



# Supply Rules

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香港電燈有限公司  
*The Hongkong Electric Co., Ltd.*



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# **SUPPLY RULES**

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The Hongkong Electric Co., Ltd. has revised Rule 202, 209 and 223 in its Supply Rules. The new Rules, which come into effect on 1<sup>st</sup> December 2008, are as follows:

**202 SUPPLY VOLTAGE & FREQUENCY**

1. Electricity will be supplied using the Alternating Current (A.C.) system at a frequency of 50 Hertz. The following voltages are available at the discretion of the Company:
  - (a) Single phase: 220 volts
  - (b) Three phase:
    - i. 220/380 volts (3 phase 4 wire)
    - ii. 11,000 volts
    - iii. 22,000 volts
    - iv. 132,000 volts
2. The declared limits of the supply under normal conditions at the Company's supply points mentioned in Rule 212 are:
  - (a) Voltage:
    - 220 volts and 220/380 volts supply
      - plus or minus 6%
    - 11,000 volts, 22,000 volts and 132,000 volts supply
      - plus 10% or minus 2.5%
  - (b) Frequency: 50 Hertz - plus or minus 2%
3. It is the responsibility of the customer to ensure that equipment to be connected to the Company's supply is suitable for the voltage and frequency supplied.

**209 HIGH VOLTAGE SUPPLY**

1. The Company reserves the right to provide supply at high voltage where it is deemed necessary to meet the Company's requirements.
2. A customer requiring a high voltage supply to meet his requirements should apply in writing to the Company. Early application should be made as work to provide a high voltage supply normally requires longer completion time.
3. The Company reserves the right to determine the supply voltage for an application.

**223 CUSTOMER'S INTERFERENCE WITH QUALITY OF SUPPLY**

The Company may disconnect the supply to any installation, which by reason of unsteady or fluctuating demand or by injection of undesirable waveforms on the Company's system, adversely affects the Company's system and/or the electricity supply to other customers.

The requirements on harmonic voltage and harmonic current distortions are set out below:

Type of Interference	Requirement	
Harmonic Voltage Distortion	The total harmonic distortion shall not exceed 5% for installation supplied at 11kV/22kV.	
Harmonic Current Distortion	The total odd harmonic distortion shall not exceed the following limits for installation supplied at 380/220V.	
	$I < 40A$	20%
	$40A \leq I < 400A$	15%
	$400A \leq I < 800A$	12%
	$800A \leq I < 2000A$	8%
	$I \geq 2000A$	5%
	Where I is the approved loading of the installation.	
	The total even harmonic distortion shall not exceed 25% of the total odd harmonic distortion.	

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## **SECTION 100 GENERAL**

### **101 SCOPE**

The Supply Rules cover the general and technical terms and conditions upon which the Company will supply electricity. The Company may prescribe from time to time other terms and conditions governing the supply of electricity in general or to specific categories of customers (hereinafter referred to as "other terms and conditions").

### **102 PREVIOUSLY PUBLISHED SUPPLY RULES**

The Supply Rules supersede all previously published Supply Rules of the Company.

### **103 COMPLIANCE WITH THE SUPPLY RULES**

1. By virtue of his application for electricity supply or his obtaining electricity from the Company, a customer is bound by and shall abide by the Supply Rules and other terms and conditions.
2. The registered customer shall ensure that any person who uses electricity at the registered service premises shall comply with the Supply Rules and other terms and conditions.
3. No act or omission of the Company shall be treated as waiving any breach or non-observance by the customer of the Supply Rules and other terms and conditions, save where the same is specified in writing and signed by the Company.

### **104 COMPANY'S RIGHT TO REVISE THE SUPPLY RULES**

The Company may at any time revise the Supply Rules and other terms and conditions. Notice of any revision shall be conclusively given by publishing such details of the revision as the Company considers appropriate in both an English and a Chinese language Hong Kong daily circulation newspaper or by sending to customers a copy of the revised rules or an appropriate extract or precis of the same or by a notice in the electricity bills to customers advising them to obtain the revised rules from our Customer Centre or Pay-in Centre.

## **105 INTERPRETATION**

1. In the Supply Rules and other terms and conditions, unless inconsistent with the context, words denoting persons include corporations and firms, words denoting the masculine gender include the feminine gender and the neuter gender, and words denoting the singular number include the plural number and vice versa.
2. The headings and table of contents are intended for guidance only and do not form part of the Supply Rules nor shall any of the Supply Rules be construed or interpreted by reference thereto or in anyway affected or limited thereby.

## **106 DEFINITIONS**

The words and terms defined in Appendix of the Supply Rules shall have the meaning assigned thereto whenever they appear in the Supply Rules and other terms and conditions.

## **107 TARIFF AND CHARGES**

The Company may revise the tariff types, tariff rates, rebates, fuel clause adjustment and charges payable by the customer. The consent of the Government will be sought as required before such revisions. Notice on any revision of tariff types, tariff rates, rebates and fuel clause adjustment shall be conclusively given by publishing such details of the revision as the Company considers appropriate in both an English and a Chinese language Hong Kong daily circulation newspaper.

## **108 CORRESPONDENCE**

All correspondence to the Company other than complaints shall be addressed to the Company and not to any individual. Any complaints should be directed to the Managing Director of the Company without delay.

Correspondence to a customer shall be deemed properly sent to him if sent to the latest postal address, e-mail address, facsimile number given by him or to any of the locations at which supply is provided to him by the Company.

## **109 PREVENTION OF BRIBERY**

1. No payment of any kind of any service is required by the Company except against a bill or letter issued by the Company.
2. It is a rule of the Company that its employees do not solicit or accept any advantage, which includes any gift, loan, fee, tips, reward or commission for any of the services of the Company performed by Company employees to or for customers. Any person offering such an advantage to an employee of the Company is committing an offence under the Prevention of Bribery Ordinance.

## **110 ORDINANCE AND REGULATIONS GOVERNING ELECTRICITY SUPPLY**

Supply of electricity is governed by the Electricity Ordinance and its related Regulations. Customers are advised to read the Electricity Ordinance and its related Regulations to keep themselves fully aware of their rights and obligations under the law. Customers may seek assistance from the Company if they require more information.

## **111 CUSTOMER'S PERSONAL DATA**

The Company has a policy on personal data privacy, which complies with the Personal Data (Privacy) Ordinance, and a copy of the Company's Statement of Customer Data Policy can be obtained by calling 2887 3411 or by faxing to 2510 7667.



## SECTION 200 CONDITIONS OF SUPPLY

### 201 CUSTOMER

1. The customer appearing on the Company's record as the registered customer of an account shall be liable to the Company for all charges, fees or costs payable to the Company in respect of the account. Should a registered customer cease to use the supply under such account without making arrangement to terminate the account or transfer the account to the actual customer, the actual customer shall be liable for all charges, fees or costs payable to the Company in respect of that account and the registered customer shall remain jointly and severally liable with the actual customer for such charges, fees or costs until such time as he shall cease to be the registered customer of that account.
2. If a registered customer ceases to use the supply under the account registered in his name without making arrangement to terminate the account or transfer the account to the actual customer, the Company shall be at liberty to remove him as the registered customer without prior notice and invite the actual customer to register himself as the registered customer. Supply may be disconnected if an actual customer, being so invited by the Company, refuses to register himself as the registered customer.
3. The Company shall be at liberty to ignore any communication from or application or request by a party in relation to an account in respect of which he is not the registered customer. The Company will not become involved in any dispute between landlord and tenant.

### 202 SUPPLY VOLTAGE & FREQUENCY

1. Electricity will be supplied using the Alternating Current (A.C.) system at a frequency of 50 Hertz. The following voltages are available at the discretion of the Company:
  - (a) Single phase: 220 volts
  - (b) Three phase:
    - i. 220/380 volts (3 phase 4 wire)
    - ii. 11,000 volts
    - iii. 132,000 volts

2. The declared limits of the supply under normal conditions at the Company's supply points mentioned in Rule 212 are:
  - (a) Voltage: 220 volts and 220/380 volts supply  
- plus or minus 6%  
  
11,000 volts and 132,000 volts supply  
- plus 10% or minus 2.5%
  - (b) Frequency: 50 Hertz - plus or minus 2%
3. It is the responsibility of the customer to ensure that equipment to be connected to the Company's supply is suitable for the voltage and frequency supplied.

### **203 UN-INTERRUPTIBLE POWER SUPPLY (UPS) AND OTHER AUTOMATIC BACKUP SUPPLY SYSTEM (ABS) FOR IMPORTANT SERVICES**

IMPORTANT NOTICE: ELECTRICITY SUPPLIED BY THE COMPANY MAY BE LIABLE TO FLUCTUATION, VOLTAGE DIP AND INTERRUPTION DUE TO THIRD PARTY DAMAGE, EQUIPMENT FAILURE, UNSTEADY OR FLUCTUATING DEMANDS AND OTHER REASONS. WHERE CUSTOMERS RELY ON ELECTRICITY SUPPLY FOR IMPORTANT SERVICES ATTENTION IS DRAWN TO THE FOLLOWING RULE.

1. The customer is recommended to install an UPS System and/or other ABS System for important services to prevent and minimize any damage, loss or inconvenience caused directly or indirectly by any expected or unexpected voltage fluctuation, voltage dip, interruption or failure of supply howsoever arising.
2. As a guide if the customer has any of the following equipment he is strongly recommended to install an UPS and/or other ABS System in order to ensure that the equipment continues to operate properly when there is any voltage fluctuation, voltage dip, interruption or failure of the Company's supply:
  - medical equipment which is supporting or treating patients;
  - computer equipment, control equipment and any other equipment which requires continuous regulated supply;
  - equipment used for ensuring and maintaining safe access to, exit from and environment for any activities inside a tunnel or confined space;
  - equipment used in conditions of emergency such as rescue operations and combating with fire, flood, dangerous fumes/gas and other hazards;

- equipment used for security surveillance and other similar purpose;
  - appliances/equipment which require critical supply of electricity to maintain proper operation and/or which would incur substantial loss and damage if there is any voltage fluctuation, voltage dip, interruption or failure of supply;
  - appliances/equipment which the survival of live stock will rely on.
3. The capacity of an UPS System and/or ABS System should be determined by the customer based on his specific requirements. The customer is advised to install monitoring system on the equipment/appliance and on the UPS System and/or ABS System to ensure being alerted to abnormal incidents and to make alternative arrangements if the voltage fluctuation, voltage dip, interruption or failure of supply are expected to extend beyond the duration or the capacity of the particular UPS System and/or ABS System.
  4. The customer is responsible for maintaining his UPS System and ABS System and the related monitoring system so that these are kept in good working condition.
  5. The customer should consult an expert or a consultant on which type of UPS System and/or ABS System he should use. The customer is also advised to consult the supplier or manufacturer of his particular equipment/appliance on the requirements of the UPS System and/or ABS System.
  6. The customer should prepare other contingency measures to prevent and minimize any loss or damage if the backup supply also fails.
  7. IT IS THE RESPONSIBILITY OF THE CUSTOMER TO ENSURE THAT AN UPS SYSTEM AND/OR OTHER BACK-UP SYSTEM AS APPROPRIATE IS AVAILABLE FOR IMPORTANT SERVICES.

## **204 APPLICATION FOR SUPPLY/TRANSFER**

1. (a) Any party who wishes to apply for the provision of supply by the Company shall complete and sign an Application Form for Supply/Transfer.
- (b) The Company may, under all reasonable circumstances, accept an application for supply made by telephone or other means for certain accounts. On any such application the Company may require that the prospective customers quote such identity document reference as the Company may consider necessary for the Company's records.

- (c) An application made under Rule 204.1 (a) or (b) is merely a request and neither binds the Company to provide the supply nor constitutes a guarantee of supply notwithstanding that a deposit and/or capital contribution may have been demanded by the Company and paid. The deposit will be refunded and the capital contribution may be refunded in part or in total as reasonably determined by the Company with respect to the circumstances under which the supply cannot be provided or is not required.
2. An application form can be obtained free of charge from the Company's Customer Centre or the Company's Pay-in Centre.
  3. Advice on completion of application form is available free on request. Application form should be delivered to the Company's Customer Centre.
  4. Application for supply or change of load may necessitate the installation of new service cables or special arrangements. It is important that application should be submitted to the Company as far in advance as practicable.
  5. Where large building supplies are required, written application should be made to the Company as early as possible.
  6. The Company will notify applicants of any service charge, and/or deposit which may be payable, or guarantee which may be required.
  7. Every reasonable effort will be made by the Company to provide supply by the required date. However, no guarantee of supply by a particular date can be given.
  8. Before supply is given to an installation, the Company will normally require to be provided with a duly completed Certificate as detailed in Rule 302. The Company will normally inspect the installation of the applicant prior to supply being given. If on inspection, an installation is found to be incomplete or fails to comply with the Supply Rules, a charge will be made for each subsequent inspection.
  9. The Company does not guarantee to provide a supply at any given point. Applicants are advised to confirm supply availability with the Company before commencement of installation work.
  10. An installation whose approved loading is less than 60 amperes should normally be arranged to receive a single phase supply. An installation requiring more than 60 amperes may be required to be arranged to receive a 3-phase supply.

11. There may be occasions when the Company finds it necessary to restrict loading on a single phase supply and would in such cases require that the installation or equipment be arranged for a 3-phase supply.
12.
  - (a) A person who wishes to apply for the transfer of an account into his name shall normally complete an Application Form for Transfer and obtain the endorsement thereon of the registered customer to the transfer.
  - (b) The Company may, under all reasonable circumstances, accept an application for transfer made by telephone or other means for certain accounts. On any such application the Company may require that the prospective customers quote such identity document reference as the Company may consider necessary for its records.
  - (c) The Company may also, under all reasonable circumstances, approve an application for transfer made under either Rule 204.12 (a) or (b) above which has not been endorsed by the registered customer provided that the applicant has paid all outstanding charges irrespective of the existence of a deposit, and provided further that the applicant has paid a new deposit in the amount required by the Company. If the applicant refuses to pay all the outstanding charges, he shall provide tenancy agreement, sale and purchase agreement or other acceptable documentary evidence within a reasonable time as determined by the Company to prove that he is not responsible for the outstanding charges. Otherwise, no transfer of account will be made.
  - (d) In the event that the Company has approved an application for transfer without the registered customer's endorsement, the Company shall have the right to cancel the transfer at any time without giving prior notice nor incurring any liability to the transferee and the transferee shall remain liable for all charges incurred under the account up to and including the date on which the Company cancels the transfer.

## **205 REFUSAL OF SUPPLY**

1. Under all reasonable circumstances, the Company will usually provide and connect supply to a customer installation after being requested to do so. However, the Company may refuse to provide and connect supply under certain circumstances including but not limited to those listed below:
  - (a) where it is impracticable or unsafe to do so because of the location of the customer's premises; or

- (b) if the customer fails to comply with the Supply Rules and other terms and conditions.
2. Where supply is not provided and connected after being requested to do so, the Company will advise the applicant of the reasons for the refusal.

## **206 DISCONNECTION OF SUPPLY**

1. Supply may be discontinued for any breach or non-compliance of the Supply Rules and other terms and conditions, and in particular, but without prejudice to the generality thereof, for any of the reasons listed below. Unless otherwise stated, a customer will be allowed a reasonable time, to be determined by the Company, to satisfy the Company's requirements prior to disconnection of supply.
- (a) Without prior notice, if, in the opinion of the Company, a hazardous condition exists on the customer's installation or premises.
  - (b) Without prior notice, if it is considered by the Company that a customer is operating any installation or equipment in such a manner as to adversely affect the Company's equipment or services to others.
  - (c) Without prior notice, if, in the opinion of the Company, any of the Company's equipment relating to the supply has been tampered or interfered with.
  - (d) Without prior notice, in the event of addition or alteration to, or interference with, or extension of an installation without the Company's prior approval.
  - (e) Without prior notice, in the event of premises being or about to be demolished.
  - (f) Without prior notice, upon notice of petition of bankruptcy or winding up or in the event of bankruptcy or winding up of the customer.
  - (g) Failure to permit the Company reasonable access to its equipment, or to the customer's installation for inspection or any other purposes, including meter reading.

- (h) Failure to meet any outstanding indebtedness to the Company in respect of goods or services supplied by the Company, including charges billed for by the Company pursuant to Rule 231 or Rule 232, notwithstanding the fact that the Company holds a deposit or guarantee in respect of the relevant account.
  - (i) Failure to provide the Company with a deposit and/or additional deposit as may be required by the Company from time to time.
  - (j) Failure by the customer to apply for the provision of supply and/or the transfer of an account by the Company as required under Rule 204.
2. In accordance with the provisions of the Electricity Ordinance and relevant legislation, the Company may disconnect supply to a customer's installation:
- (a) as ordered by the Government; or
  - (b) without notice, where the Company considers that there is an imminent risk of electrical accident; or
  - (c) without notice, where the Company considers it necessary to ensure the safe and stable operation of the Company's system or another customer's installation.

## **207 TEMPORARY SUPPLY**

1. Temporary supply may be obtained with the Company's approval for lighting, construction and/or testing purposes and shall not be used as a permanent supply.
2. Temporary supply will be subject to the same conditions for permanent supply and any additional conditions specified by the Company in writing.

## **208 UNMETERED SUPPLY**

Unmetered supply will only be considered for special cases. Written application should be made to the Company. The Company shall determine any additional conditions of supply for each case.

## **209 HIGH VOLTAGE SUPPLY**

1. The Company reserves the right to provide supply at high voltage where it is deemed necessary to meet the Company's requirements.
2. A customer requiring a high voltage supply to meet his requirements should apply in writing to the Company. Early application should be made as work to provide a high voltage supply normally requires longer completion time.

## **210 ACCOMMODATION FOR COMPANY'S EQUIPMENT**

1. A customer shall provide, free of cost to the Company, the use of the building rising mains and suitable accommodation on or adjacent to his premises to house such equipment as may in the opinion of the Company be required for the purposes of providing and metering supply. The accommodation may include but not be limited to substation premises together with associated structural and electrical and mechanical services, cable entry facilities, switchroom and structures for mounting cutouts and meterboards. The customer shall be responsible for maintaining such accommodation in good order.
2. Any reinstatement of excavation surfaces on a customer's premises after installation or repair of the Company's equipment shall be the responsibility of the customer.
3. Should a customer require the relocation of any Company owned equipment installed in the customer's premises or in premises provided by the customer in accordance with Rule 210.1 and should the Company agree to relocate, the customer shall pay the cost of such relocation.
4. The accommodation to be provided by the customer shall comply in every respect with all current Government regulations and with the Company's requirements.
5. The Company shall have access at all times to the Company's equipment on a customer's premises for the purpose of inspection, meter reading, operation and maintenance. A customer shall not erect any fixtures or fittings in such a way as to obstruct free access for such purposes.
6. A customer shall be responsible for the safe custody of any equipment belonging to the Company which is necessary for the supply to such customer, and which may be located on his premises or adjacent thereto as aforesaid including loss or damage arising as a result of theft, fire, flooding, unauthorised interference or tampering therewith.



## **211 INTERFERENCE OR TAMPERING WITH COMPANY'S EQUIPMENT**

1. A customer must not interfere or tamper with the Company's equipment.
2. Interference or tampering with the Company's equipment may result in death or injury to the parties doing such activities or to parties who come in contact with the equipment interfered or tampered with.
3. Should any part of the Company's equipment on or adjacent to a customer's premises be interfered or tampered with, the Company reserves the right to:
  - (a) disconnect the supply of electricity to that customer immediately;
  - (b) adjust charges payable by the customer as provided for in Rule 232;
  - (c) recover from the customer the cost of making good any damage to or replacement of the Company's equipment and property;
  - (d) recover from the customer the cost of disconnection and reconnection of supply. Such reconnection shall be at the Company's absolute discretion.
4. The provisions of this Rule shall apply notwithstanding the fact that Company's equipment may be located on premises not owned by or let to the customer provided that such equipment is necessary for the supply, distribution or measurement of electricity to the customer.
5. A breach of the provisions of this Rule may also render the customer liable to prosecution under the Theft Ordinance and the remedies set out herein shall be without prejudice to the exercise of any other right or remedy available to the Company.

## **212 PROVISION OF SUPPLY CABLES AND EQUIPMENT**

The Company will normally only be responsible for the provision and maintenance of its supply cables and equipment up to:

1. the Company's main fuses or service terminations;
2. the transit block (but not including the transit block) where supply is given by means of busbars from the Company's substation to an adjacent customer's substation or switchroom;

3. the Company's main terminals within the Company's substation where supply is given by means of cables to an adjacent customer's substation or switchroom.

### **213 SUPPLY POSITION**

1. The electricity supplied to a customer shall normally be provided at a single position approved by the Company. Each such supply position shall be the subject of a separate account.
2. The Company will endeavour to provide supply at the position required by the customer. Where for any reason this is not practical it shall be the customer's responsibility to connect his installation to the nearest supply position provided by the Company.

### **214 METER POSITION**

1. The position of meters must have the prior approval of the Company. The customer and his appointed contractor should ensure that the meter position is approved by the Company before wiring commences.
2. The position and spacing of the meters must be arranged in accordance with the Company's requirements to allow easy and convenient access for meter reading and maintenance.

### **215 CONNECTION OF SUPPLY**

The approval of the Company is required before any installation is connected to the Company's supply mains. Any installation found connected prior to such approval shall immediately be disconnected at the expenses of the customer and, in such circumstances, the customer shall be liable to the Company for any loss, damage, costs and expenses incurred thereby and may also be liable to prosecution under the Electricity Ordinance and other legislation.

### **216 OPERATION OF CUSTOMER'S INSTALLATION**

A customer is responsible for operation and work on his installation as required by the Company for

1. inspection and test of his installation, and

2. connection and disconnection of supply to his or another person's installation.

The Company may operate and work on a customer's installation if

1. the customer fails to carry out the operation and work as required by the Company, or
2. other circumstances which necessitate such operation and work.

## **217 INSPECTION, TESTING AND MAINTENANCE OF CUSTOMER'S INSTALLATION**

1. A customer shall install and maintain his installation in accordance with the requirements of the Supply Rules, other terms and conditions and any relevant laws and regulations of the Government.
2. If the Company has reason to believe that an installation does not comply with the above requirements, the Company may enter a customer's premises to inspect and test such installation upon prior notice being given to customer. Such inspection, test and notice shall be subject to the provisions of the Ordinance as may be required in the circumstances.
3. The obligation to ensure that the installation is at all times safe and complies with the Supply Rules and all legislative requirements remains with the customer and the Company does not warrant that any installation it has inspected and/or tested is safe and complies with the Supply Rules, other terms and conditions and all legislative requirements.

## **218 ADDITIONS OR ALTERATIONS TO EXISTING INSTALLATIONS**

1. A customer wishing to have his electricity supply increased over and above the approved loading, or extend beyond the premises to which the supply is originally intended, or in any way alter his installation which may adversely affect the safe and stable operation of the Company's or another customer's installation, must submit application as detailed in Rule 204.
2. The Company will advise the applicant of any additional charges and/or deposit which may be required.

3. Addition or alteration to, or interference with, or extension of an installation without the Company's prior approval is strictly prohibited and may result in disconnection of supply without prior notice. In addition, the customer shall be liable for all losses, damages, costs and expenses incurred by the Company arising therefrom and may be liable to prosecution under the Electricity Ordinance and other legislation.

#### **219 CUSTOMER'S GENERATING PLANT**

A customer shall take from the Company all the electricity that may be required by him for use at his premises except that he may take electricity from an internal generating plant in times of emergency and for test runs of limited duration. The customer shall not cause an internal generating plant to run in parallel with the Company's supply nor shall any alteration be made to switchgear installed for the purpose of preventing such connection. If uninterrupted supply is required for important services, customers are advised to consider other alternatives as recommended in Rule 203.

#### **220 CUSTOMER NOT TO SUPPLY THIRD PARTIES**

Customers shall not re-sell electricity obtained from the Company unless with the written consent of the Company and under such conditions as the Company may specify.

#### **221 EXTENSION OF SUPPLY TO OTHER CUSTOMERS BY THE COMPANY**

The Company shall have the right to extend supply from a customer's premises to other customers. Such extension may involve any surplus of electricity in excess of the original customer's requirements and may be accomplished by connection to the Company's supply distribution network or equipment at any point up to the original customer's meters. The customer shall not withhold permission for extension of the Company's distribution network across his property to other customers.

## **222 VOLTAGE FLUCTUATION, VOLTAGE DIP, INTERRUPTION OR FAILURE OF SUPPLY**

1. Supply will normally be available continuously and within the frequency and voltage ranges set out at Rule 202. However there may be incidents of interruption or failure of supply, or fluctuation in frequency or voltage outside the ranges set out in Rule 202, or voltage dip, due to third party damage, equipment failure, unsteady or fluctuating demands, action taken by the Company for safety reasons, for improvements, maintenance, alterations and repairs, operational reasons and other causes outside the Company's control of whatsoever nature. Under these circumstances it will not be possible to advise the customer of such incidents.
2. References in these Rules to voltage dip in the Company's supply points mean a voltage dip of the characteristics and indicative values set out in the European Standard EN50160.
3. The Company reserves the right to discontinue supply for such periods as may from time to time be necessary for the purpose of connecting other customers' installations to its system, restoring supply to other customers, carrying out repairs or alterations to its plant or cable, or in any other circumstances necessitating discontinuance. The Company will, where practicable, advise the customer before interruption of supply.
4. The Company may interrupt supply without prior notice for replacement or checking of metering equipment.
5. It is the responsibility of customers to take precautionary measures as recommended in Rule 203 to prevent and minimize any damage, loss, consequential loss or inconvenience caused directly or indirectly by any expected or unexpected voltage fluctuation, voltage dip, interruption or failure of supply howsoever arising.
6. The Company's liability in respect of any disconnection or interruption in supply or fluctuation in frequency or voltage outside the ranges set out in Rule 202 or voltage dip is limited by Rule 234.

## **223 CUSTOMER'S INTERFERENCE WITH QUALITY OF SUPPLY**

The Company may disconnect the supply to any installation, which by reason of unsteady or fluctuating demand or by injection of undesirable waveforms on the Company's system, adversely affects the Company's system and/or the electricity supply to other customers.

The requirements on harmonic voltage and harmonic current distortions are set out below:

Type of Interference	Requirement	
Harmonic Voltage Distortion	The total harmonic distortion shall not exceed 5% for installation supplied at 11kV	
Harmonic Current Distortion	The total odd harmonic distortion shall not exceed the following limits for installation supplied at 380/220V.	
	$I < 40A$	20%
	$40A \leq I < 400A$	15%
	$400A \leq I < 800A$	12%
	$800A \leq I < 2000A$	8%
	$I \geq 2000A$	5%
	Where I is the approved loading of the installation.	
The total even harmonic distortion shall not exceed 25% of the total odd harmonic distortion.		

## **224 POWER FACTOR**

The power factor of a customer's load shall at no time be permitted to fall below a minimum of 0.85 lagging and the customer shall install any correction equipment necessary for maintaining not less than this value. The correction method employed and equipment installed shall comply with the requirements of the Company.

## **225 DEPOSITS**

1. The Company shall be entitled to require, in respect of any account, payment of a deposit or any additional deposit of such amount as the Company may from time to time deem appropriate as security for all charges which may become payable under such account and for the safety of the Company's equipment on the premises supplied by such account. The amount of such deposit may be varied from time to time as reasonably determined by the Company based on historical and anticipated consumption.

2. For an account requiring an amount over a certain level of deposit cover, the Company may consider guarantee in lieu of cash deposit from an institution recognised and approved by the Company in a standard form laid down by the Company. The Company will review the amount of guarantee from time to time as the Company may deem necessary.
3. The deposit will be based on the Company's estimated consumption. The method of calculation will be as laid down in the Company's published charges as varied from time to time.

## **226 DEPOSIT INTEREST**

The Company may, at its discretion, allow interest on cash deposits paid to the Company pursuant to Rule 225.1. Where interest is allowed, it will be calculated and paid as laid down in the Company's published charges as varied from time to time. Interest on cash deposits will cease to accrue upon the termination or transfer, whether or not endorsed by the registered customer, of the account in question.

## **227 DEPOSIT RECEIPTS AND REFUNDS**

1. The Company will issue a deposit receipt in respect of each deposit received for each account maintained by a customer. As for certain accounts, including those registered under Rule 204.1(b) or Rule 204.12(b), for which the customer does not require a deposit receipt, where the Company may decide, at its discretion, not to issue a deposit receipt. A deposit receipt is not a cash voucher. The deposit may, at any time, be used by the Company for payment of outstanding accounts.
2. Where applicable, the deposit receipt is in two parts and the customer must provide a specimen signature kept by the Company on file. This specimen signature shall be prima facie evidence for refund of any deposit.
3. Where a deposit receipt is issued, the Company will accept proper-evidenced endorsement of an authorised signatory in place of the specimen on file in the case of a limited company or unincorporated body for refund of the deposit.
4. Deposit receipts are not transferable.
5. Duplicate receipts are not issued and the loss of a deposit receipt should be immediately reported to the Company. The Company will require a letter of indemnity in the event of refund following loss of a deposit receipt.

6. In the event that, at the time of a claim for repayment of any deposit, there remain any charges outstanding for accounts in the name of the registered customer then the Company may apply all or part of the deposit in settlement of such outstanding charges.
7.
  - (a) Where a deposit receipt is issued, the Company shall on termination or transfer of the account require presentation of such receipt before making any refund of the deposit.
  - (b) Where a deposit receipt is not issued, on termination or transfer of the account, the Company shall require the registered customer making the request for return of the deposit to quote the relevant identity document reference furnished pursuant to Rule 204.1(b) and/or Rule 204.12(b) above and/or provide any other identity information as considered necessary by the Company before making any refund of deposit. The Company may, at its discretion, refuse to refund the deposit if the aforementioned information is incomplete or is different from the Company's record.

#### **228 SERVICE CONNECTION CHARGE**

The Company reserves the right to make a charge for providing a supply.

#### **229 METERING OF ELECTRICITY**

To determine the amount of electricity consumed and the electricity demanded, a meter or meters will be installed by the Company on or adjacent to the customer's premises. The register or indicator of the meter shall be prima facie evidence of the amount of electricity consumed and the electricity demanded.

#### **230 ACCURACY OF METER**

Should the accuracy of a meter be disputed, the customer may request an accuracy test to be carried out by the Company. A test fee will be charged if the meter is found to be operating within the permissible limits of plus 2.5% or minus 3.5%.



## **231 SETTLEMENT OF CHARGES**

1. Bills will be presented periodically on the basis of the Company's published tariffs and the readings obtained from the Company's meters. In the event that it is not possible to read the meter, the Company will bill the customer for estimated consumption and demand during the billing period, and make any necessary adjustments when a reading is obtained.
2. In the event of tariff revision, and/or adjustment of fuel clause, the revised tariff and/or adjustment shall apply to the consumption and demand as and from the effective date of the revision and/or adjustment announced by the Company. If the effective date of the revision and/or adjustment falls within any billing period, the Company shall be entitled to apply the revised tariff and/or adjustment to the bill for the period in which the revised tariff and/or adjustment is to take effect on a pro-rata basis.
3. Bills relating to certain tariff may bear a due date and must be settled on or before the due date. A customer who fails to settle a bill on its due date may be required to pay additional charges. Bills that do not bear a due date are payable upon presentation.
4. In the event of non-payment of bills by the customer the Company may disconnect supply without prior notice and without prejudice to the exercise of its other rights or remedies. A charge shall be paid by the customer for any reconnection of supply. The Company does not guarantee immediate re-connection.
5. If a customer is the customer for more than one account, the Company may apply all or part of any of the deposits or guarantees held by or issued to the Company in respect of any of the accounts to set off any amount owed to the Company by the customer.
6. The Company may present bills by electronic means, such as by facsimile transmission or electronic mail, if requested or agreed by the customers.

## **232 ADJUSTMENT OF CHARGES**

1. When a meter is found to be operating outside the limits of accuracy stipulated in Rule 230, due to normal wear and tear, the Company will make a retrospective adjustment to the customer's account in respect of consumption and demand for a period not exceeding three months.

2. In the event that a meter is found not to be properly recording consumption or demand of electricity due to interference, tampering, disconnection, malfunction (other than normal wear and tear) or otherwise of the meter or of ancillary facilities or connecting cables, the customer shall pay for the consumption and demand of electricity during the period during which the meter ceased to record properly. This period and amount of consumption and demand of electricity shall be determined by the Company based on any available technical evidence, records and other relevant circumstances.
3. When a customer has been undercharged or overcharged due to any mistake or error such as:
  - (a) incorrect reading of a meter;
  - (b) incorrect application of a meter multiplying constant;
  - (c) connection of a meter to unmatched equipment;
  - (d) cross-connection by the Company of equipment relating to different accounts;
  - (e) stuck meter;
  - (f) malfunction of the meter or its associated equipment or part thereof;
  - (g) cross-connection other than by the Company of equipment relating to different accounts;
  - (h) unauthorised tapping of electricity;
  - (i) disconnection, incorrect connection or non-connection of or any unauthorised interference with the meter or its associated equipment or part thereof; or
  - (j) any artificial means that causes an alteration of the index to any meter or prevents any meter from duly registering the quantity of electricity supplied;

the Company will on the basis of its records, available technical evidence, the customer's consumption history and other relevant circumstances, make retrospective adjustments to the customer's account in respect of consumption and demand to such extent and for such period as may be determined by the Company.

4. The Company will endeavour to charge in accordance with the correct customer classification based on the information provided by the customer on his application for provision of supply or application for transfer of an account under Rule 204. However it is the responsibility of the customer to notify the Company of any incorrect classification by the Company or of any change of classification by the customer. In the event that incorrect classification leads to a loss in revenue by the Company, the Company shall be entitled to make retrospective adjustment to the customer's account in respect of tariff rate for such period as may be determined by the Company on the basis of its records available, technical evidence, the customer's consumption history and other relevant circumstances.
5. The Company may advise a customer of any adjustment to his account by way of an amended or supplementary bill. In the event that non-payment of an amended or supplementary bill by a customer, the Company may disconnect supply without prejudice to the exercise of its other rights or remedies. A charge shall be paid by the customer for reconnection of supply.
6. The Company has no obligation to make any refund under this Rule in respect of an account which has been closed. Where the Company makes a refund pursuant to this Rule it shall have the absolute discretion of making the refund either to the registered customer of the account in question or, when supply under such account is not used by the registered customer, to any party the Company thinks fit. In making refund, the Company shall have the absolute discretion of either making a refund in cash or by cheque or crediting the account in question with the amount to be refunded. The Company shall have no obligation to pay interest on amounts to be refunded by the Company pursuant to the Supply Rules.

## **233** TERMINATION OF ACCOUNT

1. A customer intending to vacate any premises, transfer his account or requiring his electricity supply to be discontinued must give at least two full working days' notice to terminate the account. The request for termination of account shall normally be made in writing. If less than two full working days' notice is given, the customer shall be responsible to the Company for any electricity consumed on his premises until two full working days after receipt of such notice.

2. Failing receipt by the Company of written notice to terminate an account, the customer will be held responsible for any and all electricity consumed until such time as the meter has been removed or disconnected by the Company, or the transfer of his account has been completed, notwithstanding that the customer may in the meantime have ceased to occupy the premises. The customer will also be liable for damage to or loss of any of the Company's equipment, and for any consequential damage resulting from the failure to give such notice to the Company.
3. The Company may, under all reasonable circumstances, accept a request for termination of account by telephone or other means from the customer for certain accounts. The customer making such request shall be required to quote the identity document reference and/or provide any other identity information as considered necessary by the Company. The Company may, at its discretion, refuse to terminate the account if the aforementioned information is incomplete or different from the Company's record.

#### **234** LIMITATION OF LIABILITY

1. The Company accepts any liability it may have in law to the customer subject to the limitations of liability which are set out in these Rules.
2. The Company shall not be liable for any indirect, consequential or economic loss or damage of whatsoever nature and howsoever arising, which shall include but not be limited to any loss of revenue or profit suffered by a customer or any other person.
3. The maximum amount of the Company's liability to the customer or any other person in respect of any loss or damage as a result of the occurrence of any event or of any series of events which arise substantially from the same cause will be limited to HK\$2,000,000.
4. The Company shall not be liable for any loss, expenses, damage or liability incurred by the customer or any other person arising from any one or more of the following:
  - (a) any delay in the provision of supply by the required date under Rule 204 in respect of which the Company has made reasonable efforts to achieve;

- (b) any refusal of supply by the Company due to circumstances referred to in Rule 205 or for any other lawful reason;
- (c) any voltage dip or any fluctuation in frequency or voltage within the ranges set out at Rule 202;
- (d) any disconnection or interruption in supply or voltage dip or fluctuation in frequency or voltage arising from operational reasons, which shall include but not be limited to those circumstances set out at Rule 222;
- (e) any disconnection of supply by the Company reasonably arising from any breach or non-compliance by the customer of the Supply Rules, which shall include but not be limited to any act of breach or non-compliance referred to at Rule 206;
- (f) any interruption in supply or voltage dip or fluctuation in frequency or voltage arising from any failure by the customer to follow any of the recommendations or advice set out at Rule 203;
- (g) any operations, works, inspection, testing or maintenance of the customer's installations under Rule 216 or 217;
- (h) any disconnection by the Company reasonably necessary for the purpose of connecting other customers' installations to its system, or for restoring supply to other customers;
- (i) any works of improvements, alteration, repair or maintenance which the Company reasonably carries out;
- (j) any step which the Company reasonably takes for safety reasons;
- (k) any step which the Company reasonably takes pursuant to its statutory duties;
- (l) any matter reasonably beyond the control of the Company, which shall include but not be limited to any act or omission of a supplier;
- (m) termination of an account under Rule 233.3, or return of the deposit under Rule 227.7, on the instructions of a person who is not but purports to be the customer, provided that the Company has exercised all reasonable care with regard thereto.

5. Nothing in these Supply Rules shall exclude any liability for claims arising from death or personal injury.
6. While the Company is of the opinion that the limitations set out in these Rules are reasonable, if any is adjudged to go beyond what is reasonable for the protection of the legitimate business interests of the Company but would be reasonable if there was a modification to the limitation, the relevant limitation shall apply with the modification which is necessary to make it valid and effective.

## SECTION 300

### TECHNICAL REQUIREMENTS FOR CONNECTION OF SUPPLY

#### **301** GENERAL

1. A customer shall not do personally or offer or undertake to do electrical work personally unless he is a registered electrical worker who is entitled by his certificate to do the work. Failing to observe this requirement may render the customer liable to prosecution under Electricity Ordinance and other legislation and may result in death, injury or damage to property.
2. All installation connected to, or intended to be connected to the Company's supply of electricity must comply with the latest edition of all the relevant Ordinances, Regulations and the requirements prescribed by the Company.
3. These requirements are not intended to take the place of a detailed specification nor to instruct untrained persons nor to provide for every circumstances. The Company will give general advice, free of charge, on the suitability of any special arrangement for an installation.
4. All electrical conductors shall be of sufficient size and current-carrying capacity for the purpose for which they are intended, with allowance made for future load growth.
5. The customer shall ensure that his installation is maintained in a safe and proper working condition at all times.
6. Every item of equipment shall comply with the relevant requirements of the current edition of the applicable international standard, recognised national standards of developed countries or other suitable standards accepted by the Company.

### **302 INSPECTION, TESTING & CERTIFICATION**

Before supply is connected to an installation or an extension or addition or alteration of an installation, the registered electrical worker shall ascertain that the rating and the condition of any electrical equipment of the affected parts (including that of the communal installations) are suitable and adequate for the circumstances.

The registered electrical worker shall inspect, test and certify that an installation complies with the requirements of the relevant Ordinances and the Supply Rules, and provide the Company with a duly completed Certificate prescribed by the Government.

### **303 CUSTOMER MAIN SWITCH**

1. A customer main switch or circuit breaker shall be provided for every customer's installation which shall interrupt all live conductors of the installation. The main switch or circuit breaker shall be readily accessible to the customer and shall incorporate:
  - (a) means of isolation and switching,
  - (b) means of protection against overcurrent, and
  - (c) means of protection against earth leakage.

For a 3-phase 4 wire supply, a linked switch or linked circuit breaker may be arranged to disconnect the phase conductor only. In such case a link shall be inserted in the neutral conductor and securely fixed by bolts or screws.

2. The means of isolation and switching shall be:
  - (a) a device selected and installed in such a way as to prevent unintentional reclosure,
  - (b) capable of cutting off the full load current of the whole installation from supply,
  - (c) provided with clearly and reliably indicated ON & OFF position.



3. The means of protection against overcurrent shall be a device capable of breaking (and for circuit breakers, making) any overcurrent up to and including the prospective short circuit current at the point where the device is installed. Such device may be circuit breaker incorporating overload release, or fuse, or circuit breaker in conjunction with fuses.

Where supply is taken directly from the Company's transformer or underground cable, the main switch or circuit breaker shall have a short-circuit breaking capacity of 40kA symmetrical at low voltage.

4. The means of protection against earth leakage shall be by earthed equipotential bonding and automatic disconnection of supply.

The characteristics of the protective device for automatic disconnection and the earth fault loop impedance at the main switch shall be co-ordinated so that disconnection is achieved within 5 seconds during an earth fault.

5. Means of protection shall be graded with the Company's infeed.
6. A customer main switch shall be installed and connected immediately before the Company's meter.
7. Where a customer's installation comprises installations in two or more buildings, means of local isolation complying to Rule 303.2 shall be provided in each building.
8. A circuit breaker used to receive supply from the Company's transformer shall normally be of draw-out type. An isolator may be used in conjunction with fixed type circuit breaker provided it is mechanically interlocked with the circuit breaker.
9. Where the supply is designed to be taken from more than one transformer, interconnection facilities between main incoming circuit breakers are recommended and should be arranged in accordance with the Company's requirements. All incoming and interconnection circuit breakers should be of 4-pole type interrupting all live conductors and mechanically and electrically interlocked to prevent the Company's transformers from operating in parallel.

Where a standby generator is installed, a mechanically and electrically interlocked 4-pole changeover device shall be used for interconnection between the normal and standby sources to ensure that neutral unbalance and fault currents return to the correct source of supply.

10. A local switch shall be provided after the change-over device.
11. Where a customer's installation is supplied from an overhead line system, the installation shall be protected against earth leakage by residual current device.
12. Customer's main conductor between the Company's meter and the customer main switch shall be installed and maintained by the customer and shall not be less than 4 sq.mm stranded copper conductor.

Neutral conductor shall have a cross-sectional area not less than that of the phase conductor unless otherwise approved by the Company.

13. A schematic wiring diagram showing the main distribution system shall be displayed near the main switch.

### **304 COMMUNAL INSTALLATION**

1. In multi-customer premises no part of communal installation shall pass through any individual customer's unit within the building.
2. A main switch shall be installed to control all communal installations connected to the same source in the building.
3. Rising Mains Installation
  - (a) Any building of more than four floors including the ground floor and designed for occupation of more than one customer shall be provided with 3 phase 4 wire electrical rising mains with 3 phase and neutral tee off at each floor unless otherwise agreed by the Company.
  - (b) Rising mains installation shall comply with the Company's requirement.
  - (c) In premises intended for multiple occupation, separate riser earthing conductors shall be provided to earth all the units. The minimum cross-sectional area of riser earthing conductor shall be 70 sq.mm for copper and 150 sq.mm for aluminum.

**305 LOW VOLTAGE INDUCTION MOTOR**

Motors shall not adversely affect the Company’s system and/or the electricity supply to other customers during starting.

1. The choice of motor size and maximum acceptable starting current shall be in accordance with the following table:

Supply Arrangement	Motor Size (M) in kilowatts	No. of Phase	Maximum Starting Current (in Multiple of Full Load Current)
From Company’s Overhead Line System	$M \leq 1.5$	1-phase	6
	$1.5 < M < 3.8$	3-phase	6
	$3.8 \leq M \leq 11$	3-phase	2.5
From Company’s Non-Overhead Line System	$M \leq 2.2$	1-phase	6
	$2.2 < M < 11$	3-phase	6
	$11 \leq M \leq 55$	3-phase	2.5

2. Motors exceeding the sizes listed above shall not during starting cause voltage dip exceeding the figures given below:

	Interval between Startings	Maximum Voltage Dip
Infrequent Starting	Exceeding 2 hours	3%
Frequent Starting	Not exceeding 2 hours	1%

3. Motors exceeding the limits stipulated in Rule 305.1 and Rule 305.2 must be approved in writing by the Company.
4. Synchronous motors or high voltage motors shall only be installed by special arrangement with the Company.

**306 ELECTROMAGNETIC FIELD (EMF) SHIELDING AND SURGE PROOF SUPPLY EQUIPMENT**

Customers are advised to install their own EMF shielding and surge proof supply equipment to protect their own sensitive equipment from interference and/or damages. In this connection, advisory service is available from the Company.

## APPENDIX

### DEFINITIONS

- Approved Loading : The maximum current demand approved by the Company in respect of an installation.
- Company's Equipment : Any equipment which is the property of the Company used for the purposes of generating, transmitting, distributing, supplying, or measuring electricity.
- Consumer : Same as customer
- Customer : Any individual, partnership, association, firm, public or private corporation, or governmental agency being supplied with electricity by the Company at any specified location whether or not he is registered with the Company as the customer at such location.
- Customer Main Switch : A device which is installed and connected immediately adjacent to the Company's meter to enable all voltage to be cut off from every circuit of the customer's installation.
- Electrical Equipment : Machines, transformers, apparatus, appliances, measuring instruments, protective devices, wiring material, accessories, fittings and similar things, used for generation, conversion, transmission, distribution, control, measurement or utilization of electrical energy.
- Installation : An assembly of associated electrical equipment.
- Meter : A measuring instrument and associated equipment belonging to the Company designed to measure, register and indicate the integral value of electrical consumption or demand with respect of time.
- Premises : Any structure, building, land, pier, seawall or wharf, floating platform or structure or any part thereof.
- Registered Customer : A customer registered with the Company for supply of electricity at the registered service premises.

- Rising Mains : That part of the installation which is used for distribution of electricity throughout any building normally used for multiple occupation.
- Supply : Supply of electricity by the Company.
- Supply Rules : The published Supply Rules of the Company as amended from time to time.
- The Company : The Hongkong Electric Co., Ltd. (香港電燈有限公司) whose registered office is at 44 Kennedy Road, Hong Kong.
- The Government : The Government of the Hong Kong Special Administrative Region.
- Voltage, nominal : Voltage by which an installation (or part of an installation) is designated. The following ranges of nominal voltage (r.m.s. value for a.c.) are defined:
- Extra Low : normally not exceeding 50V a.c. or 120V d.c. whether between conductors or to earth.
  - Low : normally exceeding Extra-Low voltage but not exceeding 1000V a.c. or 1500V d.c. between conductors, or 600V a.c. or 900V d.c. between conductors and earth.
  - High : exceeding Low voltage.

**The Hongkong Electric Co., Ltd.**

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44 Kennedy Road, Hong Kong