

TPB Paper No. 10643

**For Consideration by
The Town Planning Board on 27.3.2020**

**Proposed Assessment Criteria for Considering Applications for
Solar Photovoltaic System made under
Section 16 of the Town Planning Ordinance**

Proposed Assessment Criteria for Considering Applications for Solar Photovoltaic System made under Section 16 of the Town Planning Ordinance

1. Purpose

This paper is to seek Members' agreement to the proposed Assessment Criteria for Considering Applications for Solar Photovoltaic (PV) System made under Section 16 of the Town Planning Ordinance.

2. Background

- 2.1 Developing renewable energy (RE) is an important part of the Government's effort in combating climate change. Feed-in Tariff (FiT) was introduced under the post-2018 Scheme of Control Agreements between the Government and the two power companies, i.e. The Hongkong Electric Company, Limited and CLP Power Hong Kong Limited to provide incentives for individuals and non-Government bodies to invest in RE, including solar PV system.
- 2.2 Installation of solar PV system as a stand-alone facility on vacant land for the FiT Scheme is regarded as 'Public Utility Installation' ('PUI')¹. Planning permission is required for solar PV system for the FiT Scheme on land use zones where PUI is a Column 2 use under the statutory plan concerned.
- 2.3 Since June 2018, a total of eight planning applications for solar PV system for the FiT Scheme have been received by the Town Planning Board (the Board).
- 2.4 The Rural and New Town Planning Committee (the Committee) of the Board considered application No. A/NE-TK/649 for solar PV system within "Agriculture" ("AGR") zone, the first of its kind, on 5.7.2019. The Committee decided to defer a decision on the application pending submission of further

¹ 'PUI' means any tank, structure or premises built on, over, or under ground level for the provision of water, sewerage, gas, electricity, broadcasting, television and telecommunications services to serve the local district.

information related to the technical feasibility of the proposal. The Committee further considered the application on 1.11.2019. Noting that there were still uncertainties on the technical feasibility and implementation of the proposed solar PV system, the Committee decided to approve the application on a temporary basis of 5 years to allow monitoring of the implementation progress of the proposed solar PV system and the condition of the site.

- 2.5 On 29.11.2019, the Committee considered another application (No. A/NE-KLH/578) for installation of solar PV system in “AGR” zone and was of the view that some assessment criteria should be formulated to facilitate assessment of such applications by the Committee. The Committee then decided to defer consideration of the application until the assessment criteria were available. At present, consideration of five planning applications for solar PV system for the FiT Scheme has been deferred and two other planning applications are scheduled for consideration by the Committee in April 2020.

3. Assessment Criteria

- 3.1 To facilitate assessment of applications for installation of solar PV system under the FiT Scheme, a set of assessment criteria setting out the requirements on technical feasibility, land use compatibility, infrastructure facilities, environmental, landscape and visual impacts has been prepared at **Annex I**. Relevant government bureau/departments have been consulted and their comments have been incorporated into the assessment criteria where appropriate. No objection or major comments have been received.
- 3.2 In addition, Members may take note of the following issues:

Approval period

- (a) Unless there is special circumstance to warrant a shorter approval period or the relevant statutory town plan only has provision to grant temporary approval of three years, planning permission for installation of solar PV system under the FiT Scheme as a ‘PUI’ can be granted on a permanent basis. The Environment Bureau (ENB) has no objection to granting a permanent approval.

Disposal of solar PV system

- (b) Solar PV panels do not have moving parts, and normally can be used for

more than 25 years. ENB considers that there is no imminent need to handle or recycle large quantities of solar PV panels and will make reference to international trends and practices to formulate suitable solution for disposal/recycling of solar PV panels in a timely manner. In this regard, there is no need for specific requirement on disposal of solar PV panel in granting planning permission for its installation.

4. Promulgation

Upon Members' agreement to the set of assessment criteria, a press release will be issued and the assessment criteria will be uploaded to the Board's website to inform the public of the promulgation of the assessment criteria, which shall take effect upon promulgation.

5. Decision Sought

Members are invited to consider and agree to the assessment criteria at **Annex I**.

Annex

Annex I Assessment Criteria for Consideration of Solar Photovoltaic System made under Section 16 of the Town Planning Ordinance

**PLANNING DEPARTMENT
MARCH 2020**

**Assessment Criteria for Considering Applications for Solar Photovoltaic System
made under Section 16 of the Town Planning Ordinance**

Feed-in Tariff and Solar Photovoltaic System

1. Development of renewable energy (RE) is an important part of the Government's efforts in combating climate change. Increasing the use of RE, a zero-carbon energy, can help decarbonize the electricity generation sector, which contributes to about two-thirds of the carbon emissions in Hong Kong. The policy is for the Government to take the lead in developing RE where technically and financially feasible and to create conditions that are conducive to community participation. Against this background, Feed-in Tariff (FiT) was introduced under the post-2018 Scheme of Control Agreements (SCAs) between the Government and the two power companies, i.e. The Hongkong Electric Company, Limited (HKE) and CLP Power Hong Kong Limited (CLP) to provide incentives for individuals and non-Government bodies to invest in RE, including solar photovoltaic (PV) system. Under the SCAs, FiT is offered for electricity generated by the RE systems throughout the project life of the RE systems¹ or until 31 December 2033, whichever is the earlier.
2. A solar PV system includes solar PV panels, inverter(s), energy meters, distribution board(s), cables and other components as necessary to form a complete grid connected PV installation. The two key components are PV panels and inverter(s). Solar PV panels convert sunlight into electricity. The inverter(s) convert the output direct current (DC) of the solar panels into alternating current (AC). A typical solar PV system is shown in **Figure 1**.

Statutory Planning Provision for Solar Photovoltaic System

3. In general, solar PV systems are commonly found on (i) rooftop of New Territories Exempted House (NTEH); (ii) rooftop of private buildings; and (iii) vacant land.
4. If installation of solar PV system is incidental to, directly related and ancillary to and commensurate in scale with a permitted use/development within the same zone or at the rooftop of NTEH or private building, it is regarded as an ancillary use for supplementing power supply to the use/development, household or building and no planning permission for the system is required.
5. For Installation of solar PV system as a stand-alone facility on vacant land for the FiT Scheme, it would be regarded as 'Public Utility Installation' ('PUI'). PUI is always permitted in "Commercial", "Government, Institution or Community", "Industrial", "Industrial (Group D)", "Open Storage", "Other Specified Uses" ("OU") annotated "Business" and "OU" annotated "Industrial Estate" zones.
6. Planning application is required for stand-alone solar PV system for the FiT Scheme in areas where 'PUI' is a Column 2 use under the statutory plan concerned.

Assessment Criteria for Planning Applications

¹ The lifespan of a solar PV system is about 20 to 25 years.

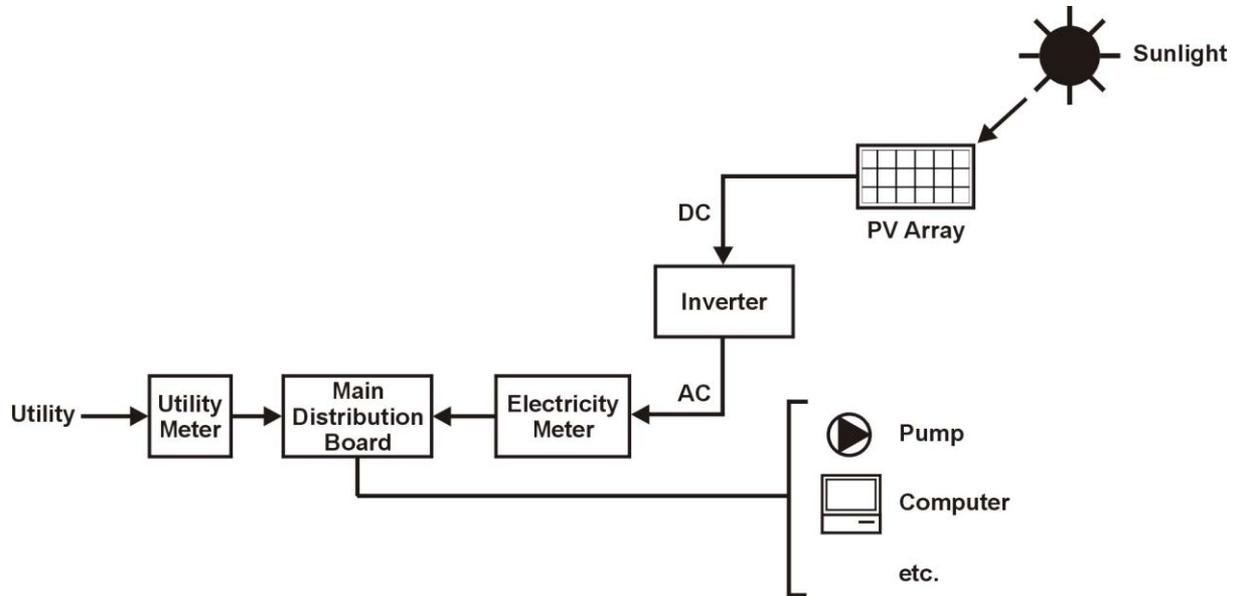
7. The following criteria should be taken into account in assessing planning applications for solar PV system made under section 16 of the Town Planning Ordinance:
- a) it is a prerequisite for the applicant to obtain the ‘Consent Letter’ or ‘Acknowledgement Letter’ from HKE and CLP respectively and submit a copy of the document together with the application to demonstrate the technical feasibility of the scheme in terms of serviceability, electrical safety and output generated by the solar PV system;
 - b) unless with strong justifications, the proposed solar PV system, including the height of the proposed structures, should be in keeping with the surrounding area/developments and commensurate with the function(s) it performs;
 - c) for optimisation of use of land, favourable consideration may be given if viability of co-existence of the proposed solar PV system and uses that are in line with the long-term planning intention of the land use zoning of the application site could be satisfactorily demonstrated;
 - d) it has to be demonstrated to the satisfaction of the relevant government departments that the proposed solar PV system will not have significant adverse impacts, including those relating to the environment, drainage, sewerage, traffic, geotechnical safety, landscape and visual and, where needed, appropriate measures are to be adopted to mitigate the impacts;
 - e) unless with strong justifications², proposals involving extensive site formation, vegetation clearance/tree felling, excavation or filling of land/pond are generally not supported;
 - f) planning applications with proposed felling of existing Old and Valuable Trees (OVTs), potentially registrable OVTs, and trees of rare or protected species should not be supported. If tree removal is unavoidable, subject to the advice of relevant government departments, compensatory tree planting and/or landscape treatments should be provided within the application site as appropriate;
 - g) for solar PV system falling within water gathering grounds, information should be provided to the satisfaction of the relevant government departments that the system, including its installation, maintenance and operation, will not contaminate the water supply;
 - h) where the installation is proposed to be in area close to airports and/or heliports, or major roads, it has to be demonstrated to the satisfaction of the relevant government departments that the solar PV system should not cause glare to pilots/drivers and/or unacceptable adverse impact on aviation and/or traffic safety;
 - i) the applicant(s) of application on active agricultural land/fish ponds or land with agricultural rehabilitation potential in the “Agriculture” zone should demonstrate to the satisfaction of the relevant government departments that the solar PV system

² Ground-mounted solar PV system is usually on steel frame or concrete plinth. It should normally not involve extensive site formation, excavation or filling of land.

proposal is compatible with and proportionate to the agricultural or fisheries operation on site;

- j) as there is a general presumption against development in the “Green Belt” (“GB”) zone, planning application within the “GB” zone is normally not supported unless with strong justifications. It has to be demonstrated to the satisfaction of the relevant government departments that the proposed solar PV system would not adversely affect the landscape character/resources of the “GB” zone and jeopardise the integrity of the zone as a buffer;
- k) due to the sensitive nature of the conservation zones, such as the “Conservation Area”, “Coastal Protection Area” and “Site of Specific Scientific Interest” zones, planning application for solar PV system within such zones is normally not supported to avoid any possible irreversible damages caused to the ecology or environment of the area within the zone;
- l) all other statutory or non-statutory requirements of the relevant government departments must be met. Depending on the specific land use zoning of the application site, the relevant Town Planning Board guidelines should be observed, as appropriate; and
- m) approval conditions to address the technical issues, if any, within a specified time and clauses to revoke the permission for non-compliance with approval conditions may be imposed as appropriate.

Figure 1



Extracted from EMSD website HK RE Net:

https://re.emsd.gov.hk/english/solar/solar_ph/PV_Systems.html

Typical Solar Photovoltaic System