

# Ensuring Structural and Electrical Safety of Solar Photovoltaic (PV) System

Due to the incidents involving solar panels being blown away by Super Typhoon Saola, Buildings Department (BD) and Electrical and Mechanical Services Department (EMSD) kindly remind all owners of Solar PV system the importance of ensuring that the structural and electrical safety of PV system installations and statutory requirements required by BD and EMSD should be fully complied with.

## Structural Safety



Building owners have the responsibility to ensure that the supporting structures for PV systems are erected lawfully and maintained in a secure and safe condition at all times. In this connection, owners are advised to:



**a** In case of erecting a supporting structure for a PV system, comply with the requirements under the Buildings Ordinance (Cap. 123), or, if the building is a village house exempted under the Buildings Ordinance (Application to the New Territories) Ordinance (Cap. 121) comply with the requirements for the erection of green and amenity facilities as stipulated by the Lands Department;



**b** Conduct regular inspections on the supporting structures for the PV system and if required, carry out timely repair and maintenance; and



**c** Before and after severe weather, such as a typhoon, appoint a prescribed building professional or prescribed registered contractor to conduct inspection on the supporting structures for the PV system, including the connection between the PV panels and the structures.

Under section 40 (2B) of the Buildings Ordinance, any person who carries out building works in such a manner that it causes or is likely to cause a risk of injury to any person or damage to any property shall be guilty of an offence and shall be liable on conviction to a maximum fine of \$1,000,000 and imprisonment for three years.

For Do's & Don'ts for installation of PV systems, please visit BD website at [www.bd.gov.hk](http://www.bd.gov.hk).



## Electrical Safety



Under Section 22 of the Electricity Ordinance (Cap. 406)\*, the owner of a registered generating facility shall maintain the generating facility in continuous safe working order, and display at the facility a notice showing the name and registration number of the registered electrical contractor employed for maintaining the facility in continuous safe working order. Therefore, the suggestions listed below would be helpful to ensure electrical safety.



**a** Conduct regular visual inspections on solar Photovoltaic (PV) systems (e.g. solar PV panels, associated electrical installations, etc.).



**b** Arrange with the Registered Electrical Contractor (REC) responsible for maintaining the generating facility to conduct inspection and relevant maintenance work (e.g. cable connection between PV panels, bonding conductors, associated electrical installations, etc.) where necessary after the severe weather conditions such as a super typhoon etc.



**c** Keep the maintenance records to formulate a preventive maintenance schedule.

Any person who contravenes Section 22 of Cap. 406 commits an offence and is liable to a maximum fine of \$10,000. For details, please visit the EMSD website at [www.emsd.gov.hk](http://www.emsd.gov.hk).

\*Note: Apart from the owners of registered generating facilities, the owners of the following generating facilities, for which registration is not required, shall also comply with the requirements under section 22 of the Electricity Ordinance:

- (a) A generating facility which is used in construction work as defined and regulated under the Factories and Industrial Undertakings Ordinance (Cap. 59);
- (b) A generating facility which forms part of an electrical installation that requires a periodic test certificate to be submitted to Electrical and Mechanical Services Department under the Electricity Ordinance; or
- (c) A generating facility which only supplies electricity to an electrical installation that is owned by the owner of the generating facility

Reference: Handbook on Design, Operation and Maintenance of Solar Photovoltaic Systems  
[https://re.emsd.gov.hk/files/1\\_Handbook\\_on\\_Design\\_O&M\\_of\\_Solar\\_PV.pdf](https://re.emsd.gov.hk/files/1_Handbook_on_Design_O&M_of_Solar_PV.pdf)

機電工程署  
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# 確保太陽能發電系統的結構及電力安全

## Ensuring Structural and Electrical Safety of Solar Photovoltaic (PV) System



中華人民共和國香港特別行政區政府  
環境及生態局  
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# 確保太陽能發電系統的結構及電力安全

鑑於超強颱風「蘇拉」襲港期間，有數宗太陽能板被吹至地面的個案，屋宇署及機電工程署提醒全港太陽能發電系統擁有人必須確保太陽能發電系統的結構及電力安全，並已符合屋宇署及機電工程署的規例。

## 結構安全



建築物擁有人有責任確保用以支承太陽能發電系統的構築物是合法地豎設，並在任何時候均為穩固及安全。就此，擁有人應：



**a** 如要豎設用以支承太陽能系統的構築物，須符合《建築物條例》（第123章）的規定；如樓宇是按《建築物條例（新界適用）條例》（第121章）獲得豁免的新界豁免管制屋宇，則須符合地政總署所訂有關小型環保及適意設施的要求；



**b** 為支承太陽能系統的構築物，進行定期檢查，並適時進行所需的維修和保養；及



**c** 在颱風等惡劣天氣前後，委任訂明建築專業人士或訂明註冊承建商檢查支承太陽能系統的構築物，包括太陽能板與構築物的接駁處。

根據《建築物條例》第40(2B)條，任何人進行建築工程的方式導致或相當可能導致任何人受傷或任何財產損毀的危險，即屬違法，一經定罪，最高可處罰款1,000,000元及監禁三年。

就安裝太陽能系統應做和不應做的事，請瀏覽屋宇署網頁 [www.bd.gov.hk](http://www.bd.gov.hk)。

香港特別行政區政府新聞處設計



## 電力安全



根據《電力條例》（第406章）第22條\*，註冊發電設施的擁有人必須使其發電設施經常保持運作安全，以及在該發電設施所在處展示告示，列明為使該設施經常保持運作安全而僱用的註冊電業承辦商的名稱及註冊號碼。因此，下列建議有助於確保發電設施的電力安全。

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**a** 定期以目視形式檢查太陽能發電系統，例如太陽能板及相關電力裝置等；



**b** 安排負責維修發電設施的註冊電業承辦商於超強颱風等惡劣天氣之後按需要進行檢查及相關維修，例如檢查和維修太陽能板之間的電纜連接、接駁導體及相關電力裝置等；及



**c** 保存維修記錄，以制訂預防性維修時間表。

若任何人違反《電力條例》（第406章）第22條的規定，即屬違法，一經定罪，最高可處罰款10,000元。詳情請瀏覽機電工程署網頁 [www.emsd.gov.hk](http://www.emsd.gov.hk)

註\*：除註冊發電設施的擁有人外，下列無須註冊的發電設施的擁有人亦須根據《電力條例》（第406章）第22條遵行規定：

- (a) 在《工廠及工業經營條例》（第59章）所界定及管制的建築工程中使用的發電設施；
- (b) 屬於《電力條例》規定須向機電工程署提交定期測試證明書的電力裝置的一部分的發電設施；或
- (c) 只供應電力予擁有人所擁有的電力裝置的發電設施。

參考資料：太陽能發電系統設計、操作及維修手冊  
[https://re.emsd.gov.hk/files/Handbook\\_on\\_Design\\_O&M\\_of\\_Solar\\_PV\\_TC.pdf](https://re.emsd.gov.hk/files/Handbook_on_Design_O&M_of_Solar_PV_TC.pdf)



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