

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 (SPV) 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 SPV system includes SPV panels, inverter(s), energy meters, distribution board(s), cables and other components as necessary to form a complete grid connected SPV installation. The two key components are SPV panels and inverter(s). SPV panels convert sunlight into electricity. The inverter(s) convert the output direct current (DC) of the solar panels into alternating current (AC). A typical SPV system is shown in **Figure 1**.

Statutory Planning Provision for Solar Photovoltaic System

3. In general, SPV 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 SPV 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 building². No planning permission for the system is required.
5. Installation of SPV system as a stand-alone facility on vacant land for the FiT Scheme would be regarded as 'Public Utility Installation' ('PUI'), which 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. Planning application is required for stand-alone SPV system for FiT Scheme in areas where 'PUI' is a Column 2 use under the statutory plan concerned. Any such planning permission granted would be for 'Public Utility Installation (Solar Photovoltaic System for the FiT Scheme)'. Only temporary approval would be

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

² Installation of SPV system for generating electricity for a permitted use, such as that for a farm, green house/farm structures in the "Agriculture" zone mainly for generating electricity for agricultural purposes, or that installed in connection with NTEH in "Village Type Development" zone, are also regarded as an ancillary use.

considered where there may be potential impact generated by the proposed SPV system which needs to be closely monitored or that the long-term planning intention of the zone may be frustrated by the proposed use.

Assessment Criteria for Planning Applications

6. The following criteria should be taken into account in assessing planning applications for SPV 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 SPV system;
 - b) unless with strong justifications, the SPV 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 SPV 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 SPV system will not have significant adverse impacts, including but not limited to those relating to the environment, drainage, sewerage, traffic, geotechnical safety, landscape and visual³ and, where needed, appropriate measures are to be adopted to mitigate the impacts;
 - e) unless with strong justifications⁴, 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 SPV 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

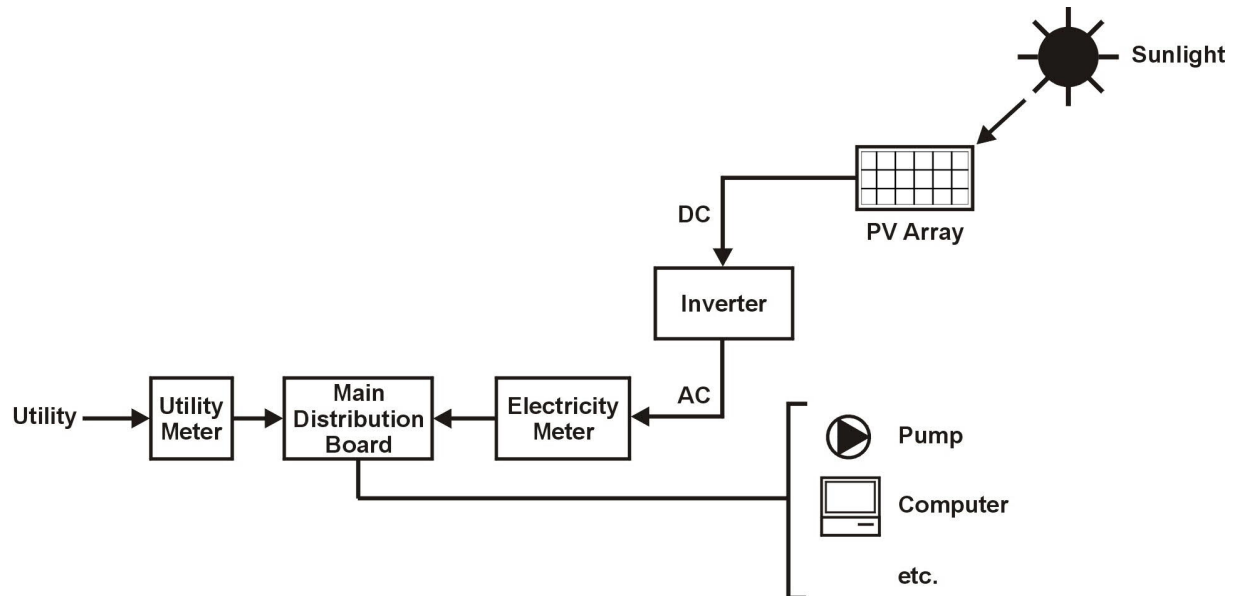
³ The applicant has to demonstrate that the proposal would not affect the visual and landscape amenities/character of the area adversely by, for instance, causing a significant change of landscape resources/character, dwarfing the surrounding developments or catching the public's visual attention due to the scale and prominence of the proposed installation. Where appropriate, measures should be taken to mitigate the visual/landscape impact, for example, by peripheral screen planting.

⁴ Ground-mounted SPV system is usually on steel frame or concrete plinth. It should normally not involve extensive site formation, excavation or filling of land.

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 SPV system should not cause glare to pilots/drivers and/or unacceptable adverse impact on aviation and/or traffic safety;
- i) the planning intention of “Agriculture” (“AGR”) zone is to retain and safeguard good quality agricultural farm land/fish ponds for agricultural purposes. SPV system ancillary to agricultural use would not require planning permission (as explained in Footnote 2 under Paragraph 4). Planning application for stand-alone SPV system as ‘PUI’ use in the “AGR” zone is generally not supported except those on land with no active farming activities and low agricultural rehabilitation potential. For application on fish ponds in the “AGR” zone, the applicant has to demonstrate that the SPV system will not hinder the use of the site for fisheries purposes;
- 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 SPV 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 SPV 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

Applications for Solar Photovoltaic System considered by the Board

Application No.	Zoning	Location	Site Area (m ²) (about)	No. of Solar Panels	Date of Consideration
Approved Applications					
A/NE-TK/649	AGR	Lot 646 s.A in D.D. 23, Po Sam Pai Village, Shuen Wan, Tai Po	242	71	1.11.2019 (approved on a temporary basis for 5 years)
A/TKO/121	O(2)	South East New Territories Landfill, Area 101, Tseung Kwan O	13,650	Not more than 4,000	23.10.2020
A/NE-LK/132 (applied for temporary use for 5 years)	REC	Lot 2048 s.B (Part) in D.D. 39, Yim Tso Ha Village, Sha Tau Kok	230	80	6.11.2020 (approved on a temporary basis for 5 years)
A/YL-KTN/785	AGR	Lots 1758, 1759, 1760, 1761, 1763RP (Part), 1766RP (Part) and 1767RP (Part) in D.D. 107, Kam Tin North	7,043	Not more than 1,650	18.3.2022
Rejected Applications					
A/YL-ST/570	GB	Lot 353 in D.D. 99, San Tin	1,150	540	4.9.2020
A/YL-NTM/405	GB	Lots 2161 and 2163 (Part) in D.D. 102, Ngau Tam Mei	1,490	338	19.3.2021 (on review)
A/TM-SKW/105	GB	Lot 37 in D.D. 383, So Kwun Wat Village, Tuen Mun	1,650	616	23.4.2021 (on review)
A/YL-NTM/399	GB	Lots 978 (Part), 979 (Part), 1043 and 1047 in D.D. 102, Ngau Tam Mei	2,264	774	16.7.2021 (on review)
A/YL-SK/302	AGR	Lot 363 s.A in D.D. 112, Shek Kong	782	176	5.11.2021 (on review)

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2. A SPV system includes SPV panels, inverter(s), energy meters, distribution board(s), cables and other components as necessary to form a complete grid connected SPV installation. The two key components are SPV panels and inverter(s). SPV panels convert sunlight into electricity. The inverter(s) convert the output direct current (DC) of the solar panels into alternating current (AC). A typical SPV system is shown in **Figure 1**.

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3. In general, SPV systems are commonly found on (i) rooftop of ~~New Territories Exempted House (NTEH)~~; (ii) rooftop of private buildings (**including New Territories Exempted House (NTEH)**); and ~~(iii)~~**(ii)** vacant land.
4. If installation of SPV 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 buildings~~, it is regarded as an ancillary use for supplementing power supply to the use/development, household or building². No planning permission for the system is required.
5. Installation of SPV system as a stand-alone facility on vacant land for the FiT Scheme would be regarded as 'Public Utility Installation' ('PUI'), which 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. Planning application is required for stand-alone SPV system for FiT Scheme in areas where 'PUI' is a Column 2 use under the statutory plan concerned. Any such planning permission granted would be for 'Public Utility Installation

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(Solar Photovoltaic System for the FiT Scheme)'. Only temporary approval would be considered where there may be potential impact generated by the proposed SPV system which needs to be closely monitored or that the long term planning intention of the zone may be frustrated by the proposed use.

Assessment Criteria for Planning Applications

6. The following criteria should be taken into account in assessing planning applications for SPV 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'/'**Network Reinforcement Condition Letter**' (or **similar confirmation letter**) from HKE and CLP respectively and submit a copy of the document together with the application to demonstrate the **preliminary** technical feasibility of the scheme in terms of serviceability, electrical safety and output generated by the SPV system;
 - b) unless with strong justifications, the SPV 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 SPV 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 SPV system will not have significant adverse impacts, including but not limited to those relating to the environment, drainage, sewerage, traffic, geotechnical safety, landscape and visual³ and, where needed, appropriate measures are to be adopted to mitigate the impacts;
 - e) unless with strong justifications⁴, 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;

³ The applicant has to demonstrate that the proposal would not affect the visual and landscape amenities/character of the area adversely by, for instance, causing a significant change of landscape resources/character, dwarfing the surrounding developments or catching the public's visual attention due to the scale and prominence of the proposed installation. Where appropriate, measures should be taken to mitigate the visual/landscape impact, for example, by peripheral screen planting.

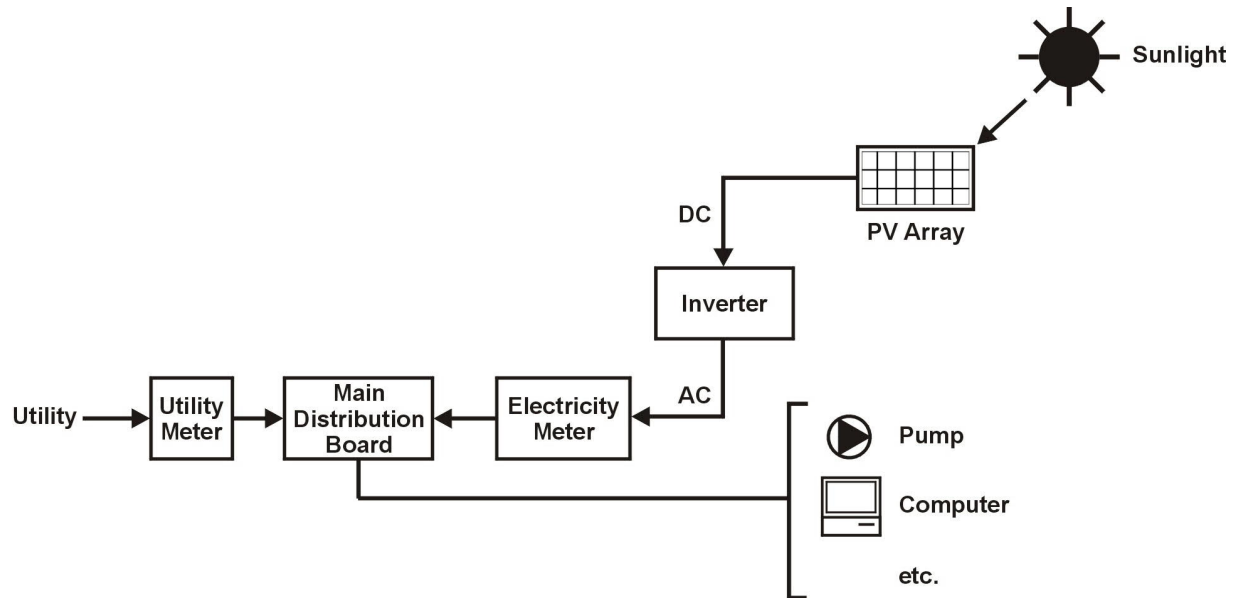
⁴ Ground-mounted SPV system is usually on steel frame or concrete plinth. It should normally not involve extensive site formation, excavation or filling of land.

- g) for SPV 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. ***The SPV system should not cause material increase in pollution effect and affect yield collection within water gathering grounds;***
- h) where the installation is proposed to be in area close to airports and/or heliports⁵, or major roads, it has to be demonstrated to the satisfaction of the relevant government departments that the SPV system should not cause glare to pilots/drivers and/or unacceptable adverse impact on aviation and/or traffic safety;
- i) the planning intention of “Agriculture” (“AGR”) zone is to retain and safeguard good quality agricultural farm land/fish ponds for agricultural purposes. SPV system ancillary to agricultural use would not require planning permission (as explained in Footnote 2 under Paragraph 4). Planning application for stand-alone SPV system as ‘PUI’ use in the “AGR” zone is generally not supported except those on land with no active farming activities and low agricultural rehabilitation potential. For application on fish ponds in the “AGR” zone, the applicant has to demonstrate that the SPV system will not hinder the use of the site for fisheries purposes;
- j) ~~as there is a general presumption against development in the “Green Belt” (“GB”) zone. ***However***, planning application ***permission for SPV system*** 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 ***may be granted if*** the SPV system would not adversely affect the landscape character/resources of the “GB” zone and jeopardise the integrity of the zone as a buffer. ***For instance, applications with sites that are located at the periphery of “GB” zone, have been devegetated, deserted or formed, or with proposals not requiring extensive vegetation clearance, tree felling or slope cutting may be given sympathetic consideration;***~~
- 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 SPV 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.

(Revised on xx September 2022)

⁵ For installation of SPV system in area close to airports and/or heliports, the reflection rate of the SPV system with anti-reflection coating shall not exceed 5%.

Figure 1



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