregistered and including applications for the grant of any such rights.

- 8.8. Eligible schools are reminded to take note of the Education Bureau (EDB) Circular Memorandum (CM) No.168/2019 (at **Annex B**) setting out the requirements of schools' participation in the FiT Scheme, which include (i) submission of the notification form to the EDB for the participation in the FiT Scheme; and the approval or rejection letter issued by the power companies to EDB as soon as they are informed of the application results; (ii) applying to the EDB for prior approval in accordance with the prevailing requirements if any structural alterations of buildings are involved; (iii) using the related income from the FiT Scheme for purposes directly benefiting students of the schools (such as organising educational activities that promote environmental education and purchasing, hiring, repairing or maintaining RE facilities); and (iv) for schools in receipt of recurrent funding from the Government, not making use of EDB subsidies (including the Emergency Repairs and annual Major Repairs) to purchase, hire, install, replace, repair or maintain the RE facilities, and pay for the other recurrent costs of these facilities (if any). Schools should also take note of any other relevant circular(s) / CM(s) or documents as issued by EDB from time to time.
- 8.9. As stipulated in paragraph 4.9 of the Lump Sum Grant (LSG) Manual, it is the responsibility of board and management of subvented welfare NGOs to maintain proper control of the LSG and ensure that the use of the LSG meets the requirements and objectives set out in the Funding and Service Agreements (FSAs) and complies with the conditions spelt out in the LSG Manual. Subvented welfare NGOs are reminded to take note that the operation and maintenance of solar energy generation system are not of welfare nature and are not related to the requirements under FSAs, and cost apportionment will be required if subvented resources in cash or in kind such as manpower and premises are tapped for operating and maintaining the solar energy generation system under Solar Harvest and / or the FiT Scheme. Meanwhile, subvented welfare NGOs joining Solar Harvest and / or the FiT Scheme must ensure that there is no adverse impact on the subvented services or self-financing welfare services which are supported by SWD. Subvented welfare NGOs joining Solar Harvest and / or the FiT Scheme must keep separate accounting records of non-subvented activities from subvented activities.

9. Enquiries

- 9.1. For enquiries, please contact the Event Secretariat of EMSD by telephone at 3155 3977 or by e-mail-

Schools: greenschools2@emsd.gov.hk

Welfare NGOs: solarharvest@emsd.gov.hk

**Environment and Ecology Bureau
Electrical and Mechanical Services Department
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