

70th
周年紀念
ANNIVERSARY



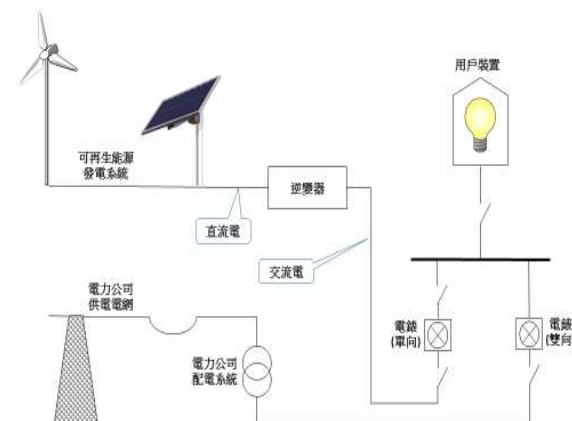
Renewable Energy Power
Systems-
Regulatory Requirements
under Electricity Ordinance
Cap 406



Installation of Renewable Energy Power Systems – Regulatory Requirements under Electricity Ordinance Cap 406

Installation of Renewable Energy Power Systems – Regulatory Requirements under Electricity Ordinance Cap 406

1. Installation of solar PV System involved low/high voltage electrical installation is electrical work
2. In accordance with the Electricity Ordinance (EO, Cap. 406), the electrical work shall be carried out by a REC
3. The REW employed by the REC should follow the technical guidelines of the CoP to carry out the related electrical work
4. The solar PV system shall comply with the relevant technical requirements of the EO and the CoP

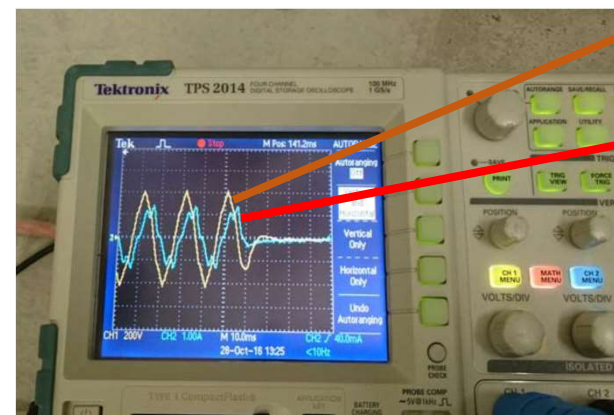


Installation of REPS Technical Requirements on Grid Connection

REPS Major Safety Requirements:

1. Anti-islanding

- Automatically disconnect any grid-connected REPS from the Distribution System in the event that the Grid is de-energised for whatever reasons
- Ensure that REPS would not continue to supply power to the Distribution System
- Allow electrical workers to work safely on the Grid or the Distribution System during the power interruption
- Cater for circuit breaker reclosing operation in the Grid



供電商供電

逆變器
輸出電源

Installation of REPS Technical Requirements on Grid Connection

2. 'Dual power supply sources' Warning Label

- Display warning labels at all electrical equipment with dual power supply so as to alert the maintenance personnel.



3. Lockable switch

- Install a lockable switch at a readily accessible position to allow authorised electrical workers to manually isolate the REPS from the Grid whenever necessary.



Installation of REPS Technical Requirements on Grid Connection

4. 4-pole Circuit breaker or Isolator

- Use 4-pole type circuit breakers or isolators on all isolation points of the REPSs to allow complete isolation from the Distribution System
- 4-pole Circuit Breaker and isolator should be installed in every REPS's isolation point
- Ensure that the Distribution System would remain intact and not be affected by the REPSs

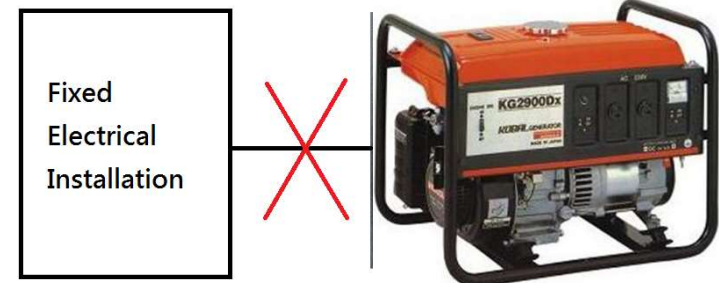


Registration of Generating Facilities

Registration of Generating Facilities

According to Section 21 of the Electricity Ordinance (Cap. 406) · The owner of a generating facility that is in use or on standby use shall register it with the Director unless it

1. forms part of an electrical installation that requires a periodic test certificate to be submitted to the Director under this Ordinance ;
2. only supplies electricity to an electrical installation the owner of the generating facility ;
3. is used on an aircraft ;
4. is used on a watercraft ;
5. is used on a hovercraft ;
6. is on a land vehicle where the facility is not connected to a fixed installation outside the vehicle ;
7. is used in construction work as defined and regulated by the Factories and Industrial Undertakings Ordinance



Power Company

A person who commits an offence under this section is liable to a fine of \$10,000

Registration of Generating Facilities

Example :

Village House or Flat

- ◆ Installed Grid-connected Renewable Energy Generating Facilities
- ◆ Electrical Installations of approved loading <100A
 - Not included in the Periodic Test Certificate (Form WR2)

The owner of a generating facility that is on standby use shall register it with the



Registration of Generating Facilities

How to apply :

ELECTRICITY (REGISTRATION) REGULATIONS (Cap. 406D, Section 14)

An owner who applies to register a generating facility shall submit to the Director :

1. an application in a form required by the Director (Form GF1)
2. documents that the Director considers are relevant to the applicant's registration
3. the application fee specified in the Schedule of HKD\$640

✕No application renewal is required after the initial registration✕

Registration of Generating Facilities

For submissions in person or by mail:

1. Obtain appropriate application form(s) (i.e. Form GF1) from:
 - a) Registration and Permit Office, EMSD, G/F, 3 Kai Shing Street, Kowloon, Hong Kong
 - b) Telephone hotline: 1823 (for a fax copy)
 - c) Government Forms web site : <http://www.info.gov.hk/forms>
 - d) EMSD website : www.emsd.gov.hk (select "Public Forms")
2. Complete the application form(s) according to the given instructions
3. Submit the completed application form(s) together with supporting documents and an application fee in person or by mail to Registration and Permit Office, EMSD

Registration of Generating Facilities

Form GF1

Form GF1 THE GOVERNMENT OF THE HONG KONG SPECIAL ADMINISTRATIVE REGION ELECTRICITY ORDINANCE (CAP. 406) ELECTRICITY (REGISTRATION) REGULATIONS 新申請為註冊發電設施 New Application for Registration as Generating Facilities		此欄不用填寫 Official use only
表格 GF1 香港特別行政區政府 電力條例(第 406 章) 電力(註冊)規例 新申請為註冊發電設施	收件日期 Receipt Date:	收據編號 Receipt Number:
<p>注意 Note:</p> <p>請參閱附頁的「本表格備註」，並以正確填寫各項資料。</p> <p>Please read the "Notes to this Form" attached and complete all the items in block letters.</p> <p>致機電工程署署長:</p> <p>To the Director of Electrical & Mechanical Services:</p> <p>甲部：一般資料</p> <p>Section A: General Information</p> <p>(1) 發電設施所在地址: Address of the generating facility:</p> <p>(2) 發電設施擁有人的姓名或公司名稱: Name or organization of the owner of the generating facility:</p> <p>(3) 發電設施擁有人的香港身份證號碼或公司商業登記號碼: HKID Number or Business Registration Certificate Number of the owner of the generating facility:</p> <p>(4) 發電設施擁有人的郵寄地址(如與發電設施所在地址不同): Postal Address of the owner of the generating facility (if different from address of the generating facility):</p> <p>(5) 聯絡手提電話: Contact mobile number:</p> <p>電郵地址: Email address:</p> <p>(6) 電力公司賬戶號碼/電錶編號: Power supply company account number/ meter number:</p> <p>(7) 負責使發電設施保持運作安全的註冊電業承辦商名稱及註冊號碼#: Name and registration number of the registered electrical contractor responsible for maintaining the generating facility in safe working order:</p> <p># 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及在該發電設施所在處展示告示，列明為使發電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。</p> <p># In accordance with section 22 of the Electricity Ordinance, the owner of registered generating facility shall maintain the facility in continuous safe working order, and display at the facility a notice showing the name and registered number of the registered electrical contractor employed for maintaining the facility in continuous safe working order.</p>		

EMSD/EL/GF1 (Rev. 4/2018)

乙部：技術資料 (如有需要，可向相關負責安裝或維修發電設施的註冊電業承辦商查詢)

Section B: Technical Information (If needed, please seek advice from the registered electrical contractor responsible for installing or maintaining the generating facility)

(1) 發電設施類型 (例如：光伏技術、風能、柴油發動機或混合式等(請說明)):
Type of generating facility (e.g. photovoltaic, wind, diesel engine or hybrid, etc. (please specify)):

(2) 總額定功率:
Aggregated power rating:

輸出電壓 [伏特] 及 電流 [安培]: (單相/三相)
Electricity Output voltage[V] and current [A]: (Single-phase / Three-phase)

(3) 預計每年產生的電量(千瓦小時):
Expected annual generation (kWh):

(4) 發電設施的最大開關器件為: _____ 安培
Largest switching device of the generating facility: _____ amperes

EMSD/EL/GF1 (Rev. 4/2018)

丙部：隨申請書附上作為證明的文件影印本(*請在適當位置加上✓號)

Section C: Photocopies of Documents submitted in support of this application (*Please tick as appropriate)

(a) 發電設施擁有人香港身份證或商業登記證書
HKID or Business Registration Certificate of the owner of the generating facility ☐

(b) 該發電設施根據《電力(線路)規例》的完工證明書(表格 WR1)。有關(WR1)必須顯示與電網接駁及相關電錶/供電位置詳細的配電系統單線電氣圖。
Work completion certificate (Form WR1) under Electricity (Wiring) Regulations for the generating facility. The WR1 shall complete with single-line electrical diagrams of the distribution system showing details of the grid connection and the associated metering points/supply points ☐

(c) 負責使該發電設施保持運作安全的註冊電業承辦商的註冊證書
Certificate of the registered electrical contractor responsible for maintaining the generating facility in safe working order ☐

丁部：聲明

Section D: Declaration

本人聲明在此申請表格填報的一切資料、陳述及附上的文件全屬真確無訛。警告：如就此項申請作出虛假陳述或失實資料，即屬違法。本人亦已閱讀及同意於本表格內之「個人資料私隱聲明」。

I declare that all particulars, statements and documents submitted herein and with this application are true and correct. Warning: It is an offence in law to furnish any false statement or information related to this application. I also confirm that I have read and agreed with the "Personal Data Privacy Statement" in this Form.

申請人簽署:
Signature of Applicant: _____

申請人姓名:
Name of Applicant: _____

香港身份證號碼:
HKID No.: _____

公司職位(如適用):
Position in the Company (if applicable): _____

日期:
Date: _____

公司印章(如適用):
Company Seal (if applicable): _____

EMSD/EL/GF1 (Rev. 4/2018)



Registration of Generating Facilities

表格 GF1 香港特別行政區政府 電力條例(第 406 章) 電力(註冊) 規例 新申請為註冊發電設施	Form GF1 THE GOVERNMENT OF THE HONG KONG SPECIAL ADMINISTRATIVE REGION ELECTRICITY ORDINANCE (CAP. 406) ELECTRICITY (REGISTRATION) REGULATIONS New Application for Registration as Generating Facilities	此欄不用填寫 Official use only 收件人: _____ 收據號碼: _____
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注意 Note :

請參閱於附頁的「本表格備註」，並以正楷填寫各項資料。

Please read the "Notes to this Form" attached and complete all the items in block letters.

致機電工程署署長:

To the Director of Electrical & Mechanical Services:

甲部：一般資料

Section A : General Information

(1) 發電設施註冊表格



Registration of Generating Facilities

甲部： 一般資料

Section A : General Information

(1) 發電設施所在地址:

Address of the generating facility:

ABC Tower, EM Road 1, KLN, HK

(2) 發電設施擁有人的姓名或公司名稱:

Name or organization of the owner of the generating facility:

Electrical Engineering Company

(3) 發電設施擁有人香港身份證號碼或公司商業登記號碼:

HKID Number or Business Registration Certificate Number of the owner of the generating facility:

12345678-000-01-00-1

(4) 發電設施擁有人的郵寄地址(如與發電設施所在地址不同):

Postal Address of the owner of the generating facility (if different from address of the generating facility):

(5) 聯絡手提電話:

Contact mobile number:

1823 1823

電郵地址:

Email address:

info@emworks.com

(6) 電力公司帳戶號碼/電錶編號:

Power supply company account number/ meter number:

1234567

(7) 負責使發電設施保持運作安全的註冊電業承辦商名稱及註冊號碼#:

Name and registration number of the registered electrical contractor responsible for maintaining the generating facility in safe working order:

Electrical Maintenance Company , 123456

Registration of Generating Facilities

乙部：技術資料 (如有需要，可向相關負責安裝或維修發電設施的註冊電業承辦商查詢)
Section B : **Technical Information** (If needed, please seek advice from the registered electrical contractor responsible for installing or maintaining the generating facility)

- (1) 發電設施類型 (例如：光伏技術、風能、柴油發動機或混合式等(請說明)):
Type of generating facility (e.g. photovoltaic, wind, diesel engine or hybrid, etc. (please specify)):

Photovoltaic

- (2) 總額定功率：
Aggregated power rating:
- 輸出電壓 [伏特] 及 電流 [安培]：(單相／三相)
Electricity Output voltage[V] and current [A] :
(Single-phase / Three-phase)

7200W

Three-phase 380V

- (3) 預計每年產生的電量(千瓦小時)：
Expected annual generation (kWh)

8300kWh

- (4) 發電設施的最大開關器件為： **32** 安培
Largest switching device of the generating facility: _____ amperes

Registration of Generating Facilities

丙 部：
Section C : 隨申請書附上作為證明的文件影印本(*請在適當位置加上✓號)
Photocopies of Documents submitted in support of this application (*Please tick as appropriate)

- (a) 發電設施擁有人香港身份證或商業登記證書

HKID or Business Registration Certificate of the owner of the generating facility



- (b) 該發電設施根據《電力(線路)規例》的完工證明書(表格 WR1) 。 有關(WR1)必須顯示與電網接駁及相關電錶／供電位置詳情的配電系統單線電氣圖。

Work completion certificate (Form WR1) under Electricity (Wiring) Regulations for the generating facility. The WR1 shall complete with single-line electrical diagrams of the distribution system showing details of the grid connection and the associated metering points/supply points



- (c) 負責使該發電設施保持運作安全的註冊電業承辦商的註冊證書

Certificate of the registered electrical contractor responsible for maintaining the generating facility in safe working order



Registration of Generating Facilities

丁部： 聲明
Section D : Declaration

本人聲明在此申請表格填報的一切資料、陳述及附上的文件全屬真確無訛。**警告：如就此項申請作出虛假陳述或失實資料，即屬違法。**本人亦已閱讀及同意於本表格內之「個人資料私隱聲明」。

I declare that all particulars, statements and documents submitted herein and with this application are true and correct. **Warning: It is an offence in law to furnish any false statement or information related to this application.** I also confirm that I have read and agreed with the "Personal Data Privacy Statement" in this Form.

申請人簽署: EM CHAN
Signature of Applicant: _____

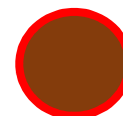
申請人姓名: 陳機電
Name of Applicant: _____

香港身份證號碼: A123456(7)
HKID No.: _____

公司職位(如適用): _____
Position in the Company
(if applicable): Manager

日期: 01 Aug 2018
Date: _____

公司印章(如適用): _____
Company Seal (if
applicable): _____



Registration of Generating Facilities

Certificate of Registration : Electrical Ordinance

Section 21(3)

An owner of a registered generating facility shall display at the facility a copy of the certificate of registration

✘ Any owner using generating facilities without registration ✘

✘ commits an offence under this section

✘ is liable to a fine of \$10,000

機電工程署
EMSD

發電設施註冊證明書
CERTIFICATE OF REGISTRATION OF
GENERATING FACILITY
《電力(註冊)規例》
ELECTRICITY (REGISTRATION) REGULATIONS

註冊號碼
Registration Number G000001

地址
Address 香港九龍機電路1號
電力工程大廈

發出日期
Date of Issue 01 / 10 / 2018
日 Day 月 Month 年 Year

注意事項 Points to Note

1. 本證明書必須展示於發電設施所在處。
A copy of this certificate shall be displayed at the generating facility.
2. 列明負責保養該發電設施的註冊電業承辦商的名稱及註冊號碼的告示，必須展示於該發電設施所在處。
A notice showing the name and registration number of the registered electrical contractor responsible for maintaining the generating facility shall be displayed thereat.
3. 該發電設施的擁有人必須在有關設施的資料變更後四星期內通知機電工程署。
The Electrical and Mechanical Services Department shall be notified within four weeks after any change of particulars of the generating facility.

Registration of Generating Facilities

Remarks

1) Obtain certificate


- Submit (R)
- Payment
- Obtain

2) Change

- Submit (R)
- Notification

3) Approval

- Approval



The image shows the front cover of a 'Certificate of Registration of Generating Facility' issued by the Electrical and Mechanical Services Department (EMSD). The cover features a green and white design with a background image of solar panels and a city skyline. The EMSD logo is in the top right corner. The title is in both Chinese and English. Below the title, it specifies 'ELECTRICITY (REGISTRATION) REGULATIONS'. The registration number is G000001, and the address is 1 Hong Kong Electric Road, Electrical Engineering Building. The issue date is 01/10/2018. At the bottom, there are three points to note in both Chinese and English.

機電工程署
EMSD

發電設施註冊證明書
CERTIFICATE OF REGISTRATION OF
GENERATING FACILITY
《電力(註冊)規例》
ELECTRICITY (REGISTRATION) REGULATIONS

註冊號碼
Registration Number G000001

地址
Address 香港九龍機電路1號
電力工程大廈

發出日期
Date of Issue 01 / 10 / 2018
日Day 月Month 年Year

注意事項 Points to Note

1. 本證明書必須展示於發電設施所在處。
A copy of this certificate shall be displayed at the generating facility.
2. 列明負責保養該發電設施的註冊電業承辦商的名稱及註冊號碼的告示，必須展示於該發電設施所在處。
A notice showing the name and registration number of the registered electrical contractor responsible for maintaining the generating facility shall be displayed thereat.
3. 該發電設施的擁有人必須在有關設施的資料變更後四星期內通知機電工程署。
The Electrical and Mechanical Services Department shall be notified within four weeks after any change of particulars of the generating facility.

Registration of Generating Facilities

Application Steps :



The image shows a screenshot of the EMSD (Electrical and Mechanical Services Department) website. Overlaid on the website are five colored boxes representing the application steps: 1. Enter EMSD Homepage (orange), 2. Menu (grey), 3. Electricity Safety (yellow), 4. How to apply (blue), and 5. Registering as a Registered Generating Facility (green). A QR code is visible on the left side of the website screenshot, and a list of exceptions is shown at the bottom.

機電工程署 EMSD 香港特別行政區政府 機電工程署

GovHK 香港政府一站通 ENGLISH 简体版

主頁 最新消息 媒體 關於我 電力 鐵路 能源 氣體 升降機 其他規管服務 支援 我們的 顧問 一般 遞交電 公開 公用表格 相關網址

Enter EMSD Homepage www.emsd.gov.hk

Menu

Electricity Safety

How to apply

Registering as a Registered Generating Facility

則屬例外：

- (a) 屬於本條例規定須向署長提交定期測試證明書的電力裝置的一部分；
- (b) 只供應電力予擁有人所擁有的電力裝置；
- (c) 在航空器上使用；
- (d) 在船艇上使用；
- (e) 在氣墊船上使用；
- (f) 裝於陸上交通工具，而又沒有與該交通工具以外的線路裝置接駁一起；或
- (g) 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。

發電設施符合以下情況

Maintenance of Generating Facilities

Maintenance of Generating Facilities

Maintenance Requirement :

Electricity Ordinance (Section 22)

- a) An owner of a registered generating facility shall maintain the generating facility in continuous safe working order;
- b) display at the facility a notice showing the name and registration number of the registered electrical contractor employed for the purpose of paragraph (a) .

Generating Facility Maintenance Notice

**Registered Electrical Contractors :
Electrical Maintenance Ltd.**

Registration No. : 123456

Maintenance of Generating Facilities

Maintenance Requirement :

Except the owners of Registered Generating Facilities , the following Generating Facilities exempted from Registration has to abide to Electricity Ordinance, Section 22 :

- a) It is used in construction work as defined and regulated under the Factories and Industrial Undertakings Ordinance (Cap. 59);
- b) It forms part of an electrical installation that requires a permit to test certificate to be submitted to the Director under this Ordinance
- c) It only supplies electricity to an electrical installation that is owned by the owner of the generating facility

A person who commits an offence under this section is liable to a fine of \$10,000

Q&A

Thank you!!