# RULES AND RATES FOR ELECTRIC SERVICE

## NOTICE

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#### I. GENERAL PROVISIONS

#### 1. Application

- (1) Kyushu Electric Power Co., Inc. (hereinafter referred to as "KYEPCO"), upon supplying electric service in response to public demand, conform to the tariff and other supply conditions set forth in the Rules and Rates for Electric Service (hereinafter referred to as the "Rules and Rates"). However, the Rules and Rates do not apply to electric service supplied in response to demand at delivery points where Specified Power Demand (demand in the deregulated segment) is in effect and where the special electricity industry has been established.
- (2) The Rules and Rates apply to electric service supply to any of the following areas, which constitute the KYEPCO service area: the prefectures of Fukuoka, Saga, Nagasaki, Oita, Kumamoto, Miyazaki, and Kagoshima.

## 2. Approval and Revision of the Rules and Rates

- (1) The Rules and Rates have been submitted to the Minister of Economy, Trade and Industry, pursuant to the provisions of Article 19.4 of the Electricity Utilities Industry Law.
- (2) KYEPCO may revise the Rules and Rates subject to the approval of or notification to the Minister of Economy, Trade and Industry. Upon such revision, the electric tariff and other supply conditions are governed by such revised Rules and Rates.

#### 3. Definitions

The following terms and phrases herein have the meanings defined below:

- (1) Low Voltage: A standard voltage of 100 or 200 volts.
- (2) **High Voltage**: A standard voltage measuring 6,000 volts.
- (3) **Lamp**: Any incandescent, fluorescent, neon tube or mercury lamp or other electric device used for lighting, including accessories.
- (4) **Small-scale Appliance**: Any low-voltage electric device, other than a lamp, used in a single-phase mainly in homes, stores, offices or other similar establishments. However, electric devices that interfere or may interfere with lamp use by other customers due to causes such as sudden voltage fluctuation and cannot be used with lamps are excluded.
- (5) **Power Appliance**: Any electrical device other than a lamp or small-scale appliance.
- (6) **Contract Load Equipment**: Load equipment permitted for use under the electricity supply service contract or contracts (hereinafter referred to as "contract(s)").
- (7) **Contract Main Circuit Breaker**: A circuit breaker, which is installed under the contract and cuts off the power line against the current exceeding the rated current, thereby limiting the maximum

- current used by the customer.
- (8) **Contract Current**: Maximum current in amperes permitted under the contract and converted to the amperage for AC (alternating current), single-phase, two-wire and standard voltage of 100 volts.
- (9) **Contract Capacity**: Maximum capacity in kilovolt-amperes permitted under the contract.
- (10) Contract Power: Maximum power in kilowatts permitted under the contract.
- (11) Summertime: Period from July 1 to September 30 of each year.
- (12) Other Seasons: Period from October 1 of each year to June 30 of the following year.
- (13) **Quarter**: Periods from January 1 to March 31, from April 1 to June 30, from July 1 to September 30, and from October 1 to December 31 of each year.
- (14) Customs Clearance Statistics: Statistics published pursuant to the Customs Law.

#### 4. Units and Fractions

In the Rules and Rates, units and fractions shall be handled as described below for the purpose of calculating electric charges and other amounts.

- (1) The capacity unit of contract load equipment shall be one (1) watt or one (1) volt-ampere. Any fraction of half of one (1) watt or volt-ampere or more will be rounded up; if the fraction is less than half of one (1) watt or volt-ampere, it will be disregarded.
- (2) The contract capacity unit shall be one (1) kilovolt-ampere. Any fraction of half of one (1) kilovolt-ampere or more will be rounded up; if the fraction is less than half of one (1) kilovolt-ampere, it will be disregarded.
- (3) The contract power unit shall be one (1) kilowatt. Any fraction of half of one (1) kilowatt or more will be rounded up to the next full kilowatt; if the fraction is less than half of one (1) kilowatt, it will be disregarded. However, the contract power unit shall be 0.5 kilowatt for Low Voltage Power, Temporary Power, or Agricultural Power if the value calculated pursuant to (4) of 20 (Low Voltage Power Service) is 0.5 kilowatt or less.
- (4) The energy consumption unit shall be one (1) kilowatt-hour. Any fraction of half of one (1) kilowatt-hour or more will be rounded up to the next full kilowatt-hour; if the fraction is less than half of one (1) kilowatt-hour, it will be disregarded.
- (5) The power factor unit shall be one (1) percent. Any fraction of half of one (1) percent or more will be rounded up to the next full percent; if the fraction is less than half of one (1) percent, it will be disregarded.
- (6) The unit used for calculating total electric charges or other amounts shall be one (1) yen. Any fraction less than one (1) yen will be disregarded.

# 5. Particulars upon Implementation

Any particulars necessary for the implementation of the Rules and Rates shall be determined by agreement between KYEPCO and the customer as necessity demands, conforming to the purpose thereof.

## II. APPLICATION FOR SUPPLY SERVICE CONTRACT

#### 6. Application for the Supply Service Contract

(1) When a customer requests a new supply service contract, the customer must agree to the provisions of the Rules and Rates. KYEPCO may request that the customer use the designated forms when applying and include the items listed below. It should be noted that KYEPCO may accept the application in person or by telephone if the content of the application is simple.

Items: contract category, power supply method, delivery point, customer's premises for electricity use (hereinafter referred to as "customer's premises"), supply voltage, contract load equipment, contract main circuit breaker, contract current, contract capacity, contract power, power generation facilities, type of business, purpose of energy use, preferred date of supply service commencement, energy use period and payment method.

- (2) The customer shall provide KYEPCO with information regarding contract load equipment, contract current, contract capacity and contract power based on the maximum electric load for the year. In this case, the customer is required to submit to KYEPCO the energy consumption plan for the year from the date supply service is to begin in order to verify the maximum load for the year if the necessity rises.
- (3) If construction work for the supply facilities is necessary, the customer shall inquire, as a rule, about the status of KYEPCO's supply facilities prior to the application as supply may not commence immediately due to reasons such as siting.
- (4) If there is a possibility that damage may be caused to the customer's facilities due to voltage or frequency fluctuation, the customer shall take necessary measures, such as the installation of a non-interruptive power supply device. If a customer requires electricity for reasons of safety and security, the customer shall identify the necessary capacity and apply for Standby Power or take necessary actions such as the installation of generation equipment or battery for safety and security purposes.

#### 7. Conclusion of the Contract and Contract Period

- (1) The service contract will become effective when the customer's application is accepted by KYEPCO.
- (2) The contract period is as stipulated below:
  - (A) The contract period shall begin on the day the service contract becomes effective and continue until one year after the commencement of the billing, which is the day electric

- charges are first applied, except in cases of Temporary Light or Temporary Power.
- (B) Unless the service contract is terminated or changed before the expiration of the contract period, the service contract shall be continued annually under the same terms and conditions.
- (C) The contract period for Temporary Light and Temporary Power shall be from the day the service contract becomes effective to the expiration day of the contract use period (the period of time during which electricity use is allowed under the contract), as previously agreed upon.

#### 8. Customer's Premises

(1) KYEPCO shall recognize, in principle, one site to be the customer's premises for electricity use. For cases that cannot be based on the above, the site shall be as defined in (2) or (3).

A site refers to an area that is clearly divided by fences, walls or barriers and to which the general public does not have free access; in principle, each structure in the area belongs to the same accounting entity.

(2) KYEPCO shall recognize one building to be the customer's premises for electricity use. For cases that cannot be based on the above, the building shall be as defined in (3).

Further, a building refers to an independent building structure. However, more than one building may be deemed as one building if they are considered unified as a single structure. This includes a case in which they are connected above or below ground and have\_the same owner and user. Further, advertising illumination, garden lamps or gate lamps attached to the building are considered to be on the same customer's premises.

(3) Special cases for sites or buildings shall be treated as defined below.

#### (A) Residential buildings

When, within one building, there is more than one section belonging to a different accounting entity, each such section may constitute a customer's premises if all of the following conditions are satisfied. In such case, the area of common use shall be considered as one customer's premises for electricity use.

- (a) Each such section is clearly divided with fixed partition walls or doors;
- (b) Each such section has its own indoor distribution facilities installed separately; and,
- (c) Each such section has the necessary functions of a residence as a household unit, such as having facilities for cooking.

## (B) Non-residential buildings

When there is more than one section within one building with a different accounting entity, each such section may constitute a customer's premises if each such section is clearly divided with fixed partition walls and has no area of common use, or if the owners of such sections are not the same customer. In such a case, the area of common use shall be considered as one customer's premises for electricity use.

## (C) Partially residential or non-residential building

When there are residential and non-residential sections within one building, the provision of (B) above shall apply. However, where residential and non-residential sections are clearly divided with fixed partition walls, such as a building with stores and apartments, only the residential section shall be treated as defined in (A) above.

#### (D) Others

Facilities such as street lamps that do not belong to the site and are installed separately from the buildings may constitute one customer's premises.

#### 9. Unit of Service Contract

One service contract will be concluded for one contract category at one customer's premises, except in the following cases:

- (1) Contracts for one customer's premises cover two or more of the contract categories of Temporary Lighting (any one of the subcategories), Temporary Power or Agricultural Power or a combination of one of these contract categories and a contract category other than these or a combination of one of these contract categories and two contract categories other than these in the case of (2) below.
- (2) Customers utilizing the service for a combination of lamps and/or small-scale appliances and power appliances enter contracts covering a combination of the contract categories of Flat-Rate Lighting and Low Voltage Power or a combination of the contract categories of Residential Lighting (any one of the subcategories) and Low Voltage Power.

## 10. Commencement of Supply Service

- (1) Once a customer's application for a contract is accepted, KYEPCO will set a date to begin supply service upon agreement with the customer. Supply service shall begin as soon as all preparations and necessary procedures have been completed.
- (2) If it becomes evident that KYEPCO is unable to begin the supply service on the agreed-upon date due to weather conditions, negotiations regarding siting or service interruption, or any other unavoidable reason, KYEPCO will inform the customer of such reasons and agree on a new date to begin service.

## 11. Unit of Supply

KYEPCO will provide the electric supply service for each contract through one power supply method with one service line and one meter except:

- (1) Service is supplied through the common use service line as defined in (1) of 53 (Extension Service Lines and Others).
- (2) It is unavoidable for technical or economical reasons.

## 12. Limitation on Acceptance of Application

KYEPCO may refuse to accept all or part of a customer's application for a supply service contract for legal reasons or any other unavoidable reasons or due to the situation of supply and demand, the circumstances of KYEPCO's supply facilities or the payment situation (including overdue payment from other contracts as well as those from already terminated contracts). In these cases, the customer will be notified of such reasons.

## 13. Preparation of Supply Service Contract

A supply service contract shall be prepared, including the items necessary for the supply of electricity, if special conditions so require and if the customer makes such a request or KYEPCO considers it necessary.

## III. CONTRACT CATEGORIES AND RATES

## 14. Contract Categories

The contract categories for electric supply service include:

Use	Contract categories	
	Flat-Rate Lighting	
		A
	Residential Lighting	В
		С
Lighting		A
	Temporary Lighting	В
		С
	D 11' C	A
	Public Street Lighting	В
D	Low Voltage Power	
	Temporary Power	
Power	A ami aviltuma l Davvan	A
	Agricultural Power	В

#### 15. Rates

- (1) The rates shall be either the "net charge for prompt payment", as provided hereunder for each contact category, when payment is made within the prompt payment period, or the "net charge for late payment" when payment is made after the prompt payment period. However, in the case of (1) (A) of 27 (Billing), the net charge obtained by per-diem calculation pursuant to 28 (Per-Diem Calculation) for a terminated contract shall be the net charge for prompt payment.
- (2) The net charge for late payment shall be obtained by adding three (3) percent to the net charge for prompt payment.
- (3) The prompt payment period is as stipulated below.

If the last day of the prompt payment period (hereinafter referred to as the "last prompt payment day") falls on a Sunday or days specified by the ordinance set forth in 15.1 of the Banking Law (hereinafter referred to as "holidays"), the last prompt payment day shall be postponed until the following day. If the postponed last prompt payment day is also a Sunday or holiday, it shall be postponed to the day after that.

- (A) The prompt payment period is a 20-day period beginning on the day after the date the customer incurs payment obligations pursuant to (1) of 29 (Payment Obligation and Payment Period).
- (B) For customers located in areas specified by KYEPCO, where the billing is made after the following meter reading day, the prompt payment period shall be the 20-day period beginning on the day after such following meter reading day notwithstanding (A) above.
- (C) If KYEPCO conducts or is deemed to have conducted meter reading prior to the day designated for the meter reading area the customer belongs to (hereinafter referred to as "preset meter reading day"), the prompt payment period shall be the 20-day period beginning on the day after such preset meter reading day notwithstanding (A) above.

## 16. Flat-Rate Lighting Service

## (1) Application

This contract category is applicable to customers utilizing lamps and/or small-scale appliances when the total capacity, which is expressed in input capacity is 400 volt-amperes or less. If the ratings are expressed in output capacity, the input capacity for each item of contract load equipment must be obtained by applying the conversion rates in Schedule 3 (Converted Input Capacity of Load Equipment).

## (2) Power Supply Method, Supply Voltage and Frequency

Power is supplied in AC, single-phase two-wire, at a standard voltage of 100 or 200 volts and with 60 Hertz as the standard frequency. However, power may be supplied in AC, single-phase three-wire, at a standard voltage of 100 and 200 volts if the customer's special circumstances so require.

#### (3) Contract Load Equipment

The customer is required to define the contract load equipment in advance.

#### (4) Net Charge for Prompt Payment

The net charge for prompt payment is the sum total of the customer charge, the lamp charge and the small-scale appliance charge. However, if the average fuel price calculated pursuant to (1) (A) of Schedule 1 (Fuel Cost Adjustment) is lower than ¥18,300, the fuel cost adjustment amount calculated pursuant to (1) (D) of Schedule 1 (Fuel Cost Adjustment) shall be subtracted from the lamp charge and/or small-scale appliance charge. If the average fuel price calculated pursuant to (1) (A) of Schedule 1 (Fuel Cost Adjustment) is higher than ¥20,100, the fuel cost adjustment amount calculated pursuant to (1) (D) of Schedule 1 (Fuel Cost Adjustment) shall be added to the lamp charge and/or small-scale appliance charge.

## (A) Customer charge

The customer charge per month is shown below.

## (B) Lamp charge

(a) The lamp charge per month is detailed below for each unit of contract load equipment.

Per lamp up to 20 watts	¥113.40
Per lamp over 20 and up to 40 watts	¥184.80
Per lamp over 40 and up to 60 watts	¥256.20
Per lamp over 60 and up to 100 watts	¥399.00
Per lamp over 100 watts, for every 100 watts	¥399.00

- (b) The lamp charge is applicable to the total capacity, which is expressed in input capacity, of the neon tube lamps, fluorescent lamps, mercury lamps, etc., including necessary accessories, where one (1) volt-ampere of capacity is counted as one (1) watt. If the ratings are expressed in output capacity, the input capacity must be obtained by applying the conversion rates in Schedule 3 (Converted Input Capacity of Load Equipment.
- (c) The lamp charge is applicable to the total capacity, which is expressed in input capacity, of fluorescent lamps with multiple bulbs, where one (1) volt-ampere of capacity is counted as one (1) watt. If the ratings are expressed in output capacity, the input capacity must be obtained by applying the conversion rates in Schedule 3 (Converted Input Capacity of Load Equipment).

## (C) Small-scale appliance charge

The small-scale appliance charge per month shall be determined for each unit of contract load equipment as given below according to the size of the capacity, which is expressed in input capacity; if the ratings are expressed in output capacity, the input capacity must be obtained by applying the conversion rates in Schedule 3 (Converted Input Capacity of Load Equipment).

Per appliance up to 50 volt-amperes	
Per appliance over 50 and up to 100 volt-amperes	
Per appliance over 100 volt-amperes, for every 50 volt-amperes	¥145.42

#### 17. Residential Lighting Service

- (1) Residential Lighting A
  - (A) Application

This contract category is applicable to customers utilizing lamps and/or small-scale appliances when both of the following conditions are satisfied:

- (a) The maximum current (as converted in AC, single-phase two-wire, and at a standard voltage of 100 volts) is 5 amperes or less.
- (b) Flat-Rate Lighting cannot be applied.
- (B) Power supply method, supply voltage and frequency

Power is supplied in AC, single-phase two-wire, at a standard voltage of 100 or 200 volts, or in AC, single-phase three-wire, at a standard voltage of 100 and 200 volts, and with 60 Hertz as the standard frequency.

#### (C) Contract current

- (a) The contract current shall be five (5) amperes.
- (b) KYEPCO installs the current limiter according to the contract current. However, KYEPCO may decide against the installation in cases where there is no possibility that the maximum current will exceed the contract current because, for example, a current limiting device was already installed by the customer.

## (D) Net charge for prompt payment

The net charge for prompt payment is determined by the amount of energy consumed during the billing month. However, if the average fuel price calculated pursuant to (1) (A) of Schedule 1 (Fuel Cost Adjustment) is lower than ¥18,300, the fuel cost adjustment amount calculated pursuant to (1) (D) of Schedule 1 (Fuel Cost Adjustment) shall be deducted from such determined amount. If the average fuel price calculated pursuant to (1) (A) of Schedule 1 (Fuel Cost Adjustment) is higher than ¥20,100, the fuel cost adjustment amount calculated pursuant to (1) (D) of Schedule 1 (Fuel Cost Adjustment) shall be added to such amount.

Minimum charge	Per contract, for first 12 kWh	¥294.00
Energy charge	Per kWh exceeding the above amount	¥15.50

## (2) Residential Lighting B

## (A) Application

This contract category is applicable to customers utilizing lamps and/or small-scale appliances when both of the following conditions are satisfied:

- (a) The contract current is within 10 amperes or more and 60 amperes or less.
- (b) The service contract for a customer's premises also covers Low Voltage Power, and the sum total of the contract current and contract power (in this case, ten (10) amperes are considered as one (1) kilowatt) is less than fifty (50) kilowatts.

However, when the contract for a customer's premises also covers Low Voltage Power and the customer so requests, Residential Lighting B may apply to a case that satisfies the condition in (a) even when the sum total of the contract current and contract power described in (b) is fifty (50) kilowatts or more, provided that KYEPCO considers supply at low voltage to be appropriate technically and economically based on the status of the customer's electricity consumption and the condition of KYEPCO's supply facilities. In this case, KYEPCO may install supply facilities, such as transformers, at the customer's site or building.

## (B) Power supply method, supply voltage and frequency

Power is supplied in AC, single-phase two-wire, at a standard voltage of 100 volts, or in AC, single-phase three-wire, at a standard voltage of 100 and 200 volts, and with 60 Hertz as the standard frequency. If it is technologically necessary, power may be supplied in AC, single-phase two-wire, at a standard voltage of 200 volts, or in AC, three-phase three-wire, at a standard voltage of 200 volts.

#### (C) Contract current

- (a) The contract current shall either be 10, 15, 20, 30, 40, 50 or 60 amperes, as determined upon the customer's request.
- (b) KYEPCO installs the current limiter and other appropriate devices according to the contract current (hereafter referred to as "current limiter, etc."). However, KYEPCO may decide against the installation in cases where there is no possibility that the maximum current will exceed the contract current because, for example, a current limiting device has already been installed by the customer.

## (D) Net charge for prompt payment

The net charge for prompt payment is the sum total of the demand charge and the energy charge. However, if the average fuel price calculated pursuant to (1) (A) of Schedule 1 (Fuel Cost Adjustment) is lower than ¥18,300, the fuel cost adjustment amount as calculated pursuant to (1) (D) of Schedule 1 (Fuel Cost Adjustment) shall be subtracted from the energy charge. If the average fuel price calculated pursuant to (1) (A) of Schedule 1 (Fuel Cost Adjustment) is higher than ¥20,100, the fuel cost adjustment amount calculated pursuant to (1) (D) of Schedule 1 (Fuel Cost Adjustment) shall be added to the energy charge.

## (a) Demand charge

The demand charge per month is shown below. However, the charge for any one month during which no electricity is consumed shall be billed at half the rate.

10-ampere contract current	¥283.50
15-ampere contract current	¥425.25

20-ampere contract current	¥567.00
30-ampere contract current	¥850.50
40-ampere contract current	¥1,134.00
50-ampere contract current	¥1,417.50
60-ampere contract current	¥1,701.00

## (b) Energy charge

The energy charge shall be determined according to the amount of energy consumed during the billing month.

Per kWh up to the first 120 kWh	¥15.50
Per kWh over 120 kWh up to 300 kWh	¥19.74
Per kWh over 300 kWh	¥21.12

## (c) Minimum monthly charge

If the sum of the demand charge and energy charge determined according to (a) and (b) above is lower than the amount given below, the net charge for prompt payment for the billing month will be the amount below.

Per contract	¥294.00
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## (3) Residential Lighting C

## (A) Application

This contract category is applicable to customers utilizing lamps and/or small-scale appliances when both of the following conditions are satisfied:

- (a) The contract capacity is 6 kilovolt-amperes or more and, in principle, less than 50 kilovolt-amperes.
- (b) The service contract for a customer's premises for electricity use also covers Low Voltage Power, and the sum total of the contract capacity and contract power (in this case, one (1) kilovolt-ampere is considered as one (1) kilowatt) is less than fifty (50) kilowatts.

However, if the contract for a customer's premises also covers Low Voltage Power and the customer so requests, Residential Lighting C may apply to a case that satisfies the condition in (a) even when the sum total of the contract current and contract power described in (b) is fifty (50) kilowatts or more, provided that KYEPCO considers supply at low voltage to be appropriate technically and economically based on the status of the customer's electricity consumption and the condition of KYEPCO's supply facilities. In such case, KYEPCO

may install supply facilities, such as transformers, at the customer's site or building.

## (B) Power supply method, supply voltage and frequency

Power is supplied in AC, single-phase three-wire, at a standard voltage of 100 and 200 volts, and with 60 Hertz as the standard frequency. However, if special technological reasons or any circumstances of KYEPCO's supply facilities so require, power may be supplied in AC, single-phase two-wire, at a standard voltage of 100 or 200 volts or in AC, three-phase three-wire, at a standard voltage of 200 volts.

## (C) Contract load equipment

The customer is required to define the contract load equipment in advance.

## (D) Contract capacity

(a) The contract capacity shall be a value obtained by multiplying the total capacity, which is expressed in input capacity, of the contract load equipment by the percentage factors listed below. If the ratings are expressed in output capacity, the input capacity must be obtained for each item of contract load equipment by applying the conversion rates in Schedule 3 (Converted Input Capacity of Load Equipment). However, under special circumstances, such as a discrepancy between the number of outlets and electrical appliances, the total capacity shall be determined according to Schedule 2 (Calculation of Contract Load Equipment Total Capacity).

First 6 kilovolt-amperes	95%
Next 14 kilovolt-amperes	85%
Next 30 kilovolt-amperes	75%
Over 50 kilovolt-amperes	65%

(b) If the customer makes a request to determine the contract capacity based on the contract main circuit breaker, the contract capacity shall be the value obtained pursuant to (1) of Schedule 6 (Method of Calculating Contract Power and Others) based on the rated current of the contract main circuit breaker notwithstanding (a) above. In this case, the customer is required to specify the contract main circuit breaker in advance.

Further, KYEPCO shall confirm, as necessary, the level of the current that such contract main circuit breaker can limit.

#### (E) Net charge for prompt payment

The net charge for prompt payment is the sum total of the demand charge and the energy charge. However, if the average fuel price calculated pursuant to (1) (A) of Schedule 1 (Fuel

Cost Adjustment) is lower than ¥18,300, the fuel cost adjustment amount as calculated pursuant to (1) (D) of Schedule 1 (Fuel Cost Adjustment) shall be subtracted from the energy charge. If the average fuel price calculated pursuant to (1) (A) of Schedule 1 (Fuel Cost Adjustment) is higher than ¥20,100, the fuel cost adjustment amount as calculated by (1) (D) of Schedule 1 (Fuel Cost Adjustment) shall be added to the energy charge.

#### (a) Demand charge

The demand charge per month is shown below. However, the charge for any one month during which no electricity is consumed shall be billed at half the rate.

Per kilovolt-ampere contract capacity ¥23
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## (b) Energy charge

The energy charge shall be determined according to the amount of energy consumed during the billing month.

Per kWh up to first 120 kWh	¥15.50
Per kWh over 120 kWh up to 300 kWh	¥19.74
Per kWh over 300 kWh, for every kWh	¥21.12

## 18. Temporary Lighting Service

#### (1) Temporary Lighting A

## (A) Application

This contract category is applicable to customers utilizing lamps and/or small-scale appliances when the contract use period is less than one (1) year and the total capacity, which is expressed in input capacity, is three (3) kilovolt-amperes or less. If the ratings are expressed in output capacity, the input capacity must be obtained for each item of contract load equipment by applying the conversion rates in Schedule 3 (Converted Input Capacity of Load Equipment). However, this service is not applicable for use during certain set periods each year.

## (B) Power supply method, supply voltage and frequency

Power is supplied in AC, single-phase two-wire, at a standard voltage of 100 volts or AC, single-phase three-wire, at a standard voltage of 100 and 200 volts and with 60 Hertz as the standard frequency. If it is technologically necessary, power may be supplied in AC, single-phase two-wire, at a standard voltage of 200 volts, or AC, three-phase three-wire, at a standard voltage of 200 volts.

## (C) Net charge for prompt payment

The net charge for prompt payment is determined by the total capacity of contract load

equipment, which is expressed in input capacity, as given below. If the ratings are expressed in output capacity, the input capacity must be obtained for each item of contract load equipment by applying the conversion rates in Schedule 3 (Converted Input Capacity of Load Equipment). However, if the average fuel price calculated pursuant to (1) (A) of Schedule 1 (Fuel Cost Adjustment) is lower than ¥18,300, the fuel cost adjustment amount as calculated pursuant to (1) (D) of Schedule 1 (Fuel Cost Adjustment) shall be subtracted from such determined amount. If the average fuel price calculated pursuant to (1) (A) of Schedule 1 (Fuel Cost Adjustment) is higher than ¥20,100, the fuel cost adjustment amount as calculated pursuant to (1) (D) of Schedule 1 (Fuel Cost Adjustment) shall be added to such determined amount.

Total capacity up to 50 volt-amperes	¥5.72
Total capacity over 50 volt-amperes and up to 100 volt-amperes	¥11.44
Total capacity over 100 volt-amperes and up to 500 volt-amperes, per 100 volt-amperes	
Total capacity over 500 volt-amperes and up to one kilovolt-ampere	¥114.45
Total capacity over one kilovolt-ampere and up to 3 kilovolt-amperes, per kilovolt-ampere	

## (D) Others

- (a) KYEPCO does not install permanent supply facilities for this service, in principle.
- (b) If a customer requests continuous use of the service after the contract use period, and if the time from the day after the contract use period to the expiration day of the new contract use period is less than one (1) year, Temporary Lighting A shall apply.
- (c) Other provisions shall conform to those for Flat-Rate Lighting unless otherwise stated.

## (2) Temporary Lighting B

## (A) Application

This contract category is applicable to customers utilizing lamps and/or small-scale appliances when the contract use period is less than one (1) year and the contract current is within 40 amperes or more and 60 amperes or less. However, this service is not applicable for use during certain set periods each year.

## (B) Contract current

(a) The contract current shall either be 40, 50 or 60 amperes as determined upon the customer's request.

(b) KYEPCO installs the current limiter, etc., according to the contract current. However, KYEPCO may decide against the installation in cases where there is no possibility that the maximum current will exceed the contract current because, for example, a current limiting device has already been installed by the customer.

## (C) Net charge for prompt payment

The net charge for prompt payment is the sum total of the demand charge and the energy charge. However, if the average fuel price calculated pursuant to (1) (A) of Schedule 1 (Fuel Cost Adjustment) is lower than ¥18,300, the fuel cost adjustment amount calculated pursuant to (1) (D) of Schedule 1 (Fuel Cost Adjustment) shall be subtracted from the energy charge. If the average fuel price calculated pursuant to (1) (A) of Schedule 1 (Fuel Cost Adjustment) is higher than ¥20,100, the fuel cost adjustment amount calculated pursuant to (1) (D) of Schedule 1 (Fuel Cost Adjustment) shall be added to the energy charge.

## (a) Demand charge

The demand charge per month is shown below. However, the charge for any one month during which no electricity is consumed shall be billed at half the rate.

Per 10-ampere contract current	¥315.00
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#### (b) Energy charge

The energy charge shall be determined according to the amount of energy consumed during the billing month.

Per kWh	¥23.68
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## (D) Others

- (a) KYEPCO does not install permanent supply facilities for this service, in principle.
- (b) In a case where the customer requests continuous use of the service after the contract use period, and if the time from the day after the contract use period to the expiration day of the new contract use period is less than one (1) year, Temporary Lighting B shall apply.
- (c) Other provisions shall conform to those for Residential Lighting B unless otherwise stated.

## (3) Temporary Lighting C

## (A) Application

This contract category is applicable to customers utilizing lamps and/or small-scale appliances when the contract use period is less than one year and the contract capacity is 6 kilovolt-amperes or more and, in principle, less than 50 kilovolt-amperes. However, this service is not applicable for use during certain set periods each year.

## (B) Net charge for prompt payment

The net charge for prompt payment is the sum total of the demand charge and the energy charge. However, if the average fuel price calculated pursuant to (1) (A) of Schedule 1 (Fuel Cost Adjustment) is lower than ¥18,300, the fuel cost adjustment amount calculated pursuant to (1) (D) of Schedule 1 (Fuel Cost Adjustment) shall be subtracted from the energy charge. If the average fuel price calculated pursuant to (1) (A) of Schedule 1 (Fuel Cost Adjustment) is higher than ¥20,100, the fuel cost adjustment amount calculated pursuant to (1) (D) of Schedule 1 (Fuel Cost Adjustment) shall be added to the energy charge.

## (a) Demand charge

The demand charge per month is shown below. However, the charge for any one month during which no electricity is consumed shall be billed at half the rate.

Per kilovolt-ampere contract capacity	¥315.00
y	

## (b) Energy charge

The energy charge shall be determined according to the amount of energy consumed during the billing month.

Per kWh	¥23.68
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#### (C) Others

- (a) KYEPCO does not install permanent supply facilities for this service, in principle.
- (b) If a customer requests continuous use of the service after the contract use period, and if the time from the day after the contract use period to the expiration day of the new contract use period is less than one (1) year, Temporary Lighting C shall apply.
- (c) Other provisions shall conform to those for Residential Lighting C unless otherwise stated.

## 19. Public Street Lighting Service

## (1) Public Street Lighting A

## (A) Application

This contract category is applicable to customers utilizing lamps or lamps for fire alarms, fire hydrants, traffic signals, water and air navigation and so forth and/or small-scale appliances installed on roads or bridges or in parks and other public places for illumination purposes bridges or in parks and other public places for lighting (hereinafter referred to as "public street lights") when the total capacity, which is expressed in input capacity, is less than one (1) kilovolt-ampere. If the ratings are expressed in output capacity, the input capacity must be obtained for each item of contract load equipment by applying the conversion rates in

Schedule 3 (Converted Input Capacity of Load Equipment). However, the provisions of Public Street Lighting B may be applicable in a case of continued service during the daytime by mutual agreement between the customer and KYEPCO.

## (B) Net charge for prompt payment

The net charge for prompt payment shall be the sum total of the customer charge, the lamp charge and the small-scale appliance charge. However, if the average fuel price calculated pursuant to (1) (A) of Schedule 1 (Fuel Cost Adjustment) is lower than ¥18,300, the fuel cost adjustment amount calculated pursuant to (1) (D) of Schedule 1 (Fuel Cost Adjustment) shall be subtracted from the lamp charge and/or small-scale appliance charge. If the average fuel price calculated pursuant to (1) (A) of Schedule 1 (Fuel Cost Adjustment) is higher than ¥20,100, the fuel cost adjustment amount calculated pursuant to (1) (D) of Schedule 1 (Fuel Cost Adjustment) shall be added to the lamp charge and/or small-scale appliance charge.

## (a) Customer charge

The customer charge per month is shown below.

Per contract	¥47.25
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## (b) Lamp charge

a. The lamp charge per month shall be determined for each item of contract load equipment as shown below.

Per lamp up to 20 watts	¥102.90
Per lamp over 20 and up to 40 watts	¥165.90
Per lamp over 40 and up to 60 watts	¥228.90
Per lamp over 60 and up to 100 watts	¥354.90
Per lamp over 100 watts, for every 100 watts	¥354.90

- b. The lamp charge is applicable to the total capacity, which is expressed in input capacity, of all the neon tube lamps, fluorescent lamps, mercury lamps, etc., including necessary accessories, where one (1) volt-ampere of capacity is counted as one (1) watt. If the ratings are expressed in output capacity, the input capacity must be obtained by applying the conversion rates in Schedule 3 (Converted Input Capacity of Load Equipment).
- c. The lamp charge is applicable to the total capacity, which is expressed in input capacity, of the fluorescent lamps with multiple bulbs where one (1) volt-ampere of capacity is counted as one (1) watt. If the ratings are expressed in output capacity, the input capacity must be obtained by applying the conversion rates in Schedule 3 (Converted Input Capacity of Load Equipment).

## (c) Small-scale appliance charge

The small-scale appliance charge per month shall be determined for each unit of contract load equipment as given below according to the capacity, which is expressed in input capacity; if the ratings are expressed in output capacity, the input capacity must be obtained by applying the conversion rates in Schedule 3 (Converted Input Capacity of Load Equipment).

Per appliance of up to 50 volt-amperes	¥182.70
Per appliance over 50 and up to 100 volt-amperes	¥261.44
Per appliance over 100 volt-amperes, for every 50 volt-amperes	¥130.72

#### (C) Others

- (a) If advertising illumination is used, the distribution facilities shall be installed separately from those for public street lights, and a supply contract shall be entered into for each service. However, Public Street Lighting A may apply on a collective basis, provided that KYEPCO considers it to be technically and economically appropriate to supply electricity collectively.
- (b) Other provisions shall conform to those for Flat-Rate Lighting unless otherwise stated.

## (2) Public Street Lighting B

#### (A) Application

This contract category is applicable to customers utilizing public street lights when both of the following conditions are satisfied:

- (a) The contract capacity is one (1) kilovolt-ampere or more and, in principle, less than 50 kilovolt-amperes.
- (b) Public Street Lighting A cannot be applied.
- (B) Power supply method, supply voltage and frequency

Power is supplied in AC, single-phase two-wire, at a standard voltage of 100 volts, or in AC, single-phase three-wire, at a standard voltage of 100 and 200 volts, and with 60 Hertz as the standard frequency. If it is technologically necessary, electricity may be supplied in AC, single-phase two-wire, at a standard voltage of 200 volts, or in AC, three-phase three-wire, at a standard voltage of 200 volts.

#### (C) Contract capacity

The contract capacity shall be the total capacity, which is expressed in input capacity, of the contract load equipment. If the ratings are expressed in output capacity, the input capacity must be obtained by for each item of contract load equipment applying the conversion rates in Schedule 3 (Converted Input Capacity of Load Equipment). However, if the total capacity of

the contract load equipment is less than one (1) kilovolt-ampere, the contract capacity shall be deemed as one (1) kilovolt-ampere.

## (D) Net charge for prompt payment

The net charge for prompt payment is the sum total of the demand charge and the energy charge. However, if the average fuel price calculated pursuant to (1) (A) of Schedule 1 (Fuel Cost Adjustment) is lower than ¥18,300, the fuel cost adjustment amount calculated pursuant to (1) (D) of Schedule 1 (Fuel Cost Adjustment) shall be subtracted from the energy charge. If the average fuel price calculated pursuant to (1) (A) of Schedule 1 (Fuel Cost Adjustment) is higher than ¥20,100, the fuel cost adjustment amount calculated pursuant to (1) (D) of Schedule 1 (Fuel Cost Adjustment) shall be added to the energy charge.

## (a) Demand charge

The demand charge per month is shown below. However, the charge for any one month during which no electricity is consumed shall be billed at half the rate.

Per kilovolt-ampere contract capacity	¥257.25
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## (b) Energy charge

The energy charge shall be determined according to the amount of energy consumed during the billing month.

Per kWh	¥13.95
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## (c) Minimum monthly charge

If the sum of the demand charge and energy charge determined according to (a) and (b) above is lower than the amount given below, the net charge for prompt payment for the billing month shall be the amount shown below.

Per contract	¥262.50
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## (E) Others

- (a) If advertising illumination is used, the distribution facilities shall be installed separately from those for public street lights, and a supply contract shall be entered into for each service. However, Public Street Lighting B may apply on a collective basis, provided that KYEPCO considers it to be technically and economically appropriate to supply electricity collectively.
- (b) Other provisions shall conform to those for Residential Lighting C unless otherwise stated.

## 20. Low Voltage Power Service

## (1) Application

This contract category is applicable to customers utilizing power appliances when both of the following conditions are satisfied:

- (A) The contract power is, in principle, less than 50 kilowatts.
- (B) The service contract for Low Voltage Power Service is entered into for a customer's premises together with Residential Lighting, and the sum total of either the contract current (in this case, ten (10) amperes are considered to be one (1) kilowatt) or the contract capacity (in this case, one (1) kilovolt-ampere is considered to be one (1) kilowatt) and the contract power is less than fifty (50) kilowatts. However, if the contract for a customer's premises also covers Residential Lighting and the customer so requests, it may be applied to a case that satisfies the condition in (A) above even when the sum total of either the contract current or contract capacity and the contract power described in (B) is fifty (50) kilowatts or more, provided that KYEPCO considers it to be technically and economically appropriate to supply power at low voltage based on the status of the customer's electricity consumption and the conditions of KYEPCO's supply facility. In such a case, KYEPCO may install supply facilities, such as transformers, at the customer's site or building.

## (2) Power Supply Method, Supply Voltage and Frequency

Power is supplied in AC, three-phase three-wire, at a standard voltage of 200 volts, and with 60 Hertz as the standard frequency. If it is technologically necessary, power may be supplied in AC, single-phase two-wire, at a standard voltage of 100 or 200 volts, or in AC single-phase three-wire, at a standard voltage of 100 and 200 volts.

## (3) Contract Load Equipment

The customer is required to define the contract load equipment in advance.

## (4) Contract Power

- (A) The contract power shall be obtained by totaling the input capacities of each item of contract load equipment as multiplied by the factors in (a) below, then again multiplied by the factors in (b). It should be noted that, if the ratings are expressed in output capacity or in another form, the input capacity shall be obtained by applying the conversion rates in Schedule 3 (Converted Input Capacity of Load Equipment). However, under special situations, including a case in which the power is used to test electrical appliances, the customer is required to install appropriate devices, such as circuit breakers, to limit the maximum current used in the circuit. Further, KYEPCO regards the capacity of such devices to be the input capacity of contract load equipment used in such circuit. In this case, such capacity shall be determined according to (2) of Schedule 6 (Method of Calculating Contract Power and Others) and shall not be multiplied by the factors in (b).
  - (a) Of contract load equipment items

In descending order from the largest input	Input capacity of first two items	100%
	Input capacity of next two items	95%
	Input capacity of all additional items	90%

## (b) Of the sum obtained by applying the appropriate factors in Table (a) above

First 6 kilowatts	100%
Next 14 kilowatts	90%
Next 30 kilowatts	80%
All additional kilowatts exceeding 50 kilowatts	70%

(B) If the customer makes a request to determine the contract power based on the contract main circuit breaker, notwithstanding (A) above, the contract capacity shall be the value pursuant to (2) of Schedule 6 (Method of Calculating Contract Power and Others) based on the rated current of the contract main circuit breaker. In this case, the customer is required specify the contract main circuit breaker in advance.

Further, KYEPCO shall confirm, as necessary, the level of current that such contract main circuit breaker can limit.

## (5) Net Charge for Prompt Payment

The net charge for prompt payment is the sum total of the demand charge and the energy charge. However, if the provision concerning power factor adjustment described in (C) below applies, the demand charge is either decreased or increased based on the power factor described in (C) below. Further, if the average fuel price calculated pursuant to (1) (A) of Schedule 1 (Fuel Cost Adjustment) is lower than ¥18,300, the fuel cost adjustment amount as calculated pursuant to (1) (D) of Schedule 1 (Fuel cost Adjustment) shall be subtracted from the energy charge. If the average fuel price calculated pursuant to (1) (A) of Schedule 1 (Fuel Cost Adjustment) is higher than ¥20,100, the fuel cost adjustment amount as calculated pursuant to (1) (D) of Schedule 1 (Fuel cost Adjustment) shall be added to the energy charge.

## (A) Demand charge

The demand charge per month is shown below. However, the charge for a contract power of 0.5 kilowatts shall be half the rate of the contract power for one (1) kilowatt. The charge for any one month during which no electricity is consumed shall be billed at half the rate.

Per kW of contract power	¥966.00
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## (B) Energy charge

The energy charge shall be determined according to the amount of energy consumed during the billing month. The summertime rate shall apply to energy consumed during summertime, and the rate for other seasons shall apply to energy consumed during such other seasons.

If a billing month includes days of both summertime and other seasons, the energy consumption for that billing month is divided proportionally based on the number of days of summertime and other seasons, and each portion thus divided is deemed as the corresponding energy consumption for the respective season.

	Summertime	Other seasons
Per kWh	¥13.03	¥11.84

## (C) Power factor adjustment

The demand charge shall be adjusted by five (5) percent in accordance with the value obtained by averaging the power factors of each electrical appliance with values weighted by the respective input value based on Schedule 4 (Weighted Average Power Factor Determination); if such weighted average is higher than eighty-five (85) percent (including a case in which the contract power is determined by (4) (B) above), the demand charge shall be decreased by five (5) percent, and if it is lower than eighty-five (85) percent, the demand charge shall be increased by five (5) percent. In this case, the power factor of electrical appliances shall be ninety (90) percent for electric appliances with phase-advanced capacitors having a capacity conforming to the criteria described in Schedule 5 (Criteria for Phase-advanced Capacitor Installation Capacity); the power factor shall be eighty (80) percent for appliances without such capacitors, and one hundred (100) percent for electric heating appliances.

The power factor for a month during which no electricity is consumed shall be deemed as eighty-five (85) percent.

#### (D) Others

When the service is received only for time sirens or alarm signal purposes, only the demand charge applies. In this case, the power factor is deemed as eighty-five (85) percent.

#### (6) Others

The use of lamps and/or small-scale appliances through a transformer or through power generating or similar facilities is not permitted.

## 21. Temporary Power Service

#### (1) Application

This contract category is applicable to customers utilizing power appliances when the contract use period is less than one (1) year and the contract power is, in principle, less than 50 kilowatts. However, this service is not applicable for use during certain set periods each year.

#### (2) Contract Power

The contract power shall be determined according to the provisions for Low Voltage Power.

## (3) Net Charge for Prompt Payment

The provisions for the flat-rate system shall apply, in principle, to customers with a contract power of 5 kilowatts or less; those of the meter-rate system shall apply to customers with a contract power exceeding 5 kilowatts.

## (A) Flat-rate system

The net charge for prompt payment is shown below. However, the charge for a contract power of 0.5 kilowatts shall be half the rate of the contract power for one (1) kilowatt. Further, if the average fuel price calculated pursuant to (1) (A) of Schedule 1 (Fuel Cost Adjustment) is lower than ¥18,300, the fuel cost adjustment amount calculated pursuant to (1) (D) of Schedule 1 (Fuel Cost Adjustment) shall be subtracted from the net charge for prompt payment. If the average fuel price calculated pursuant to (1) (A) of Schedule 1 (Fuel Cost Adjustment) is higher than ¥20,100, the fuel cost adjustment amount calculated pursuant to (1) (D) of Schedule 1 (Fuel Cost Adjustment) shall be added to the net charge for prompt payment.

Per kW of contract power per day	¥166.95
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#### (B) Meter-rate system

For the net charge for prompt payment, an extra twenty (20) percent shall be added to the corresponding net charges for Low Voltage Power. However, if the average fuel price calculated pursuant to (1) (A) of Schedule 1 (Fuel Cost Adjustment) is lower than ¥18,300, the fuel cost adjustment amount calculated pursuant to (1) (D) of Schedule 1 (Fuel Cost Adjustment) shall be subtracted from the energy charge. If the average fuel price calculated pursuant to (1) (A) of Schedule 1 (Fuel Cost Adjustment) is higher than ¥20,100, the fuel cost adjustment amount calculated pursuant to (1) (D) of Schedule 1 (Fuel Cost Adjustment) shall be added to the energy charge.

## (C) Power factor adjustment

The power factor adjustment shall apply to the meter-rate system only, and in accordance with the provisions for Low Voltage Power.

## (4) Others

- (A) KYEPCO shall not install, in principle, permanent supply facilities for this service.
- (B) In a case where the customer requests continuous use of the service after the contract use period and the time from the day after the contract use period expires to the day of the expiration of the new contract use period is less than one (1) year, Temporary Power shall apply.
- (C) Other provisions shall conform to those for Low Voltage Power unless otherwise stated.

#### 22. Agricultural Power Service

(1) Agricultural Power A (for drainage of agricultural irrigation)

## (A) Application

This contract category is applicable to customers utilizing power appliances for the drainage of agricultural irrigation when the contract power is less than 50 kilowatts, in principle.

## (B) Contract power

The contract power shall be determined according to the provisions for Low Voltage Power.

## (C) Net charge for prompt payment

The net charge for prompt payment is the sum total of the demand charge and the energy charge. However, if the provision concerning the power factor adjustment described in (c) below applies, the demand charge is either decreased or increased based on the power factor described in (c) below. Further, if the average fuel price calculated pursuant to (1) (A) of Schedule 1 (Fuel Cost Adjustment) is lower than ¥18,300, the fuel cost adjustment amount calculated pursuant to (1) (D) of Schedule 1 (Fuel Cost Adjustment) shall be subtracted from the energy charge. If the average fuel price calculated pursuant to (1) (A) of Schedule 1 (Fuel Cost Adjustment) is higher than ¥20,100, the fuel cost adjustment amount calculated pursuant to (1) (D) of Schedule 1 (Fuel Cost Adjustment) shall be added to the energy charge.

No charges are billed for any period other than the contract use period.

## (a) Demand charge

The demand charge per month is shown below. However, the charge for a contract power of 0.5 kilowatts shall be half the rate of the contract power of one (1) kilowatt.

The charge for any one month during which no electricity is consumed shall be billed at half the rate. The total amount of the demand charge for any one-year period shall be in no case less than the minimum secured charge, which is the demand charge for two months during which electricity is consumed and shall be determined based on the maximum value of the contract power for the year.

Per kW of contract power ¥640.50
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## (b) Energy charge

The energy charge shall be determined according to the amount of energy consumed during the billing month. The summertime rate shall apply to energy consumed during summertime, and the rate for other seasons shall apply to energy consumed during other seasons.

If a billing month includes days of both summertime and other seasons, the energy consumption for that billing month is divided proportionally based on the number of days of summertime and other seasons, and each portion thus divided is deemed as the corresponding energy consumption for the respective season.

	Summertime	Other seasons
Per kWh	¥9.39	¥8.54

#### (c) Power factor adjustment

The power factor adjustment shall be made in accordance with the provisions for Low Voltage Power.

## (D) Others

- (a) If the customer requests to stop the service during the contract use period, the contract use period shall be changed.
- (b) If the customer stops the service, KYEPCO may take necessary measures, such as disconnecting service lines.
- (c) Other provisions shall conform to those for Low Voltage Power unless otherwise stated.

## (2) Agricultural Power B (for grain thrashing)

#### (A) Application

This contract category is applicable to customers utilizing power appliances for grain thrashing for a certain period of time lasting 30 continuous days or more annually.

## (B) Net charge for prompt payment

The provisions for the flat-rate system shall apply, in principle, to customers with a contract power of 5 kilowatts or less; the meter-rate system shall apply to those with a contract power exceeding 5 kilowatts.

#### (a) Flat-rate system

The net charge for prompt payment per year shall be shown below. However, if the average fuel price calculated pursuant to (1) (A) of Schedule 1 (Fuel Cost Adjustment) is lower than ¥18,300, the fuel cost adjustment amount calculated pursuant to (1) (D) of

Schedule 1 (Fuel Cost Adjustment) shall be subtracted from the flat-rate net charge for prompt payment. If the average fuel price calculated pursuant to (1) (A) of Schedule 1 (Fuel Cost Adjustment) is higher than ¥20,100, the fuel cost adjustment amount calculated pursuant to (1) (D) of Schedule 1 (Fuel Cost Adjustment) shall be added to the flat-rate net charge for prompt payment.

No charges are billed for any period other than the contract use period. The total amount of the net charge for prompt payment for any one-year period shall be in no case less than the minimum secured charge, which is the net charge for prompt payment for the first 30 days and shall be determined based on the maximum value of the contract power for the year.

Contract power Contract use period	0.5 kW	1 kW	2 kW	3 kW	4 kW	5 kW
First 30 days	¥3,449.25	¥4,809.00	¥7,528.50	¥10,248.00	¥12,967.50	¥15,687.00
Per day after first 30 days	¥25.04	¥50.08	¥100.17	¥150.25	¥200.34	¥250.42

## (b) Meter-rate system

For the net charges for prompt payment, an extra ten (10) percent shall be added to the corresponding net charges for Low Voltage Power for a month during which electricity is consumed. However, if the average fuel price calculated pursuant to (1) (A) of Schedule 1 (Fuel Cost Adjustment) is lower than ¥18,300, the fuel cost adjustment amount calculated as pursuant to (1) (D) of Schedule 1 (Fuel Cost Adjustment) shall be subtracted from the energy charge. If the average fuel price calculated pursuant to (1) (A) of Schedule 1 (Fuel Cost Adjustment) is higher than ¥20,100, the fuel cost adjustment amount calculated pursuant to (1) (D) of Schedule 1 (Fuel Cost Adjustment) shall be added to the energy charge.

No charges are billed for any period other than the contract use period. The total amount of the demand charge for any one-year period shall be in no case less than the minimum secured charge, which is the demand charge for two months and shall be determined based on the maximum value of the contact power for the year.

## (c) Power factor adjustment

The power factor adjustment shall apply only to the meter-rate system, as pursuant to that

for Low Voltage Power.

## (C) Others

- (a) If the customer requests to stop the service during the contract use period, the contract use period shall be changed, provided that the number of days the customer uses the service is 30 days or more.
- (b) If the customer stops the service, KYEPCO may take necessary measures, such as disconnecting service lines.
- (c) Other provisions shall conform to those for Low Voltage Power unless otherwise stated.

## IV. BILLING AND PAYMENT

## 23. Start of Rate Application

The rate applies on and after the date when the supply service commences. However, in a case of a customer for whom a written service contract is prepared in advance, the rate shall apply, in principle, from the service commencement date specified therein, except in a case where a delay of commencement has been requested prior to the commencement of any preliminary work for the service or if the service cannot be started due to reasons not attributable to the customer.

## 24. Meter Reading Day

The meter reading day shall be either the day when the actual meter reading is conducted or the date when the reading is deemed to have been conducted, in accordance with the following provisions:

- (1) Meter reading shall be conducted monthly on a day specified (while considering the preset meter reading day and holidays) for each customer, who will have been notified in advance of the meter reading day. However, the meter reading may be conducted on days other than the meter reading day notified by KYEPCO if required due to emergencies or any other inevitable cause.
- (2) If the meter reading is not conducted due to the customer's absence or another reason, the meter reading shall be deemed to have been conducted on the date the meter reader visited the customer's premises for the reading.
- (3) Notwithstanding (1) above, KYEPCO may not conduct meter reading each month:
  - (A) if the time period from the commencement of the supply to the meter reading day immediately after the commencement is short; or
  - (B) if there is a special reason other than the above and prior agreement from the customer has been obtained.
- (4) If no meter reading is conducted as in (3) (A), the meter reading is deemed to have been conducted on the meter reading day which occurs immediately after such commencement of supply in the meter reading area to which the customer belongs.
- (5) If no meter reading is conducted as in (3) (B), the meter reading is deemed to have been conducted for such month on the day that KYEPCO notified the customer in advance.

#### 25. Billing Period

(1) The period for which the electric charge is calculated shall be the period from the meter reading day of the preceding month to the day before the meter reading day of the current month (hereinafter referred to as the "meter reading period"). However, the billing period in cases of the commencement of supply service or termination of the electric service contract shall be the

- period from the day of electricity supply commencement to the day before the meter reading day immediately after such commencement or the period from the meter reading day immediately before termination of the electric service contract to the day before the day of termination of the said contract, respectively.
- (2) The billing period for the flat-rate system or the rate system in the case of (7) of 26 (Measurement of Energy Consumption) shall be shown in (1) above. In this case, the meter reading day in (1) shall be the meter reading day of the meter reading area to which the customer belongs. However, the billing period for Temporary Light, Temporary Power and Agricultural Power B may be the period from the commencement of the contract use to the day before the corresponding date, which corresponds to the day contract use started, of the following month, or from the corresponding date of each month to the day before the corresponding date of the next month.

## 26. Measurement of Energy Consumption

- (1) The measurement of energy consumption shall be based on the reading of the watt-hour meter, and the energy consumption for the billing period shall be determined using the difference between the reading of the watt-hour meter on the meter reading day (or the day of the termination, in principle, if the supply contract is terminated) and the reading on the previous meter reading day (or the day of commencement if the supply has commenced under a new contract) except for the following cases as well as the cases described in (5) and (6) below. If the watt-hour meter has multiplying factor settings, the values of such readings shall be multiplied by the relevant factor.
  - (A) In the case of (2) of 24 (Meter Reading Day), the energy consumption shall be based on the result of the previous meter reading and shall be subject to adjustment from the one-month average (an average based on the number of the months) from the meter reading that immediately follows. However, if the provisions in (1) (A), (B) or (C) of 27 (Billing) are applicable, the settlement shall be made based on the amount obtained by dividing proportionally the result of the following meter reading by the ratio of the values obtained by multiplying the number of days to be separated for the purpose of billing, by the contract current, contract capacity or contract power.
  - (B) In the case of (4) of 24 (Meter Reading Day), the energy consumption for the period from the commencement of the supply service to the day before the second meter reading day after such commencement shall be divided proportionally according to the number of days in the period from supply service commencement to the day before the meter reading day immediately after such commencement and the number of days in the period from the meter reading day immediately after such commencement to the day before such second meter

reading day, and the amount thus obtained shall be the energy consumption for the respective period. However, if the provisions in (1) (A), (B) or (C) of 27 (Billing) are applicable, the amount obtained by dividing proportionally the result of the following meter reading by the ratio of the values obtained by multiplying the number of days to be separated for the purpose of billing by the value of the contract current, contract capacity or contract power shall be the energy consumption for the respective billing period.

- (C) In the case of (5) of 24 (Meter Reading Day), the energy consumption shall be, in principle, the one-month average gained from the result of the previous meter reading and shall be subject to adjustment by the one-month average gained from the result of the meter reading that immediately follows. However, if the provisions in (1) (A), (B) or (C) of 27 (Billing) are applicable, the settlement shall be made based on the amount obtained by dividing proportionally the result of the following meter reading by the ratio of the values obtained by multiplying the number of days to be separated for the purpose of billing, by the contract current, contract capacity or contract power.
- (2) The reading of the meter shall be made as stipulated below:
  - (A) The reading shall be the value of the scale indicated by the point of the meter. However, if the indication point is between markings, it shall be the value of the smaller marking.
  - (B) The value shall be an integer if the meter has no multiplying factor.
  - (C) If the meter has a multiplying factor, the value shall include the smallest digit.
- (3) The energy consumed shall be measured at the same voltage as the supply voltage.
- (4) KYEPCO shall promptly notify the customer of the results of the measurement.
- (5) If the meter is replaced, the energy consumption for the billing period shall be the sum total of the energy consumption obtained with each of the removed and newly installed meters according to the provisions in (1) above, except for the case in (6) below.
- (6) If accurate measurement of the energy consumption was not made for reasons such as the failure of the meter, the energy consumption for such billing period shall be determined by an agreement between the customer and KYEPCO based on Schedule 7 (Agreement Regarding Energy Consumption and Other Items).
- (7) For a customer who receives the service with the meter-rate system, if the meter is not installed for special reasons, such as difficulty in conducting the meter reading, the customer's energy consumption for the billing period shall be determined by agreement between the customer and KYEPCO based on Schedule 7 (Agreement Regarding Energy Consumption and Other Items).

## 27. Billing

(1) The electric charge shall be calculated for a period of one billing month except in the following cases:

- (A) Electric supply service is started, resumed, stopped, or suspended, or when a service contract is terminated.
- (B) There are rate changes due to a change in the contract categories, contract load equipment, contract current, contract capacity, contract power, power factor or others.
- (C) The situation in (1) of 25 (Billing Period) exists, and the actual number of days of such a meter reading period is five (5) days more or less than the number of days in the calendar month to which the preset meter reading day corresponding to the beginning of such meter reading period belongs.
- (2) The electric charge shall be calculated by applying the corresponding electricity rates of the respective contract category to each supply contract.

#### 28. Per-Diem Calculation

- (1) The net charge for prompt payment shall be calculated pursuant to the following in the cases described in (A), (B) or (C) of (1) of 27 (Billing):
  - (A) The demand charge, minimum charge, minimum monthly charge or flat-rate charge shall be determined by a per-diem calculation pursuant to (1) (A) of Schedule 8 (Basic Formula for Per-Diem Calculation).
  - (B) The energy charge shall be determined according to the energy consumption for each period subject to a per-diem calculation pursuant to (1) (C) of Schedule 8 (Basic Formula for Per-Diem Calculation). However, regarding the rate block for the energy consumption in the case of Residential Lighting, (1) (B) of Schedule 8 (Basic Formula for Per-Diem Calculation) shall apply to the per-diem calculation.
  - (C) If it is difficult to apply the provisions of (A) and (B) above, the per-diem calculation shall be done in a similar manner.
- (2) If the per-diem calculation applies to the case described in (1) (A) of 27 (Billing), days of commencement or resumption shall be included in the calculation, and any days of stoppage, suspension or termination shall be excluded. If the per-diem calculation applies to the case described in (1) (B) of 27 (Billing), rates after the changes shall apply on and from the day of such changes.
- (3) If there is a change in the contract load equipment that would result in the change of the power factor, the demand charge shall be determined by per-diem calculation pursuant to (1) (A) of Schedule 8 (Basic Formula for Per-Diem Calculation) based on the power factor before and after such change.
- (4) For per-diem calculation, KYEPCO shall confirm the measurements each time as necessary.

# 29. Payment Obligation and Payment Period

- (1) The customer's payment obligation for the electric charges shall be incurred on the following days:
  - (A) For the meter-rate system, payment obligation shall be incurred on the meter reading day. However, for the purpose of determining the charges in (4) of 24 (Meter Reading Day) or the adjustment amounts in (1) (A) or (C) of 26 (Measurement of Energy Consumption), obligation shall be incurred on the following meter reading day, and for the case described in (6) of 26 (Measurement of Energy Consumption), obligation shall be incurred on the day when the energy consumption was determined by agreement for the billing period.
    - For the case described in (7) of 26 (Measurement of Energy Consumption), obligation shall be incurred on the meter reading day of the meter reading area to which the customer belongs or the commencement day of the contract use period and the corresponding days of each month.
  - (B) For the flat-rate system, payment obligation shall be incurred on the meter reading day of the meter reading area to which the customer belongs. However, for Temporary Lighting, Temporary Power and Agricultural Power B, obligation may be incurred on the day the contract use started and the corresponding day of each month.
  - (C) Payment obligation shall be incurred on the day described in (A) or (B) above for the last month of such payment period for cases in (7) of 30 (Payment of Electric Charges and Other Items).
  - (D) Payment obligation shall be incurred on the termination day in a case of terminating a supply service contract. However, for the meter-rate system, if the measurement is verified due to a special situation on and after the date of termination, obligation shall be incurred on the day of such verification.
  - (E) If the total demand charge for a year (total of the net charges for prompt payment for a customer with the flat-rate system under Agricultural Power B) for a customer under the Agricultural Power is less than the minimum secured charge, payment obligation shall be incurred on the meter reading day of the meter reading area to which the customer belongs, immediately after the day the amount due is determined.
- (2) The customer is required to pay the electric charges within fifty (50) days from the day after incurrence of the payment obligation (hereinafter referred to as "payment period"). However, for cases in areas specified by KYEPCO and when customers are billed after the following meter reading day, the payment period shall be a 50-day period from the day after the following meter reading day.

If the last day of the payment period (hereinafter referred to as "last payment day") falls on a Sunday or holiday, then such last payment day shall be postponed until the following day. If

such postponed last payment day is also a Sunday or holiday, it shall be postponed to the day after such day.

- (3) In the case of (4) of 30 (Payment of Electric Charges and Other Items), the last payment day for the amount which is added to the electric charge of the following month or after shall be, notwithstanding the provisions of (2) above, the last payment day for the month to which such amount is added, except in a case where the service contract ceases.
- (4) If a customer who entered a contract for more than one customer's premises for electric use, such as that for public street lighting, and wishes to pay the electric charges arising from each supply contract collectively on a continuous basis, the customer may do so by agreement with KYEPCO. In this case, the last payment day for each electric charge shall be, notwithstanding the provisions of (2) above, the last payment day of the charge for which the incurrence of payment obligation is the last in the month.

In such cases, the last day of the prompt payment period for each electric charge shall be, notwithstanding the provisions of (3) of 15 (Rates), the last day of the prompt payment period of the charge for which the incurrence of payment obligation is the last in the month.

# 30. Payment of Electric Charges and Others

(1) The customer is required to pay the electric charges each month and the contribution to construction costs and other amounts as incurred at either KYEPCO offices where charges and other payments are collected or financial institutions designated by KYEPCO.

If electric charges are paid through the financial institutions designated by KYEPCO, it shall be done according to the following provisions:

- (A) If the customer wishes to pay electric charges monthly by transferring funds from an account to the account of KYEPCO on a continuous basis, the customer shall apply in advance to KYEPCO by filling out a form provided by KYEPCO.
- (B) If the customer pays electric charges through financial institutions designated by KYEPCO, the customer shall do so in the manner prescribed by KYEPCO.
- (C) If the customer pays electric charges through financial institutions designated by KYEPCO by having any of the credit companies designated by KYEPCO pay such electric charges monthly and continuously based on contracts the customer enters with such credit company, the customer shall submit application to do so in advance by filling in a form provided by KYEPCO.
- (2) If the customer pays electric charges as described in (1) (A), (B) or (C) above, payment to

KYEPCO shall be deemed to have been made when any of the following occurs:

- (A) If the customer makes payment as described in (1) (A) above, the payment shall be deemed to have been made when such electric charges have been transferred from the account specified by the customer.
- (B) If the customer makes payment as described in (1) (B) above, the payment shall be deemed to have been made when the payment is made to the said financial institution.
- (C) If the customer makes payment as described in (1) (C) above, the payment shall be deemed to have been made when such credit company pays the amount to financial institutions, etc., designated by KYEPCO.
- (3) Notwithstanding the provisions of (1) above, KYEPCO may request that the customer pay the electric charge though financial institutions specified by a servicer under the Special Measures Law Concerning the Claims Servicing Business (hereinafter referred to as "servicer") appointed by KYEPCO in a manner specified by such servicer. In such cases, notwithstanding the provisions of (2) above, the payment shall be deemed to have been made when the payment is made to the financial institution specified by such servicer.
- (4) If the customer pays the electric charges after the expiration of the prompt payment period, KYEPCO will add to the electric charges of the following billing month the amount of the difference between the net charge for late payment and the net charge for prompt payment.
- (5) The customer is required to pay the electric charges in the order that payment obligations are incurred.
- (6) The customer is required to pay the electric charges for the period from the day the supply services commences to the day before the meter reading day immediately after such supply service commencement day, together with the electric charges for the period from the meter reading day immediately after the supply commencement day to the day before the following meter reading day, in the case of (4) of 24 (Meter Reading Day).
- (7) If KYEPCO's special circumstances so require, KYEPCO may require the customer, notwithstanding (1), to pay the electric charges for each payment period defined by KYEPCO with prior consent of the customer.
- (8) KYEPCO may accept advance payment towards the electric charges if requested by the customer. Such advance payment shall not accrue interest.
- (9) For Temporary Light, Temporary Power or Agricultural Power, KYEPCO may request a deposit for the meter-rate system, or an advance payment for the flat-rate system. In such cases, a deposit or advance payment shall be made prior to the start of electric use.

The deposit or advance payment shall not, in principle, exceed an amount equivalent to three months of estimated electric charges. After the start of electricity use, the deposit or advance

payment shall be allocated to the payment of electricity charges in order. After allotment to electric charges, the balance, if any, shall be refunded to the customer.

Such advance payment or deposit shall not accrue interest.

# 31. Security Deposit

- (1) KYEPCO may request a security deposit from any customer that is in any of the following circumstances prior to the commencement or resumption of electric supply service, or as a condition for continuous electric supply. Such security deposit shall not exceed an amount equivalent to three months of estimated electric charges.
  - (A) The customer has had electric charge payments in arrears.
  - (B) The customer requests new service or an increase of the contract power and is in any of the following circumstances:
    - (a) The customer has electric charge payments from other supply contracts (including those already terminated) in arrears.
    - (b) The customer is expected to have electric charge payments in arrears.
- (2) The energy consumption, which constitutes a basis for the estimated monthly electric charge, shall be determined by taking into account the customer's load factor, operational conditions, and load factors seen among other customers with similar business requirements.
- (3) The period that KYEPCO will hold the security deposit for shall be for up to two (2) years. When requesting a security deposit under (4), the period that KYEPCO holds such security deposit shall be newly determined for up to two (2) years from that time.
- (4) If the contract is terminated or the customer has electric charges in arrears, KYEPCO may allocate the security deposit and interest thereof to the electric charges. In such a case, the interest shall be allotted first, then the security deposit, if there remains any amount still payable. The remaining security deposit and the interest thereon shall be refunded to the customer. KYEPCO may request that the customer re-deposit with KYEPCO the security deposit as defined in (1).
- (5) The security deposit with KYEPCO shall accrue interest as follows:
  - (A) The interest shall be a simple interest at a rate of 0.2 percent per annum, and any fraction of less than one (1) yen shall be disregarded.
  - (B) The period of interest accrual shall be the period from such deposit to the day before refunding or allotting such deposit. It should be noted that, if the security deposit is not refunded on the refund day as notified by KYEPCO in advance due to reasons attributable to the customer, no interest shall accrue even during the interest-accrual period defined above.
- (6) In a case of discontinuance of the electric supply service contract, KYEPCO shall refund to the customer the security deposit and the interest thereon, even if the service is discontinued within

the time period that KYEPCO may hold the security deposit.

## V. CONSUMPTION AND SUPPLY OF ELECTRICITY

#### 32. Maintenance of Proper Contract

KYEPCO may require the customer to promptly change or correct the service contract if the service contract is deemed inappropriate as compared with the state of the customer's electricity use.

# 33. Maintenance of Proper Power Factor

- (1) The customer is requested to maintain a power factor at the customer's premises of ninety (90) percent or more for lighting service or eighty-five (85) percent or more for other services.
- (2) If the customer is to install a phase-advanced capacitor, it shall be installed for each electric appliance. However, if it is to be installed for two or more electric appliances collectively due to unavoidable circumstances, the customer is required to prevent the power factor from leading at the time of light load by opening the phase-advanced capacitor.

Further, the phase-advanced capacitors shall be installed in accordance with the criteria set forth in Schedule 5 (Criteria for Phase-advanced Capacitor Installation Capacity).

# 34. Operations through Access to Customer's Premises

KYEPCO may enter the customer's sites or buildings with the customer's consent for the purposes of conducting the work listed below.

In such cases, the customer is requested to grant access to (a) KYEPCO employee(s) for the performance of such tasks unless there is a justifiable reason for denying entry. Upon the customer's request, the KYEPCO employee(s) will present their official company identification card(s).

- (1) Designing, installing, repairing or inspecting KYEPCO's supply facilities up to the delivery point or meters and other electric facilities at the customer's premises
- (2) Inspecting the customer's electric facilities and other work required as prescribed in 70 (Customer's Cooperation for Safety and Security)
- (3) Testing the customer's electric appliances, confirming or inspecting the customer's contract load equipment, contract main circuit breaker or other electric facilities, or verifying the uses of electricity required in order to prevent any misuse of electricity
- (4) Meter reading or verification of measurement results
- (5) Measures required as prescribed in 36 (Suspension of Supply), (1) of 46 (Discontinuance of the Contract), or 48 (Cancellation and Others)

(6) Other work necessary upon conclusion, alteration or termination of the electric service supply contract, or work necessary for the confirmation of the safety and security of KYEPCO's electric facilities in accordance with the Rules and Rates.

## 35. Customer's Cooperation Regarding Electricity Consumption

- (1) If a customer's use of the electric supply service causes or is likely to cause interference with the use of electricity by other customers or with the electric installations of KYEPCO and/or other electric utilities (judgment in this case shall be made at the point where the cause for such interference is observed most significantly) for any of the reasons listed below, such customer shall install, at the customer's expense, the necessary regulating or protective devices at the customer's premises and shall, whenever deemed particularly necessary, receive electricity from supply facilities modified or installed separately for exclusive use by such customer.
  - (A) There is a significant imbalance of loads between phases caused by the customer's load characteristics.
  - (B) There are significant fluctuations in voltage or frequency caused by the customer's load characteristics.
  - (C) There is a significant distortion in load wave caused by the customer's load characteristics.
  - (D) A significantly high frequency or higher harmonics develop.
  - (E) There is a case similar to those described in (A), (B), (C), or (D) above.
- (2) If the customer uses electricity by connecting the customer's own power generation facility to KYEPCO's supply facilities, the provisions of (1) above shall apply. Also, in such case, the customer may do so in a manner recognized as being technically appropriate in consideration of the status of KYEPCO's existing facilities and in accordance with the technical standards set forth by related laws and ordinances (hereinafter referred to as "technical standards") and other laws and ordinances.

## 36. Suspension of Supply

- (1) KYEPCO may suspend the supply of electricity to the customer under the following cases:
  - (A) Suspension is urgently required due to the presence of a danger or risk to safety or security for which the customer is liable.
  - (B) The customer causes severe losses for KYEPCO by deliberately damaging or destroying KYEPCO's electric facilities on the customer's premises.
  - (C) The customer connects electric facilities with the power line or service line of KYEPCO, thus violating the provisions of 55 (Connection of Service Line).
- (2) KYEPCO may suspend the supply of electricity and shall provide notice to that effect at least

five (5) days prior to the service suspension to the customer in the following cases:

- (A) The customer has electric charge payments in arrears
- (B) The customer has electric charge payments from other supply contracts (including those already terminated) in arrears.
- (C) The customer has financial obligations other than electric charges made payable in accordance with the Rules and Rates (including the security deposit, penalty for breach-of-contract, contribution to the construction costs or other financial obligations arising out of the Rules and Rates) in arrears.
- (3) KYEPCO may suspend the supply of electricity to a customer when, despite being warned by KYEPCO, the customer fails to correct a situation:
  - (A) if a danger or risk to safety or security develops for which the customer is liable;
  - (B) if the customer improperly uses electricity by altering the electric facilities or through other means;
  - (C) if the customer uses the electricity for load equipment other than the contract load equipment;
  - (D) if a customer under Public Street Lighting or Agricultural Power uses the electricity for purposes other than those defined in the contract;
  - (E) if a customer under Low Voltage Power uses lamps and/or small-scale appliances;
  - (F) if a customer under Agricultural Power uses electricity during any period other than the contract use term;
  - (G) if the customer refuses without justifiable reason access to their premises for the implementation of work by KYEPCO employees, thus violating the provisions of 34 (Operations through Access to Customer's Premises); or
  - (H) if the customer fails to take necessary measures provided in 35 (Customer's Cooperation Regarding Electricity Consumption).
- (4) If the customer violates the Rules and Rates in any other way, KYEPCO may suspend the supply of electricity to such customer.

# 37. Resumption of Supply

For a customer whose supply of electricity has been suspended in accordance with the provisions of 36 (Suspension of Supply), if the customer eliminates the causes and pays the financial obligations thereof to KYEPCO, KYEPCO shall promptly resume the supply of electricity.

## 38. Electric Charge during Suspension of Supply

If supply is suspended in accordance with the provisions of 36 (Suspension of Supply), the electric charge during such suspension shall be calculated on a per-diem basis pursuant to 28 (Per-Diem

Calculation) and at the rate (the net charge for prompt payment) applicable to any month with no electricity consumed. Any customer under Flat-Rate Lighting, Residential Lighting A, Residential Lighting B, or Public Street Lighting shall not be obliged to pay electric charges for a period of such suspension.

#### 39. Penalty for Breach of Contract

- (1) If a customer acts as described in (3) (B) through (F) of 36 (Suspension of Supply) and fails to pay all or part of the electric charges, the customer shall pay a penalty for breach-of-contract in an amount equivalent to three times the unpaid amount.
- (2) The unpaid amount described in (1) above shall be the difference between the sum determined pursuant to the supply conditions as set forth in the Rules and Rates and the sum determined based on the improper use of the electricity. Further, the amount in this case shall be the net charge for late payment.
- (3) If the length of the period of the improper electricity use cannot be confirmed, such length of time shall be within a six-month period and determined by KYEPCO.

#### 40. Supply Interruption or Restriction on Electricity Use

- (1) KYEPCO may interrupt the electricity supply or request that the customer limit or stop the use of electricity:
  - (A) if it is unavoidable for reasons of electricity supply, such as an extraordinary drought;
  - (B) if there is or is likely to be a failure at the electric facilities of KYEPCO;
  - (C) if it is unavoidable due to repair, alteration or installation work being carried out at the electric facilities of KYEPCO;
  - (D) in case of emergency or disaster; or
  - (E) if necessitated for other safety or security reasons.
- (2) If any of the situations in (1) above occurs, KYEPCO will notify customers in advance through public announcements and other such means; however, where unavoidable in some emergency situations, this provision may not apply.

#### 41. Supply Restriction or Interruption Discount

(1) If KYEPCO interrupts the supply of electricity to the customer or restricts or interrupts the use of electricity by the customer under Flat-Rate Lighting, Residential Lighting or Low Voltage Power, as provided in (1) of 40 (Supply Interruption or Restriction on Electricity Use), KYEPCO shall determine the net electric charge by applying the discount as described below. However, for customers who are responsible for the situation, the said discount shall not apply.

# (A) Discount application

The discount will be applied to the total sum of the customer charge, lamp charge and small-scale appliance charge for Flat-Rate Lighting customers, and demand charge for other customers (demand charge, as adjusted by the power factor if applicable, or minimum charge for Residential Lighting A customers, or minimum monthly charge for Residential Lighting B customers for whom the minimum monthly charge is applicable). However, in the cases described in (1) (A), (B) or (C) of 27 (Billing), the discount shall be applied to the amount determined for the month of the restriction or interruption, based on the contents of the contract.

#### (B) Discount rate

Four (4) percent per day for the total number of days under restriction or interruption during the month

- (C) Calculation of total number of days under restriction or interruption Any day when the restrictions or interruptions come to total one hour or more shall be included in the total number of days.
- (2) Upon calculating the total number of days as in (1), interruptions or restrictions due to work necessary for maintenance or the betterment of KYEPCO's electric facilities for which customers will be given three days' notice before such maintenance or betterment shall be excluded from the calculation, with a one day per month limit. In this case, one day per month shall be a time of restriction or interruption for a single job in one calendar day per one calendar month.
- (3) If KYEPCO interrupts the supply of electricity to or restricts or interrupts the use of electricity by the customer under Temporary Lighting, Public Street Lighting, Temporary Power and Agricultural Power, KYEPCO shall determine the net charge for prompt payment by discounting pursuant to (1) and (2).

#### 42. Exemption from Damages

- (1) KYEPCO will not be liable for damages suffered by the customer arising out of interruptions of supply or restrictions or interruptions of use of electricity by the customer pursuant to (1) of 40 (Supply Interruption or Restriction on Electricity Use), as long as such causes are not attributable to KYEPCO.
- (2) KYEPCO will not be liable for damages suffered by the customer arising out of the suspension of supply of electricity pursuant to 36 (Suspension of Supply) or out of the cancellation or discontinuance of the service contract pursuant to 48 (Cancellation and Others).
- (3) KYEPCO will not be liable for damages suffered by the customer arising from failures such as power leakages as long as such causes are not attributable to KYEPCO.

# 43. Compensation for Damage to Facilities

A customer who damages or destroys, by a willful act or through negligence, the electric facilities, electric equipment, appliances or other facilities owned by KYEPCO and placed at the customer's premises shall compensate for the damages or losses as set forth below.

- (1) If it is possible to repair the damage, the necessary costs thereof shall apply.
- (2) If such facilities are destroyed or repairing the damage is not possible, the book value plus necessary expenses for replacement thereof shall apply.

# VI. ALTERATION AND EXPIRATION OF THE CONTRACT

## 44. Alteration of Supply Service Contract

If a customer requests any alterations in the supply service contract, it shall be handled pursuant to the provisions of II (Application for Supply Service Contract) pertaining to customers requesting a new service contract.

# 45. Change of Registered Name of Customer

If a new customer succeeds all the rights and obligations of a preceding customer for electricity use with KYEPCO, in such cases as inheritance, and wishes to continue using the service, he or she may do so by following the procedures for changing the registered name of the customer. In this case, the customer may do so in person or by telephone unless KYEPCO requests submission of an application in writing.

#### 46. Discontinuance of the Contract

- (1) If a customer wishes to discontinue the supply service, he or she is requested to notify KYEPCO in advance of the date that the supply service is to be discontinued. KYEPCO shall take appropriate measures to discontinue the supply service, in principle, on the date of discontinuation specified in advance by the customer.
- (2) The supply contract shall terminate on the date of discontinuance notified by the customer to KYEPCO, except in the cases in 48 (Cancellation and Others) and the following cases:
  - (A) If KYEPCO receives the customer's notice of discontinuance after the date specified for discontinuance, the service contract shall terminate on the day KYEPCO receives such notice.
  - (B) If KYEPCO is unable to take appropriate measures to discontinue the supply service due to reasons not attributable to KYEPCO (exclusive of emergencies and disasters), the service contract shall terminate on the day such measures can be implemented.

# 47. Charges for Discontinuing or Altering the Contract after Service Starts

If a customer (except for customers under Flat-Rate Lighting, Residential Lighting A, Residential Lighting B, Temporary Lighting, Public Street Lighting and Temporary Power) discontinues the supply service or decreases the contract capacity or contract power within less than one year after the new or increased contract capacity or contract power is established, the customer is required to settle charges and construction costs on the day of discontinuation or change of the contract pursuant to the following. However, this obligation is not applicable if KYEPCO installs the supply facilities taking into consideration future demand and other items or unavoidable situations such as disasters and emergencies.

- (1) If the customer discontinues service use within less than one year after the new contract capacity or contract power is established:
  - (A) KYEPCO shall apply the rate for Temporary Lighting or Temporary Power retroactively regarding the electric charges of the period from the day of such establishment of contract capacity or contract power up to the day before the discontinuance of the service contract. In this case, the customer shall pay the difference between the amount determined as if the rate for Temporary Lighting or Temporary Power was applied from the beginning and the amount already paid by the customer.
  - (B) If supply facilities are newly installed to facilitate a customer's newly established contract capacity or contract power, the customer shall pay KYEPCO the difference between the temporary construction costs as determined pursuant to 64 (Temporary Construction Costs) and the amount of contribution to the construction costs already paid by the customer.
- (2) If the customer discontinues service use within less than one year after the increased contract capacity or contract power is established:
  - (A) KYEPCO shall apply the rate for Temporary Lighting or Temporary Power retroactively regarding the electric charges of the period from the day of such increase of contract capacity or contract power up to the day before the discontinuance of the service contract to the portion of contract capacity or contract power exceeding those of the day before the increase in contract capacity or contract power. In this case, the customer shall pay the difference between the amount determined as if the rate for Temporary Lighting or Temporary Power were applied from the beginning and the amount already paid by the customer.

Furthermore, the energy consumption to which Temporary Lighting or Temporary Power is to be applied shall be determined by dividing proportionally the energy consumption for the period by the ratio of the portion of increase in contract capacity or contract power exceeding those before the increase to the rest of the contract capacity or contract power.

- (B) If supply facilities are newly installed to facilitate the customer's increased contract capacity or contract power, the customer shall pay KYEPCO the difference between the temporary construction costs as determined pursuant to 64 (Temporary Construction Costs) and the amount of contribution to the construction costs already paid by the customer.
- (3) If the customer reduces contract capacity or contract power within less than one year after the new contract capacity or contract power is established:
  - (A) KYEPCO shall apply the rate for Temporary Lighting or Temporary Power retroactively regarding the electric charges of the period from the day of the establishment of such new contract capacity or contract power up to the day before the reduction of the contract capacity

or contract power to the portion of contract capacity or contract power exceeding those on and after the day of contract capacity or contract power reduction. In this case, the customer shall pay the difference between the amount determined as if the rate for Temporary Lighting or Temporary Power was applied from the beginning and the amount already paid by the customer.

Furthermore, the energy consumption to which Temporary Lighting or Temporary Power is to be applied shall be determined by dividing proportionally the energy consumption for the period by the ratio of contract capacity or contract power exceeding those after the reduction to the rest of the contract capacity or contract power.

- (B) KYEPCO shall require the customer to pay the amount of the difference between the temporary construction costs as determined pursuant to 64 (Temporary Construction Costs) and the amount of contribution to the construction costs already paid by the customer for the portion of supply facilities corresponding to the reduction in contract capacity or contract power.
- (4) If the customer reduces the contract capacity or contract power within less than one year after the increased contract capacity or contract power is established:
  - (A) KYEPCO shall apply the rate for Temporary Lighting or Temporary Power retroactively regarding the electric charges of the period from the day of such increase of contract capacity or contract power up to the day before the reduction of the contract capacity or contract power to the portion of the contract capacity or contract power exceeding those on and after the day of contract capacity or contract power reduction. (If the contract capacity or contract power on and after the day of such reduction is less than that of the day before the increase, such rate shall be applied to the portion of the contract capacity or contract power exceeding that of the day before such increase.) In this case, the customer shall pay the difference between the amount determined as if the rate for Temporary Lighting or Temporary Power were applied from the beginning and the amount already paid by the customer.

Furthermore, the energy consumption subject to Temporary Lighting or Temporary Power shall be determined by dividing proportionally the energy consumption for the period by the ratio of the contract capacity or contract power exceeding that after the reduction to the rest of the contract capacity or contract power. (If the contract capacity or contract power after such reduction is less than that before the increase, such energy consumption shall be based on the portion of the contract capacity or contract power exceeding that before such increase.

(B) KYEPCO shall require the customer to pay the amount of the difference between the

temporary construction costs as determined pursuant to 64 (Temporary Construction Costs) and the amount of contribution to the construction costs already paid by the customer for the portion of supply facilities corresponding to the reduction in contract capacity or contract power.

#### 48. Cancellation and Others

- (1) KYEPCO may cancel service contracts with a customer if the customer fails to eliminate the causes of the suspension of the electric service as defined in 36 (Suspension of Supply) by the date designated by KYEPCO. In such a case, KYEPCO will notify the customer accordingly.
- (2) If a customer moves out of the customer's premises without notifying KYEPCO as defined in (1) of 46 (Discontinuance of the Contract), and it is obvious that no electricity has been consumed, such service contract shall terminate on the day KYEPCO takes measures to discontinue the supply service.

# 49. Financial Rights and Obligations after the Expiration of the Contract

Financial rights and liabilities of electric charges or other amounts incurred during the contract period will not become invalidated upon termination of the service contract.

## VII. SUPPLY METHOD AND CONSTRUCTION

#### 50. Delivery Point and Installation

- (1) The delivery point of electricity (the point where the supplying and receiving of electric service occurs) shall be a point connecting a customer's electric facilities with KYEPCO's power lines or service lines.
- (2) The delivery point shall be located within the customer's premises and shall be determined upon agreement between the customer and KYEPCO based on the point that is the closest to KYEPCO's power line. However, any place other than the customer's premises may be designated as a delivery point upon agreement between the customer and KYEPCO in the following cases:
  - (A) The electric supply service is to be provided at a customer's premises located in mountainous areas, remote islands or other places located at a substantial distance from KYEPCO's power lines and no other customer is expected to appear in the area or surrounding areas in the future.
  - (B) The electric supply service is to be provided at the customer's premises where access by KYEPCO is difficult.
  - (C) The electric supply service is to be provided at two or more of the customer's premises within the same building and the electric facilities up to such customer's premises are to pass through places out of KYEPCO's control.
  - (D) The electric service is to be supplied via an underground service line as defined in (4) of 52 (Underground Service Line).
  - (E) There are other special conditions.
- (3) KYEPCO shall install and own the supply facilities up to the delivery point, at its own expense, except for the customer's contribution to construction costs or temporary construction costs.
  - Further, KYEPCO shall require the customer to provide KYEPCO with a location within the customer's site or a building at no cost to KYEPCO for the installation of supply facilities such as service lines, transformers, and connecting equipment to be used exclusively by the customer (including those customers who receive the supply via "common use" service lines).
- (4) Incidental facilities (electrical facilities that support or store the supply facilities to be installed at the customer's site or building based on (3) above and facilities that are installed in the customer's building and are necessary for the installation of such supply facilities) shall be, in principle, owned by the customer and installed at the customer's expense. In such cases, KYEPCO shall be entitled to use such incidental facilities free of charge.

#### 51. Overhead Service Line

- (1) If a service line is used to connect a customer's electric facilities with KYEPCO's power lines, in principle, the overhead service line is used. KYEPCO shall be responsible for the installation connecting the service line with the anchoring point in the customer's building or other auxiliary support. In this case, the anchoring point of the service line shall be decided by agreement between the customer and KYEPCO, in principle, as the closest point to the most appropriate support of KYEPCO's power lines and where the most stable installation can be achieved.
- (2) Wiring from the delivery point to the service switch (hereinafter referred to as "incoming wiring") shall be owned by the customer and installed at the customer's expense.
- (3) Auxiliary support for fixing the service line at the customer's premises, such as a pole for service lines, shall be owned by the customer and installed at the customer's expense.
- (4) KYEPCO may, with the customer's consent, utilize the customer's pole for service lines to supply electricity to other customers under the following conditions:
  - (A) If KYEPCO installs the service lines for other customers utilizing the customer's pole for service lines, incoming wiring from such pole for service lines to the customer's building nearest to it or to the anchoring point of the auxiliary support shall be designated as the service lines, and KYEPCO shall be responsible for the management of such service lines and the pole for service lines (including bearing the material costs). The delivery point shall be changed to the terminal of the customer's service lines.
  - (B) If repair or removal of the service lines or poles for service lines managed by KYEPCO as described in (A) above is to be conducted, KYEPCO shall be the one to conduct such work; and any material removed in the course of such work shall be returned to the customer. New service lines or poles for service lines installed subsequently shall be owned by KYEPCO and installed at the expense of KYEPCO.

#### 52. Underground Service Line

- (1) If the construction of overhead service lines is not permitted by law or is deemed inappropriate due to technical, economic or regional reasons and the customer's electric facilities are to be connected with KYEPCO's power line via an underground service line, KYEPCO shall be responsible for the installation points closest to the power source as described in (A) and (B) below:
  - (A) the connecting point of the circuit breaker, line disconnecting switch or connecting equipment installed by the customer within the customer's premises; or
  - (B) the connecting point of metering devices (including accessories thereof) or connecting equipment installed by KYEPCO.

KYEPCO may install the connecting equipment within the customer's site or building.

(2) The location for installing the electric facilities to be connected with KYEPCO's power lines, as described in (1) above, shall be determined by agreement between the customer and KYEPCO as the point closest to the most appropriate support or branching point of KYEPCO's power lines; in principle, it shall not require special construction work incurring significant cost for the installation of the underground service lines, and it shall ensure a safe installation and satisfy the conditions below.

In other cases, the underground service line within the customer's premises shall be owned by the customer and installed at the customer's expense.

- (A) A place where the construction length of the underground service lines within the customer's site is 50 meters or less:
- (B) A place located on the third floor or a floor below the third floor of the building; and
- (C) A place where no special techniques or materials are needed for the underground service line installation.
- (3) Incidental facilities necessary for connecting the customer's electric facilities with KYEPCO's power lines by utilizing the underground service line shall be those described below:
  - (A) facilities such as steel pipes or culverts that are installed to hold the underground service lines in the walls of the customer's site or building;
  - (B) base blocks (including those used to fix the connecting equipment) and hand holes installed at the customer's site or building;
  - (C) other facilities similar to those described in (A) and (B).
- (4) If the customer wishes to use an underground service line at a place where an overhead service line may be used, the underground service line shall be, in principle, owned by the customer and installed at the customer's expense. However, if KYEPCO considers it appropriate for safety or maintenance reasons, the connection may be made as pursuant to (1) above. In this case, the customer shall be required to pay a contribution to the construction costs, as described in 60 (Contribution to Construction Costs for Special Supply Facilities).

#### 53. Extension Service Lines and Others

(1) KYEPCO may supply electricity via extension service lines (service lines branching out from the service line at a customer's premises and reaching to other delivery point(s) at another customer's premises without passing through any supports) or common use service lines

(service lines to supply electricity with the use of one service line for two or more contracts) in areas with special features such as densely built areas. In this case, KYEPCO may install branching equipment at the customer's site or building.

KYEPCO shall install service lines to the connecting point with customer's electrical facilities.

- (2) KYEPCO may, with the customer's consent, utilize the customer's incoming wiring to supply electricity to other customers under the following conditions:
  - (A) If KYEPCO installs for other customers service lines which branch out from the customer's incoming wiring, the line up to the terminal of such incoming wiring shall be defined as a common use service line(s), and KYEPCO shall be responsible for the line's management, which includes bearing the material costs. And the delivery point shall be changed to the terminal of the common use service line(s) managed by KYEPCO.
  - (B) If repair or removal of the common use service lines managed by KYEPCO as described in (A) above is to be conducted, KYEPCO shall be responsible for conducting such work, and any material removed in the course of such work shall be returned to the customer. New common use service lines installed subsequently shall be owned by KYEPCO and installed by KYEPCO at its expense.

#### 54. Supply Method for Multi-storied Buildings

When electric service is to be supplied to two or more customers' premises within one building structure of a multi-storied building, KYEPCO shall, in principle, provide electric supply service using one common use service line.

If required for any inevitable technical or other reason, KYEPCO shall install supply facilities such as transformers on the customer's site or building and supply electricity. In this case, KYEPCO shall be responsible for installation up to the transformer terminal on the secondary side.

#### 55. Connection of Service Line

KYEPCO shall be responsible for the connection of the customer's electric facilities with KYEPCO's power line or service line.

If the customer wishes to change the location of the service line, KYEPCO shall require the customer to pay the actual expenses incurred.

#### 56. Installation of Meters and Others

- (1) Based on the contract power and other items KYEPCO shall select, own and install at its expense meters (such as watt-hour meters) and accessory equipment (including meter boxes, current transformers, current transformer boxes, secondary wiring for current transformers, communication equipment, and communication lines) and time switching devices necessary for the billing of electric charges. However, in the cases below, the customer may be required to own and install such equipment at the customer's expense:
  - (A) Accessory equipment is installed upon request by the customer.
  - (B) The cost is due to the necessity of cables other than KYEPCO's specifications for the secondary wiring of the current transformer or for especially long wiring requested by the customer.
- (2) The locations of meters, accessory equipment and time switching devices shall be determined by agreement between the customer and KYEPCO to ensure accurate metering, easy reading, inspection, installment and removal. Meters, accessory equipment and time switching devices are, in principle, installed outside of the building.
- (3) The customer shall provide, free of charge, space for the installation of meters, accessory equipment, and time switching devices. Further, KYEPCO shall be entitled to use, free of charge, the items installed by the customer as described in (1).
- (4) If the location of meters, accessory equipment and time switching devices is changed upon the request of the customer, KYEPCO shall require the customer to pay the actual expenses incurred.

## 57. Installation of Current Limiters and Others

- (1) KYEPCO shall own and install at its expense the current limiter at the customer's premises.
- (2) The current limiter is to be installed, in principle, inside the building, and the customer shall provide KYEPCO, free of charge, with the space for such installation.
- (3) If the location of the current limiter is changed upon the request of the customer, KYEPCO shall require the customer to pay the actual expenses incurred.

#### 58. Separate Supply Facilities for Exclusive Use

- (1) KYEPCO shall install supply facilities for the customer's exclusive use, for which KYEPCO requires the customer to pay a contribution to the construction costs as defined in 60 (Contribution to Construction Costs for Special Supply Facilities), for the following cases:
  - (A) The customer specifically requests such installation and KYEPCO deems it to cause no interference with supply service to other customers.
  - (B) The provisions of 35 (Customer's Cooperation Regarding Electricity Consumption) are

- applicable.
- (C) It is deemed appropriate to install supply facilities for exclusive use by certain customers due to safety and security reasons at a customer's facilities, or if no other demands are expected in the future due to the nature of the customer's premises or surrounding conditions.
- (2) Supply facilities for exclusive use in (1) above shall be limited to the power line from the delivery point up to KYEPCO's substation nearest the delivery point, including switchboards, relays and power lines to the point of the line disconnecting switch on the side of the bus bar or a similar connecting point operated at the same voltage as the supply voltage from such substation. However, if required by special circumstances, the power line operated at the same voltage as the supply voltage and the transformer connected thereto, including the line switch on the primary voltage side of the line, may constitute such facilities.
- (3) KYEPCO may install the supply facilities as common supply facilities to be used exclusively by two or more customers. However, in the case described in (1) (A), it is subject to the consent of all customers and must satisfy either of the following conditions:
  - (A) Applications are made at the same time by two or more customers and the customers request the electric service to be supplied via supply facilities for their exclusive use, or
  - (B) The customer requests the electric service to be supplied via the existing supply facilities for their exclusive use.

## VIII. CONTRIBUTION TO CONSTRUCTION COSTS

#### 59. Contribution to Construction Costs for General Supply Facilities

(1) When the customer uses electricity under a new contract or increases the contract power, etc. and the total length of distribution facilities (except supply facilities for exclusive use) to be newly installed exceeds the length of construction performed free of charge (hereinafter referred to as "free construction") (1,000 meters for overhead installations or 150 meters for underground installations), the customer shall pay KYEPCO a contribution to the construction costs. The amount to be paid shall be obtained by applying the unit prices below to the excess length of such facilities.

Category	Unit	Price
Overhead distribution facilities	Per meter of excess length	¥3,255.00
Underground distribution facilities	Per meter of excess length	¥25,935.00

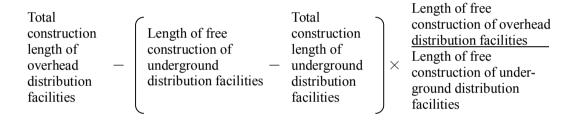
In a case of distribution line replacement or additional placement, the value equivalent to sixty (60) percent of such length of work for the overhead distribution facilities, or twenty (20) percent of that for the underground distribution facilities, shall be considered as the total length of distribution facilities to be newly installed.

- (2) The supply facilities subject to such contribution to construction costs shall the disconnecting switch installed at the outgoing line outlet of the supply substation closest to the delivery point or distribution facilities extending from the delivery point to the load side connecting point of equivalent equipment; or
- (3) The contribution to the construction costs shall be determined for each supply contract. However, if two or more contracts are concluded at a customer's premises, such contribution shall be determined for each customer's premises.
- (4) If two or more customers share all or a part of the distribution facilities, the contribution to the construction costs shall be determined as follows:
  - (A) If two or more customers make an application together, the contribution shall be determined on the assumption that such application was made by a representative customer. In such cases, the length of free construction shall be the value obtained by multiplying the length of free construction in (1) by the number of customers.
  - (B) If two or more customers make applications at the same time, the contribution shall be determined for each customer. In such cases, the construction length of the new distribution facilities for each customer shall be the sum total of the value obtained by dividing the construction length of the part commonly used by all of the customers by the number of

customers and the value of the construction length of the part used by each customer exclusively.

- (5) If both overhead and underground distribution facilities are to be installed, the excess construction length in (1) shall be determined as follows:
  - (A) The excess construction length of the underground distribution facilities shall be the value obtained by subtracting the length of free construction of underground distribution facilities from the total construction length of the underground distribution facilities.
  - (B) The excess construction length of the overhead distribution facilities shall be the value of the total construction length of the overhead distribution facilities. However, if the total construction length of the underground distribution facilities is less than the length of free construction of underground distribution facilities, the following shall apply:

The excess construction length of the overhead distribution facilities =



(6) In the provisions of VIII (Contribution to Construction Costs), the following terms shall have the meanings as defined below:

#### (A) Distribution facilities

This refers to the supply facilities extending to the delivery point directly from a power plant or substation without passing through any other power plant or substation and includes power lines, service lines and transformers, as well as other devices that support and store those facilities (inclusive of supports, insulators, stays, culverts and pipes).

#### (B) Construction length

This refers to the construction length between the distribution facilities and the supply facilities closest to the delivery point determined by the design defined in Schedule 9 (Standard Design Criteria) (hereinafter referred to as "standard design") and does not necessarily mean the actual construction length.

The unit for construction length shall be one (1) meter. Any fraction of one half of one (1) meter or more will be rounded up to the next full meter. Fractions less than one half of one (1) meter will be disregarded.

- (7) For each provision in VIII (Contribution to Construction Costs), the increase of contract power or other items refers to cases where the following values increase:
  - (A) Total capacity of the contract load equipment for Flat-Rate Lighting, Temporary Lighting A and Public Street Lighting A
  - (B) Contract current
  - (C) Contract capacity
  - (D) Contract power

Furthermore, if a customer's supply method changes from AC, single-phase two-wire, at a standard voltage of 100 or 200 volts to AC, single-phase three-wire, at a standard voltage of 100 or 200 volts, the contract power or other items shall be increased.

# 60. Contribution to Construction Costs for Special Supply Facilities

If a customer uses electricity under a new contract or increases the contract power, etc., and special supply facilities are to be installed accordingly, the customer shall pay KYEPCO the following amounts as a contribution to the construction costs.

(1) If a customer requests supply facilities to be constructed with designs exceeding the standard design, the customer shall pay for expenses in excess of those construction costs based on the standard design (hereinafter referred to as "standard design construction costs").

In this case, the construction of the supply facilities with designs exceeding the standard design elements shall refer to any of the following cases:

- (A) Wires, supports, transformers or other devices that exceed the standard design necessary to supply service for the customer are installed.
- (B) Underground service lines are installed in spite of the fact that electricity may be supplied via overhead service lines.
- (C) The customer receives electricity from distribution facilities other than those with the standard design.
- (D) Other cases exist where the supply facilities are installed with a design exceeding the standard design necessary to supply service for the customer.

In such cases, the customer shall pay the contribution to the construction costs described in 59 (Contribution to Construction Costs for General Supply Facilities).

(2) In case the supply facilities for exclusive use are constructed pursuant to 58 (Separate Supply Facilities for Exclusive Use), the customer shall pay the amount equal to the total construction

costs.

In such case, the supply facilities subject to such contribution to construction costs shall be pursuant to (2) of 58 (Separate Supply Facilities for Exclusive Use).

## 61. Contribution to Construction Costs Applicable to Changes in Supply Facilities

- (1) If a customer requests changes to be made to the supply facilities without entering a new supply contract or increasing the contract power, etc. (limited to cases where the change is directly related to the supply of electricity to the customer), the customer shall pay KYEPCO the full cost of construction as a contribution to construction costs, except in a case where the customer is charged the actual expenses described in 55 (Connection of Service Line), 56 (Installation of Meters and Others) or 57 (Installation of Current Limiters and Others).
- (2) If changes are to be made to the supply facilities as defined in 35 (Customer's Cooperation Regarding Electricity Consumption), the customer shall pay KYEPCO the full cost of construction as a contribution to construction costs.

## 62. Calculation of Construction Costs for Special Supply Facilities and Others

Construction costs described in 60 (Contribution to Construction Costs for Special Supply Facilities) and 61 (Contribution to Construction Costs Applicable to Changes in Supply Facilities) shall be calculated as detailed below.

- (1) Construction costs hereunder, except upon customer's request for construction with a design exceeding the standard design, shall be the standard design construction cost calculated as follows:
  - (A) The standard design construction cost shall be the sum total of expenses for materials, labor, and general expenses pertaining to the construction work performed on supply facilities subject to a customer's contribution to construction costs.
  - (B) The cost of materials shall be determined by their unit prices (i.e. the unit prices at the time of issuance of the stored material calculated in the method provided in the Accounting Regulations of the Electric Power Industry) at the time of issuance.
  - (C) Costs for removal, if any, shall be determined by first subtracting the salvage value of the removed material from the total construction cost as calculated in (A), then adding removal work costs (inclusive of overhead).
  - (D) When installing temporary supply facilities upon the customer's request, the construction costs for such work shall be determined pursuant to the provision of 64 (Temporary Construction Costs).
- (2) Construction costs for supply facilities requested by the customer that include design elements

exceeding those of the standard design shall be calculated pursuant to (1) above.

- (3) In the case of (1) of 60 (Contribution to Construction Costs for Special Supply Facilities), if it is appropriate to determine the construction costs based on the unit price per meter of excess construction length as defined in (1) of 59 (Contribution to Construction Costs for General Supply Facilities), notwithstanding the provisions of (1) and (2) above, the construction costs for supply facilities with a standard design or with a design exceeding the standard design shall be determined based on (1) of 59 (Contribution to Construction Costs for General Supply Facilities). In this case, the construction costs shall be determined by applying the price for one (1) meter of excess construction length to the total construction length of the newly constructed distribution facilities.
- (4) If KYEPCO supplies electric service to a customer by utilizing steel towers, cable conduits or similar facilities previously installed by KYEPCO in consideration of future requirements, an amount determined by the following calculations and based on the number of circuits, conduit holes or other facilities necessary for the power line to be newly installed shall be added to the cost of the power line construction.
  - (A) If electricity is supplied utilizing steel towers

Construction costs  $\times \frac{\text{Number of circuits used}}{\text{Number of circuits installed}}$ 

(B) If electricity is supplied utilizing conduits

Construction costs  $\times \frac{\text{Number of holes used}}{\text{Number of holes installed} - \text{Number of spare holes}}$ 

# 63. Payment of Contribution to Construction Costs

- (1) KYEPCO shall require the customer to pay a contribution to construction costs prior to the commencement of the construction work. However, the customer may pay the contribution to construction costs after the construction work commences if the customer's special circumstances so require. In this case, the customer is required to pay such contribution prior to the start of the supply service.
- (2) Prior to the commencement of construction work, KYEPCO shall prepare the contract, including the necessary items regarding the contribution to construction costs, if the customer so requests or KYEPCO deems necessary.
- (3) The contribution shall be adjusted and settled immediately after the completion of work in the following cases:
  - (A) The contribution falls under the categories below when such contribution amount is determined pursuant to 59 (Contribution to Construction Costs for General Supply Facilities).
    - (a) The difference in the construction length due to a change in design or other items exceeds

- five (5) percent for either the overhead distribution facilities or underground distribution facilities.
- (b) There is a difference between the contribution to construction costs and the actual cost of construction for any other reason.
- (B) If the contribution falls under the categories below and such contribution amount is determined pursuant to 60 (Contribution to Construction Costs for Special Supply Facilities) (if the construction cost is determined based on the unit price per meter of excess construction length pursuant to 59 (Contribution to Construction Costs for General Supply Facilities), it shall be pursuant to (A) above) and 61 (Contribution to Construction Costs Applicable to Changes in Supply Facilities).
  - (a) The change is necessitated in the specifications of main equipment, such as utility poles (inclusive of steel towers and steel poles), wires and transformers, or the difference in the quantity of main equipment (exclusive of low voltage service lines) exceeds five (5) percent, due to a change in design.
  - (b) There is a change in the unit prices for materials between those at the time of designing and those at the time of issuance (excluding cases where the duration of time between designing and issuance is short).
  - (c) There is significant difference between the contribution to construction costs and the actual cost of construction due to other special reasons.
- (4) KYEPCO may change the supply facilities for exclusive use to supply facilities for general use with the customer's consent.

If such change occurs within ten (10) years from such facility installation, the amount of the difference between the contribution to the construction costs determined as if the facilities had been general supply facilities at the time of such installation, and the actual contribution to the construction costs already paid shall be refunded to the customer.

(5) If the areas, which are prepared for sale as lots for housing or other buildings, and in principle, all of the buildings are to be constructed within one (1) year, and if all of the customers make application altogether, the customers shall pay KYEPCO in advance, as the contribution to construction costs defined in 59 (Contribution to Construction Costs for General Supply Facilities), the amount calculated for the excess construction length, which is determined as the portion of the total construction length for all the buildings to be constructed that exceeds the value obtained by multiplying the length of free construction by seventy (70) percent of the number of total customers.

Further, the contribution to construction costs shall be adjusted by the number of customers for whom, as of the date specified in the contract covering such contribution to construction costs, supply service has already started. In this case, the construction length subject to such adjustment shall be based on the distribution facilities installed, even if the number of customers who made application and those who started receiving supply services are not the same.

# **64.** Temporary Construction Costs

(1) If supply facilities are newly installed for a customer who is to receive the electric supply service as defined in 18 (Temporary Lighting Service) or 21 (Temporary Power Service), the customer shall pay KYEPCO temporary construction costs, consisting of the construction costs for the new supply facilities and expenses for the removal of said facilities (inclusive of overhead), after subtracting the salvage value of the removed facilities and materials, prior to the commencement of construction work, in principle.

Further, the salvage value of the removed facilities and materials shall be ninety-five (95) percent of the price of equipment such as transformers and circuit breakers and fifty (50) percent for that of other facilities.

- (2) In a case when KYEPCO requires the customer to pay the temporary construction costs, the customer shall not be required to pay contribution to construction costs as defined in 59 (Contribution to Construction Costs for General Supply Facilities), 60 (Contribution to Construction Costs for Special Supply Facilities), and 61 (Contribution to Construction Costs Applicable to Changes in Supply Facilities).
- (3) The customer is not required to pay temporary construction costs for the portions of the supply facilities to be installed that are permanent facilities KYEPCO installed taking into consideration future demand and other factors and represent the length of free construction.
- (4) Settlement of the temporary construction costs shall be made pursuant to the case described in (3) (B) of 63 (Payment of Contribution to Construction Costs).

#### 65. Charges for Discontinuing and Altering the Contract before Service Starts

If a customer terminates or changes the supply contract before the commencement of service for reasons attributable to the customer after all or part of the installation of the supply facilities has been completed, the customer shall pay KYEPCO the actual construction cost incurred.

Even if no actual construction work was implemented, if significant cost was incurred due to measurements and other work, the customer shall pay KYEPCO the actual cost thus incurred.

## IX. SAFETY AND SECURITY

#### 66. Safety and Security Responsibility

KYEPCO shall be responsible for the safety and security of the supply facilities up to the delivery point and for the metering devices and other electric installations at the customer's premises.

# 67. Investigation

(1) KYEPCO shall conduct investigation as to whether the customer's electric facilities conform to the technical standards prescribed by laws and ordinances.

Further, KYEPCO employee(s) shall present proper identification.

- (2) Investigation shall be conducted regarding the items below, although some of the items may be omitted from the investigation if deemed unnecessary:
  - (A) Measurement of the insulation resistance and leakage current
  - (B) Measurement of the grounding resistance
  - (C) Inspection
- (3) After the investigation referred to in (1) above, KYEPCO shall inform the customer whether there is conformity to the technical standards or whether necessary measures are to be implemented to achieve conformity to technical standards and of the problems that may arise if such measures are not taken.

The results of the investigation shall be given, in principle, to the customer in writing at the time of such investigation and shall include the date of such investigation, the name of the employee(s) in charge of the investigation, a place to contact for inquiries and other items.

# 68. Commissioning Investigations and Other Items

- (1) KYEPCO may commission an investigation agency registered with the Minister of Economy, Trade and Industry (hereinafter referred to as "registered investigation agency") to conduct all or part of an investigation as described in 67 (Investigation).
- (2) If KYEPCO commissions the investigation referred to in (1), KYEPCO will notify the customer in writing or by some other means of the name and address of the organization commissioned for the investigation and the content of the investigation.

#### 69. Customer's Cooperation for Investigation

(1) If a customer carries out any alteration work on the electric facilities, the customer is required to

- promptly notify KYEPCO or the registered investigation agency to that effect upon completion of the work.
- (2) Upon performing the investigation referred to in (1) of 67 (Investigation), KYEPCO shall request, with the consent of the customer, a wiring diagram of the customer's electric facilities if KYEPCO deems it necessary.

# 70. Customer's Cooperation for Safety and Security

- (1) The customer shall give prompt notice to KYEPCO so that KYEPCO can take appropriate countermeasures promptly in the following situations:
  - (A) A customer perceives that there is or is likely to be an abnormality or failure in the service line, metering devices or other KYEPCO facilities located on the customer's premises.
  - (B) A customer perceives that there is or is likely to be an abnormality or failure in any of the customer's electric facilities that might affect KYEPCO's supply facilities.
- (2) The customer shall notify KYEPCO, in advance, if the customer is to install, alter or repair any object, including generating facilities, that may directly affect KYEPCO's supply facilities; and, the customer shall notify KYEPCO immediately if such installation, alteration or repair has directly affected KYEPCO's supply facilities. In such cases and where it is especially necessary for safety and security reasons, KYEPCO may request that the customer modify or change the details of such work.

# 71. Acceptance of Inspections and Construction upon Customer's Request

- (1) The customer may request that KYEPCO conduct an inspection of the electric facilities or testing of electric appliances necessary for ensuring safety.
- (2) Upon receipt of the request described in (1) above, KYEPCO shall promptly conduct an inspection or test. In such a case, the customer shall pay KYEPCO an inspection or testing fee for the actual expenses incurred. However, a simple and easy inspection or test may be done free of charge.
- (3) The customer may require that KYEPCO undertake construction work on the electric facilities necessary for ensuring safety.
- (4) Upon receipt of the request described in (3) above, KYEPCO shall accept and undertake such work to the maximum possible extent. If KYEPCO accepts such a commission, the customer shall pay KYEPCO an amount equal to the actual expense incurred. However, the customer shall be required to pay only the material costs (exclusive of expendable supplies) for simple work such as taping the damaged part of the wire cover.

# 72. Electric Facilities for Exclusive Use

For a customer's electric facilities, referred to as "electric facilities for exclusive use," the provisions of the Rules and Rates listed below shall not apply:

- (1) 67 (Investigation)
- (2) 68 (Commissioning Investigations and Other Items)
- (3) 69 (Customer's Cooperation for Investigation)
- (4) 71 (Acceptance of Inspections and Construction upon Customer Request)

#### SUPPLEMENTARY PROVISIONS

#### 1. Enforcement Date of the Rules and Rates

The Rules and Rates shall be implemented on and after April 1, 2007.

# 2. Management of Billing Procedure for Residential Lighting Customers in an Apartment Complex

- (1) For customers under Residential Lighting, if a single service contract is concluded because each apartment or room (hereinafter referred to as an "apartment") of an apartment complex (which is defined as a building containing two or more households) cannot be considered an independent customer's premises, the net charge for prompt payment shall, notwithstanding the provisions of (1) (D), (2) (D) and (3) (E) of 17 (Residential Lighting Service), be temporarily calculated pursuant to (2) herein below, except for the cases listed below. In such cases, the customer shall give notice in advance.
  - (A) Where said complex is a single building and each apartment within is not distinctly divided by partition walls; or
  - (B) Where said complex is a single building and each apartment within is distinctly divided by partition walls, but the activity of each apartment is not considered independent.
- (2) The net charge for prompt payment shall be calculated by applying the provisions of Residential Lighting A or Residential Lighting B to each apartment, as detailed below:

# (A) Demand charge

The demand charge is obtained by multiplying the number of apartments by the demand charge corresponding to the contract current, which is obtained by dividing the contract current or contract capacity of the apartment complex by the number of apartments. However, this provision does not apply to Residential Lighting A.

## (B) Energy charge

The energy charge (net charge for prompt payment in the case of Residential Lighting A) is obtained by multiplying the number of apartments by the energy charge corresponding to the amount obtained by dividing the energy consumption of the apartment complex for the month by the number of apartments (kWh).

#### 3. Special Measures for Public Street Lighting Customers

The following rates and other supply conditions are applicable, as of the effective date of the Rules and Rates, to customers under Public Street Lighting subject to Supplementary Provision 3 (Special Measures for Public Street Lighting Customers) of the former Rules and Rates (hereinafter referred to as "Former Rules and Rates"), unless the contract is amended.

# (1) Contract Capacity

Contract capacity for this service shall be 0.5 kilovolt-amperes.

#### (2) Rates

The electric charge shall be either the "net charge for prompt payment" when payment is made within the prompt payment period, or the "net charge for late payment" when payment is made after the prompt payment period. However, in the case of (1) (A) of 27 (Billing), the net charge obtained by per-diem calculation pursuant to 28 (Per-Diem Calculation) for a terminated contract shall be the net charge for prompt payment.

# (A) Net charge for prompt payment

The net charge for prompt payment is determined by the amount of energy consumed within the billing month. However, if the average fuel price calculated pursuant to (1) (A) of Schedule 1 (Fuel Cost Adjustment) is lower than ¥18,300, the fuel cost adjustment amount calculated pursuant to Residential Lighting A shall be subtracted from such determined amount. If the average fuel price calculated pursuant to (1) (A) of Schedule 1 (Fuel Cost Adjustment) is higher than ¥20,100, the fuel cost adjustment amount calculated pursuant to Residential Lighting A shall be added to such amount.

Minimum charge	For first 12 kWh per contract	¥262.50
Energy charge	Per kWh exceeding the above amount	¥13.95

# (B) Net charge for late payment

The net charge for late payment shall be the amount obtained by adding three (3) percent to the net charge for prompt payment.

(3) Other provisions shall conform to those for Public Street Lighting B; however, the application of 28 (Per-Diem Calculation) or 41 (Supply Restriction or Interruption Discount) shall be pursuant to Residential Lighting A.

# 4. Special Measures for Agricultural Lighting Customers

The following rates and other supply conditions are applicable, as of the effective date of the Rules and Rates, to customers utilizing light traps(s) for agricultural purposes for a period of one month or more annually subject to Supplementary Provision 4 (Special Measures for Agricultural Lighting Customers) of the Old Rules and Rates.

#### (1) Rates

The electric charge shall be either the "net charge for prompt payment" when payment is made within the prompt payment period, or the "net charge for late payment" when payment is made after the prompt payment period. However, in the case of (1) (A) of 27 (Billing), the net charge obtained by per-diem calculation pursuant to 28 (Per-Diem Calculation) for a terminated

contract shall be the net charge for prompt payment.

#### (A) Net charge for prompt payment

The corresponding rate for Flat-Rate Lighting shall apply to the net charge for prompt payment. However, if the average fuel price calculated pursuant to (1) (A) of Schedule 1 (Fuel Cost Adjustment) is lower than ¥18,300, the fuel cost adjustment amount calculated pursuant to Flat-Rate Lighting shall be subtracted from the lamp and/or small appliance charge. If the average fuel price calculated pursuant to (1) (A) of Schedule 1 (Fuel Cost Adjustment) is higher than ¥20,100, the fuel cost adjustment amount calculated pursuant to Flat-Rate Lighting shall be added to the lamp and/or small appliance charge.

No charge shall be billed for any period other than the contract use period. The total amount of the net charge for prompt payment for any one-year period shall be in no case less than the minimum secured charge, which is the net charge for prompt payment for a month and shall be determined based on the contract load equipment when the total capacity of the contract load equipment is highest during a year.

# (B) Net charge for late payment

The net charge for late payment is obtained by adding three (3) percent to the net charge for prompt payment.

- (2) Electric charges for cases where the electric supply is resumed or stopped shall be calculated per-diem as defined in 28 (Per-Diem Calculation).
- (3) If the customer is required to pay charges when the total amount of net charge for prompt payment for one-year period is less than the minimum secured charge, such payment obligation shall be incurred on the meter reading day of the meter reading area to which the customer belongs occurring immediately after the day on which the amount that fell short becomes apparent as a result of calculation.
- (4) The provisions of (1) of 9 (Contract Units), (2) of 25 (Billing Period), (1) (B) of 29 (Payment Obligation and Payment Period), (9) of 30 (Payment of Electric Charges and Other Items), and (1) (C) (b) of Schedule 1 (Fuel Cost Adjustment) shall conform to those for Temporary Lighting.
- (5) Provision (3) (D) and (F) of 36 (Suspension of Supply) shall conform to those of Agricultural Power.

# (6) Others

- (A) If a customer requests to stop the use of electricity during the contract use period, the contract use period shall be changed provided that the customer uses electricity for one (1) month or more continuously.
- (B) If a customer stops the use of the service, KYEPCO may take measures such as disconnecting

service lines.

(C) Other provisions shall conform to those for Flat-Rate Lighting.

# 5. Transitional Measures for Implementation of the Rules and Rates

For service contracts that predate March 31, 2007, the electric charges for which the payment obligation incurs on and after the effective date of the Rules and Rates shall be, in principle, billed pursuant to the provisions set forth in the Rules and Rates.

#### **SCHEDULES**

### Schedule 1: Fuel Cost Adjustment

- (1) Calculation of Fuel Cost Adjustment Amount
  - (A) Average fuel price

The average fuel price per kiloliter converted to the crude oil equivalent shall be the value calculated by the formula below, based on the volume and price of import items in the customs clearance statistics. The average fuel price shall be represented in 100-yen units. Amounts of 50 yen or more will be expressed as 100 yen; amounts less than 50 yen will be disregarded.

Average fuel price = A  $\times \alpha$  + B  $\times \beta$  + C  $\times \gamma$ 

A: Average price per kiloliter of crude oil for each quarter

B: Average price per ton of liquefied natural gas for each quarter

C: Average price per ton of coal for each quarter

 $\alpha : 0.0593$ 

 $\beta: 0.2701$ 

 $\gamma : 0.7976$ 

The unit for the average crude oil price per kiloliter, the average liquefied natural gas price per ton, and the average coal price per ton for each quarter shall be 1 yen. If the amount is 0.5 yen or more, it will be expressed as one yen; amounts less than 0.5 yen will be disregarded

#### (B) Fuel cost adjustment rate

The fuel cost adjustment rate shall be the value calculated by the formulas below for each contract category (hereinafter referred to as the "basic rate") plus the sum equivalent of consumption and other taxes (the sum equivalent of the consumption tax as established by the Consumption Tax Law and the local consumption tax as established by the Local Tax Law). In this case, the unit for the sum equivalent of the consumption and other taxes shall be 0.01 yen. Any fraction of less than 0.01 yen shall be rounded up to 0.01 yen if the basic rate is calculated as in (a) below or disregarded if the basic rate is calculated based on (b) or (c) below.

The unit for the basic rate is 0.01 yen. Any fraction of 0.005 or more will be expressed as 0.01 yen; fractions less than 0.005 will be disregarded.

(a) If the average fuel price per kiloliter is lower than \\$18,300:

Basic rate = (\forall 19,200 - Average fuel price)  $\times$  Base rate in (2)  $\frac{1,000}{1,000}$ 

(b) If the average fuel price per kiloliter is higher than \(\frac{4}{20}\),100 and lower than \(\frac{4}{28}\),800:

Basic rate = (Average fuel price - 
$$\frac{419,200}{1,000}$$
 ×  $\frac{\text{Base rate in (2)}}{1,000}$ 

(c) If the average fuel price per kiloliter is higher than \(\frac{4}{2}\)8,800, the said average fuel price shall be \(\frac{4}{2}\)8,800:

Basic rate = 
$$(\$28,800 - \$19,200) \times \frac{\text{Base rate in } (2)}{1,000}$$

(C) Application of fuel cost adjustment rate

The fuel cost adjustment rate, as calculated using the average fuel price for each quarter, shall be applied to the electricity consumed during the fuel cost adjustment rate application period corresponding to such quarter.

(a) The fuel cost adjustment rate application period corresponding to each quarter shall be as follows, except for the cases described in (b) above.

Quarter	Fuel cost adjustment rate application period
January 1 to March 31 of each year	Period from the meter reading day of June through the day before the meter reading day of September of the same year
April 1 to June 30 of each year	Period from the meter reading day of September through the day before the meter reading day of December of the same year
July 1 to September 30 of each year	Period from the meter reading day of December through the day before the meter reading day of March of the following year
October 1 to December 31 of each year	Period from the meter reading day of March the following year through the day before the meter reading day of June of the same year

(b) For the flat-rate system, the fuel cost adjustment rate application period corresponding to each quarter shall be as provided in (a). In this case, the meter reading day referred to in (a) shall be the meter reading day of the meter reading area the customer belongs to. However, for Temporary Light, Temporary Power and Agricultural Power B, when the billing period begins on the commencement day of the contract use period and ends on the day before the corresponding day of the following month, or begins on the corresponding date of each month and ends on the day before the corresponding day of the following

month, the meter reading day referred to in (a) shall be such corresponding day.

#### (D) Fuel cost adjustment amount

#### (a) Flat-rate system

#### a. Flat-Rate Lighting and Public Street Lighting A

The fuel cost adjustment amount shall be the sum total of the fuel cost adjustment rate for each item of contract load equipment as obtained in (B).

b. Temporary Light A, Temporary Power and Agriculture Power B
 The fuel cost adjustment amount shall be the fuel cost adjustment rate for each of the contract categories as obtained in (B).

#### (b) Meter-rate system

The fuel cost adjustment amount shall be determined by applying the fuel cost adjustment rate obtained in (B) to the energy consumption of that month. However, for Residential Lighting A, the fuel cost adjustment amount for the minimum charge shall be determined by applying the fuel cost adjustment rate obtained in (B) to the energy consumption to which the minimum charge is applicable. The fuel cost adjustment rate obtained in (B) to the amount of the energy consumption for that month less the energy consumption to which the minimum charge is applicable.

#### (2) Base Rate

The base rate shall be the value when the average fuel price fluctuates by \$1,000. The base rate shall be exclusive of the sum equivalent of the consumption and other taxes.

#### (A) Flat-rate system

## (a) Flat-Rate Lighting and Public Street Lighting A

The base rate per month for each item of contract load equipment shall be as shown below.

	Per lamp up to 20 watts	¥0.878
	Per lamp over 20 and up to 40 watts	¥1.756
Lamps	Per lamp over 40 and up to 60 watts	¥2.633
	Per lamp over 60 and up to 100 watts	¥4.389
	Per lamp over 100 watts, for every 100 watts	¥4.389
	Per small-scale appliance up to 50 volt-amperes	¥1.311
Small-scale	Per small-scale appliance over 50 and up to 100 volt-amperes	¥2.622
appliances	Per small-scale appliance over 100 volt-amperes, for every 50	¥1.311
	volt-amperes	₹1.311

## (b) Temporary Light A

The base rate per day (based on the total (input) capacity of the contract load equipment) shall be as shown below.

Total capacity up to 50 volt-amperes	
Total capacity over 50 volt-amperes and up to 100 volt-amperes	
Total capacity over 100 volt-amperes and up to 500 volt-amperes, per 100	
volt-amperes	
Total capacity over 500 volt-amperes and up to 1 kilovolt-ampere	
Total capacity over 1 kilovolt-ampere and up to 3 kilovolt-amperes, per	¥0.707
kilovolt-ampere	

## (c) Temporary Power

The base rate shall be as expressed below. It should be noted that, if the contract power is 0.5 kilowatts, the base rate shall be half of the base rate for 1-kilowatt of contract power.

Per day for one kW of contract power	¥0.743
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## (d) Agricultural Power B (for grain thrashing)

The base rate shall be as shown below.

Contract power	0.5 kW	1 kW	2 kW	3 kW	4 kW	5 kW
Per day	¥0.186	¥0.372	¥0.743	¥1.115	¥1.487	¥1.858

## (B) Meter-rate system

The base rate shall be shown below.

Per kWh	¥0.113
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## (3) Notification of Fuel Cost Adjustment Rate, etc.

KYEPCO shall place a notice at its offices concerning the average crude oil price per kiloliter, the average liquefied natural gas price per ton, and the average coal price per ton for each quarter referred to in (1) (A), as well as the fuel cost adjustment rate as obtained in (1) (B).

#### Schedule 2: Calculation of Total Capacity of Contract Load Equipment

(1) If there is a discrepancy between the number of outlets and electrical appliances, the total

capacity of the contract load equipment shall be determined based on the value obtained as described below.

- (A) If the number of electrical appliances exceeds that of outlets, the total capacity shall be the total (input) capacity of the electric appliances depending on the number of outlets. In this case, the electric appliances shall be taken into account in descending order from that with the largest input.
- (B) If the number of electrical appliances is less than that of outlets, the total capacity shall be the total (input) capacity of the electric appliances plus the value obtained by (2) below depending on the number of outlets in excess of the number of electric appliances.
- (2) If the capacity of the electric appliances to be connected to the outlet is yet to be determined, the value obtained as follows shall be the total capacity of the contract load equipment.
  - (A) For houses, apartments, dormitories, hospitals, schools, and temples

Per outlet: 50 volt-amperes

(B) For cases other than those above

Per outlet: 100 volt-amperes

#### Schedule 3: Converted Input Capacity of Load Equipment

(1) Electric Appliances for Illumination Purposes

The converted capacity of electric appliances for illumination purposes shall be pursuant to (A),

(B), (C) and (D) below.

## (A) Fluorescent lamps

	Converted capacity		
	Input (volt-amperes)	Input (watts)	
Higher mayyar fastar	Rated power consumption of the tube bulb	Rated power	
Higher power factor	(watts) ×150%	consumption of the tube	
I	Rated power consumption of the tube bulb	bulb	
Lower power factor	(watts) ×200%	(watts) ×125%	

#### (B) Neon tube lamps

Cacandary valtaga		Converted capacity	
Secondary voltage (volts)	Input (volt-amperes)		Input (watta)
(voits)	Higher power factor	Lower power factor	Input (watts)
3,000	30	80	30
6,000	60	150	60
9,000	100	220	100

12,000	140	300	140
15,000	180	350	180

## (C) Instant-start lamps

Tube length (millimeters)	Converted capacity		
	Input (volt-amperes)	Input (watts)	
999 or less	40	40	
1,149 or less	60	60	
1,556 or less	70	70	
1,759 or less	80	80	
2,368 or less	100	100	

# (D) Mercury lamps

	Converted capacity		
Output (watts)	Input (volt	Innert (contto)	
	Higher power factor	Lower power factor	Input (watts)
40 or less	60	130	50
60 or less	80	170	70
80 or less	100	190	90
100 or less	150	200	130
125 or less	160	290	145
200 or less	250	400	230
250 or less	300	500	270
300 or less	350	550	325
400 or less	500	750	435
700 or less	800	1,200	735
1,000 or less	1,200	1,750	1,005

# (2) Induction Motors

- (A) Single-phase induction motors
  - (a) The converted (input) capacity (in kilowatts) of single-phase induction motors whose rated capacity is expressed in horsepower shall be obtained by multiplying the value by the conversion rate of 100.0 percent.
  - (b) The converted capacity of those with a rated capacity expressed in watts shall be as shown below.

Output (watts)	Converted capacity
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	Input (volt	Input (vyatta)			
	Higher power factor	Lower power factor	Input (watts)		
35 or less		160			
45 or less		180			
65 or less		230			
100 or less	250	350	Output (watts)		
200 or less	400	550	×133.0%		
400 or less	600	850			
550 or less	900	1,200			
750 or less	1,000	1,400			

# (B) Three-phase induction motors

Converted capacity (input) (kilowatts)					
Output (horsepower) ×93.3%					
Output (kilowatts) ×125.0%					

# (3) X-ray Equipment

The converted capacity of X-ray equipment shall be as described below.

If the X-ray equipment covers two or more equipment categories, the capacity shall be the larger of the converted capacities.

Equipment categories (including portable and movable types)	Maximum rated voltage of tube (kilovolts at peak)	Tube current (short-time rated current) (milli-amperes)	Converted capacity (input) (kilovolt-amperes)
Therapeutic equipment			Maximum value of rated primary input (kilovolt-amperes)
Diagnostic	95 kilovolts at peak	20 milli-amperes or less	1
equipment	or less	More than 20 milli-amperes, and 30 milli-amperes or less	1.5
	I		2
		More than 50 milli-amperes, and 100 milli-amperes or less	3

		More than 100				
		milli-amperes, and 200	4			
		milli-amperes or less				
		More than 200	_			
		milli-amperes, and 300	5			
		milli-amperes or less				
		More than 300milli-amperes, and 500 milli-amperes or	7.5			
		less	7.5			
		More than 500				
		milli-amperes, and 1,000	10			
		milli-amperes or less				
		200 milli-amperes or less	5			
		More than 200				
	More than 95	milli-amperes, and 300	6			
	kilovolts-peak and 100 kilovolts at peak or less	milli-amperes or less				
		More than 300 milli-amperes, and 500	8			
		milli-amperes or less	o			
		More than 500				
		milli-amperes, and 1,000	13.5			
		milli-amperes or less				
	More than 100 kilovolts-peak and 125 kilovolts at peak	500 milli-amperes or less	9.5			
		More than 500				
		milli-amperes, and 1,000	16			
	or less	milli-amperes or less				
	More than 125	500 milli-amperes or less	11			
	kilovolts-peak and	More than 500				
	150 kilovolts at peak	milli-amperes, and 1,000	19.5			
	or less	milli-amperes or less				
		mmi-amperes or ress				
	Capacitor capacity		1			
Capacitor discharge	0.75 microfarad or less	75 microfarad or less				
diagnostic	More than 0.75 microf	More than 0.75 microfarad and 1.5 microfarads or				
equipment	less	2				
	More than 1.5 microfa	arads and 3 microfarads or less	3			

# (4) Electric Welders

The converted capacity of electric welders shall be the value obtained by the formula below.

(A) If the appliances conform to the Japan Industrial Standards (exclusive of those with built-in capacitors):

Input (kW) = Maximum rated primary input (kilovolt-amperes)  $\times$  70%

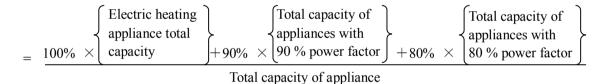
(B) In cases other than those in (A) above:

#### (5) Others

- (A) If obtaining the values pursuant to (1), (2), (3) or (4) is deemed inappropriate, the converted (input) capacities of electric appliances shall be determined by agreement between the customer and KYEPCO based on the actual value of the measurement. However, the converted (input) capacity may be the value of rated power consumption if special circumstances so require.
- (B) The (input) capacity for indicating lamps that are integrated parts of power appliances and indispensable for the use of such power appliances shall be determined on the basis that such lamps and such power appliances constitute a single item of contract load equipment.
- (C) Electric appliances that evidently serve as standby equipment shall not be included in the determination of the contract load equipment capacity.

## Schedule 4: Weighted Average Power Factor Determination

The weighted average power factor shall be calculated using the formula below: Weighted average power factor (%)



#### Schedule 5: Criteria for Phase-advanced Capacitor Installation Capacity

The capacity of the phase-advanced capacitor shall be as follows.

- (1) For Electric Appliances for Illumination Purposes
  - (A) Fluorescent lamps

If the phase-advanced capacitor is built inside the fluorescent lamp, the installation capacity shall be as shown below.

Service voltage	Rated consumption power of tubes	Capacitor installation capacity				
(volts)	(watts)	(microfarads)				
	10	3.5				
	15	4.5				
100	20	5.5				
	30	9				
	40	14				
200	40	3.5				

60	4.5
80	5.5
100	7

# (B) Neon tube lamps

Secondary voltage (volts)	Capacitor installation capacity
	(microfarads)
3,000	20
6,000	30
9,000	50
12,000	50
15,000	75

# (C) Mercury lamps

Output (watts)	Capacitor installation capacity (microfarads)					
Output (watts)	100 volts	200 volts				
40 or less	20	4.5				
60 or less	30	7				
80 or less	40	9				
100 or less	50	9				
125 or less	50	9				
200 or less	75	11				
250 or less	75	15				
300 or less	100	20				
400 or less	150	30				
700 or less	250	50				
1,000 or less	350	75				

# (2) For Induction Motors

(A) If the capacitors are installed separately, the following shall be used:

# (a) Single-phase induction motors

Rated output of	0.1	0.2	0.25	0.4	0.55	0.75	
Capacitor installation	Service voltage 100 volts	50	50	75	75	75	100
	Service voltage 200 volts	20	20	20	30	30	40

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#### (b) Three-phase induction motors (at a service voltage of 200 volts)

Rated output	Horse-power	1/4	1/2	1	2	3	5	7.5	10	15	20	25	30	40	50
of motor	Kilowatts	0.2	0.4	0.75	1.5	2.2	3.7	5.5	7.5	11	15	18.5	22	30	37
Capacitor installation capacity		10	15	20	30	40	50	75	100	150	200	250	300	400	500
(microfarads)		10	13	20	30	40	30	73	100	150	200	230	300	400	300

#### (B) If a common capacitor is installed, the following shall be used:

If a capacitor is installed on two or more motors collectively due to unavoidable circumstances, the capacity of the capacitor shall be the sum total of the capacitor capacity as set forth in (A) corresponding to the rated output of each motor.

# (3) For Electric Welders (at a service voltage of 200 volts)

#### (A) AC arc welders

Maximum											45 or
input of	3 or	5 or	7.5 or	10 or	15 or	20 or	25 or	30 or	35 or	40 or	more and
welder (kilovolt-	more	more	more	more	more	more	more	more	more	more	less
amperes)											than 50
Capacitor											
installation	100	150	200	250	300	400	500	600	700	800	900
capacity											
(microfarads)											

#### (B) AC resistance welders

The capacity for an AC resistance welder shall be 50 percent of the capacities of those set forth in (A).

#### (4) Others

The capacity of electric appliances, if the determination of such pursuant to (1), (2) and (3) above is deemed inappropriate, shall be agreed upon between the customer and KYEPCO with due consideration given to the features of such appliances.

#### Schedule 6: Method of Calculating Contract Power and Others

The contract capacity or contract power in cases of (3) (D) (b) of 17 (Residential Lighting Service) or (4) (B) of 20 (Low Voltage Power Service) shall be determined as described below. It should be noted that the power factors (100 percent) shall be applied in the contract power determination.

(1) If the power supply method and supply voltage is in AC, single-phase two-wire, at a standard voltage of 100 or 200 volts, or in AC, single-phase three-wire, at a standard voltage of 100 and 200 volts, the following formula shall apply:

Rated current of the contract main circuit breaker (A)  $\times$  voltage (V)  $\times \frac{1}{1,000}$ 

If the power is supplied in AC, single-phase three-wire, at a standard voltage of 100 and 200 volts, the voltage shall be deemed 200 volts.

(2) If the power supply method and supply voltage is AC, three-phase three-wire, at a standard voltage of 200 volts, the following formula shall apply:

Rated current of the contract main circuit breaker (A)  $\times$  voltage (V)  $\times 1.732 \times \frac{1}{1,000}$ 

### **Schedule 7: Agreement Regarding Energy Consumption**

The criteria for determining energy consumption (kWh) by negotiation shall be, as a rule, as detailed below.

- (1) When based on past energy consumption:
  - The energy consumption shall be determined using any of the following manners. It should be noted that, if there was a change in the contract current, contract capacity or contract power during the period subject to such agreement or during the billing period when measurement was made for past energy consumption, the value shall be determined while taking into account the ratio of the values attained by multiplying the number of days in each billing block by the respective contract current, contract capacity or contract power.
  - (A) When based on the energy consumption of the previous month or the same month of the previous year:

Energy consumption of the previous month

or the same month of the previous year

Number of days in the billing period of the previous month or that of the same month of the previous month

Number of days in the period subject to the agreement

(B) When based on the energy consumption of the previous three months:

Energy consumption of the three months immediately preceding

Number of days in the billing period of subject to the agreement immediately preceding three months

- (2) When based on the capacity of the load equipment used and the hours of usage:

  The energy consumption shall be the sum total of the values obtained by multiplying the (input) capacity of the load equipment used by the respective number of usage hours.
- (3) When based on the energy consumption measured with the replaced meter when the number of days in the period the measurement was made with the replaced meter is ten (10) days or more:

Energy consumption measured with replaced meter

Number of days in the period the measurement was made

with replaced meter

Number of days in the period subject to the agreement

(4) When based on the measurement by the meter installed as a reference:

The energy consumption shall be the energy consumption measured by the meter installed as a reference. Further, such meter shall be installed pursuant to 56 (Installation of Meters and Others)

(5) When corrected for the error exceeding the tolerance:

Measured power 100% + (±Relative error)

Further, if the occurrence time of errors exceeding the tolerance cannot be confirmed, agreement shall be made on the energy consumption during and after the following month.

- (A) If measured upon the customer's request, it will be the month of the request.
- (B) If measured upon discovery by KYEPCO, it will be the month such discovery was made.

## Schedule 8: Basic Formula for Per-Diem Calculation

- (1) The basic formulas for per-diem calculation are detailed below.
  - (A) For per-diem calculation of the demand charge, minimum charge, minimum monthly charge, or net charge for prompt payment for the flat-rate system, the following shall be used:

Corresponding rate for the month  $\times$  Number of days for per-diem calculation Number of days in meter reading period

However, if the provisions of (1) (C) of 27 (Billing) are applicable, the following shall be used:

Number of days for per-diem calculation
Number of days in meter reading period to be a

to be replaced by

Number of days for per-diem calculation
Number of calendar days

- (B) For per-diem calculation of energy charges by energy consumption blocks for Residential Lighting services, the following shall be used:
  - (a) Residential Lighting A

Energy consumption subject to minimum charge = 12 kWh× Number of days for per-diem calculation Number of days in meter reading period

Energy consumption subject to the minimum charge shall mean the power or energy consumption to which the minimum charge as defined in (A) applies.

(b) Residential Lighting B and C

Energy consumption subject to the first block rate =

120 kWh × Number of days for per-diem calculation Number of days in meter reading period Energy consumption subject to the first block rate refers to power or energy consumption with an energy charge per kilowatt-hour for the first 120 kilowatt-hours.

Energy consumption subject to the second block rate =

180 kWh × Number of days for per-diem calculation
Number of days in meter reading period

Energy consumption subject to the second block rate refers to power or energy consumption with an energy charge kilowatt-hour exceeding 120 kilowatt-hours and up to 300 kilowatt-hours.

- (c) The unit for the power or energy consumption subject to the minimum charge, the first block rate and second block rate, determined pursuant to (a) or (b), shall be one (1) kilowatt-hour. Any fraction of 0.5 kilowatt-hour or more shall be expressed as one (1) kilowatt-hour, and any fraction less than 0.5 kilowatt-hour shall be disregarded.
- (d) If (1) (C) of 27 (Billing) is applicable, the following condition applies:

Number of days for per-diem calculation Number of days in meter reading period

in (a) and (b) shall be replaced by

Number of days for per-diem calculation Number of calendar days

- (C) Billing for the energy charge based on per-diem calculation:
  - (a) For (1) (A) or (C) of 27 (Billing):

The energy charge shall be determined according to the amount of energy consumption during a billing period.

(b) For (1) (B) of 27 (Billing):

The energy charge during a billing month shall be calculated by dividing the energy consumption during such billing month into two blocks proportional to the values obtained by multiplying the respective contract current, contract capacity or contract power by the number of days in the period before and after the applicable rates changed. For a customer under Low Voltage Power, Temporary Power (only with the meter-rate system) or Agricultural Power (only with the meter-rate system), when the billing month includes days of both summertime and other seasons, the energy charge is determined based on the ratio of values obtained by multiplying the number of days in each period treated differently for

billing purposes, by the contract power. However, if the measured value is confirmed, it shall be based on such value.

(2) The number of days in the meter reading period as in (1) (A) and (B) for cases of the commencement of supply service or the termination of the electric service contract shall be as follows:

#### (A) For supply service commencement

It shall be the number of days in the period beginning on the meter reading day of the meter reading area to which the customer belongs immediately before the supply commencement and ending on the day before the meter reading day immediately after such commencement.

#### (B) For supply service termination

It shall be the number of days in the period beginning on the meter reading day immediately before the supply termination day and ending on the day before the day KYEPCO notifies the customer in advance as the next meter reading day.

- (3) The number of days in the meter reading period as in (1) (A) and (B) in cases of commencement of supply service or termination of the electric service contract for the flat-rate system or the case of (7) of 26 (Measurement of Energy Consumption and Other Items) shall be pursuant to (2) above. In this case, the meter reading day in (2) shall be the meter reading day of the meter reading area to which the customer belongs, and the day KYEPCO notifies the customer in advance as the next meter reading day shall be the meter reading day of the meter reading area to which the customer belongs immediately after such termination.
- (4) The number of calendar days in (1) (A) and (B) for cases of the commencement of supply service or the termination of the electric service contract shall be as follows:
  - (A) For supply service commencement

The number of calendar days shall be the number of days in the month of the preset meter reading day (and shall correspond to the beginning of the meter reading period in which the commencement day is included) of the meter reading area to which the customer belongs.

#### (B) For supply service termination

The number of calendar days shall be the number of days in the month of the preset meter reading day (and shall correspond to the beginning of the meter reading period in which the day before such termination is included) of the meter reading area to which the customer belongs.

(5) When the net charge for prompt payment is to be calculated on a per-diem basis for the period when the supply is suspended, the number of days subject to the per-diem calculation in (1) (A) shall be the number of days during such suspension. In this case, the day of suspension shall be included and the day of resumption shall be excluded from the period of suspension. If the service is resumed on the same day the service is suspended, such day shall not be included in

the period of suspension.

### Schedule 9: Standard Design Criteria

#### (1) Purpose

- (A) Standard design criteria (hereinafter referred to as "criteria") shall apply to the calculation of construction costs stipulated in "VIII Contribution to Construction Costs." Issues not defined by the criteria shall conform to designs which are recognized as technically appropriate, based on the technical standards for electric facilities as defined in laws and ordinances, based on other laws and ordinances, or based on KYEPCO's design standards. In this case, such design will be defined as the standard design.
- (B) If special facilities are needed due to special topographic needs and other circumstances when it is difficult to meet the criteria, a specific design shall be used which is recognized as technically appropriate, notwithstanding (A) above, and such design will be defined as the standard design.
- (C) Standards for materials and equipment shall conform to the standards of the JIS, the standards of the FEPC (Federation of Electric Power Companies of Japan) and others.

#### (2) Units Used and Other Items

Units shall be expressed using the symbols shown below.

Unit	Symbol			
Volt	V			
Kilovolt	kV			
Ampere	A			
Kilometer	km			
Meter	m			
Millimeter	mm			
Square millimeter	mm <sup>2</sup>			

#### (3) Power Lines

#### (A) General standards

(a) The standard tolerable limit of voltage drop of a power line shall be shown below. The power line is defined as a feeder from a delivery point to the power plant's or substation's outlet closest to the delivery point or outgoing side terminal of the supply transformer.

Nominal voltage	Low voltage		High voltage
(V)	100	200	6,600
Tolerable limit of voltage drop (V)	6	20	600

#### (b) Locations

The locations where power lines start, branch out, and pass through shall be selected with due consideration for future prospects, siting and environmental, work/construction, maintenance and economic aspects.

#### (c) Types

Power lines shall be defined as overhead power lines. However, when it is not legally possible to install overhead power lines or it is inappropriate to install them for technical, economical, or community-based reasons, installation of underground or other power lines shall apply.

#### (B) Overhead Power Lines

#### (a) Installation

- a. Except in technically difficult cases, overhead power lines shall be constructed in the most economical manner by either installing a new power line independently, sharing a pole with another overhead power line, or replacing the cable.
- b. If a high-voltage overhead power line is installed independently, a single feeder circuit shall be installed, in principle.

#### (b) Supports

- a. Overhead power line supports shall, in principle, be either concrete poles or hybrid material poles. KYEPCO shall select technically and economically appropriate pole in accordance with laws and ordinances, taking into account the status of the supply facilities already installed in the area.
- b. Other suitable supports may be used for overhead power line support if the use of concrete or hybrid material poles seems technically or economically improper.

#### (c) Standard spans

The standard spans of overhead transmission lines are shown in the table below. Spans different from those given in the table may, however, be used in cases in which the construction of power lines with a standard span is impossible due to geographical or land conditions.

Area installed	Standard span (m)
Urban area	40
Other areas	50

#### (d) Length of support structure

The length of support structures for overhead transmission lines is chosen as shown in the

table below. Structures with lengths different from this table may, however, be used to avoid unfavorable topographical conditions, or to support power lines running across roads, or when it is required to keep a necessary distance from trees, architectural structures, other transmission lines, etc. or when transformers are installed on such supporting structures.

A mag imptalled	Low voltage	High voltage	Parallel spanning of high/low	
Area installed (m)		(m)	voltage lines (m)	
Urban area	9	10	12	
Other areas	9	9	10	

#### (e) Pole structure arrangement

- a. Vertical pole structure arrangement is normally used for low-voltage overhead power lines. Horizontal pole structure arrangement may, however, be used, if adopting vertical pole arrangement is considered unfavorable from technical or maintenance aspects or if the line is used for low voltage only.
- b. Horizontal pole structure arrangement is normally used for high-voltage overhead power lines. Vertical pole structure arrangement may, however, be used, if adopting horizontal pole arrangement is considered unfavorable from technical or maintenance aspects.
- c. As for the arm materials, lightweight metal is used for horizontal pole arrangement while rack metal, etc. is used for low-voltage overhead lines and high-voltage direct metal fittings for high-voltage overhead lines for a vertical pole arrangement.

### (f) Stays and support poles

Stays and support poles are installed to share the stress on the overhead power line support. However, a stay pole may be used for a stay if the topographical features so require.

#### (g) Insulators

Insulators used for the overhead power lines are given in the table below.

		For spans	For cramping
	Low-voltage	Low-voltage pin insulator	Low-voltage terminal
voltage	line	Low-voltage terminal insulator	insulator
Low	Service line	Low-voltage pin insulator, low-voltage terminal insulator, insulator, etc.	

	High-voltage solid insulator	High-voltage strain insulator
High voltage line		Terminal insulator with
High-voltage line	Insulator for span with current	current limiting arcing horn
	limiting arcing horn	

#### (h) Type and sizes of conductors

- a. Aluminum conductors are used for overhead power lines while hard-copper conductors are used for low-voltage service lines. Other suitable materials may be used for the conductor if the use of aluminum or hard-copper conductors seems improper from technical or economical aspects.
- b. Insulated conductors are used for overhead transmission lines and overhead service lines. However, bare conductors may be used in places where no danger of electric shock is anticipated, such as for the neutral conductors of low-voltage overhead transmission lines, or where the span of the lines is long and access is very limited, such as for a portion of a high-voltage overhead line crossing a body of water such as a strait.
- c. The size of conductors is selected so as to meet legal restrictions and by considering the allowable current, short circuit current, voltage drop, and mechanical strength. The types and minimum size of conductors are chosen in accordance with Table 1, and the conductor sizes to be applied are chosen according to Table 2.

(Table 1)

	Insulated	Bare aluminum	
	Aluminum conductor	Hard copper conductor	conductor
Low-voltage	Not less than 25 mm <sup>2</sup>		Not less than 25 mm <sup>2</sup>
conductor	Not less than 23 mm		Not less than 25 min
High-voltage	Not less than 25 mm <sup>2</sup>		Not less than 120 mm <sup>2</sup>
conductor	Not less than 23 mm		Not less than 120 mm
Low-voltage service		Not less than 2.6 mm	
line		Not less than 2.0 mm	

(Table 2)

Continuous allowable current (A)							
Conductor type and		OC	OE	OW	DV conductor		Bare
	size	conductor	conductor	conductor	Two conductors	Three conductors	conductor
	2.6 mm				38	34	
ucto	3.2 mm				50	44	
ond	14 mm <sup>2</sup>				70	62	
per c	22 mm <sup>2</sup>				92	80	
Hard copper conductor	38 mm <sup>2</sup>			153	130	113	
Hard	60 mm <sup>2</sup>			206	174	152	
	100 mm <sup>2</sup>			283	238	209	
	25 mm <sup>2</sup>		107	90			135
um	58 mm <sup>2</sup>		177	145			225
Aluminum conductor	120 mm <sup>2</sup>		271	220			400
Alu	200 mm <sup>2</sup>	473					540
	400 mm <sup>2</sup>	723					850

## (i) Type and capacity of pole transformer

## a. Type of pole transformer

Pole transformers are divided into two types: single-phase and unit-type. The most suitable type of transformer is chosen taking into consideration technical and economical aspects according to the power supply facilities already in operation.

## b. Capacity of pole transformer

As for the capacity of the pole transformer, the requisite minimum is chosen from the table below, which satisfies technical and economical requirements.

Classification	Transformer capacity (kilovolt-ampere)	
Single phase	10, 20, 30, 50, 100	
Unit-type	20+10, 30+20, 50+30, 100+50	

#### (j) Connection of power transformers

For three-phase power loads, either two single-phase transformers or a unit-type transformer (housing two single-phase transformers) are used in the V-connection configuration. However, a delta-connected unit consisting of three single-phase transformers is used if it is favorable from technical and economical aspects.

(k) Switching devices at the transformer primary circuit

Cut-out switches for protection are furnished at the primary side of the transformers.

(l) Installation of line disconnecting switches

Line disconnecting switches are installed at the points necessary for maintenance work of high-voltage overhead power lines.

(m) Installation for lightning protection

Arresters, overhead grounding wires, and other equipment necessary for lightning protection are furnished along the overhead power lines.

## (n) Installation for special areas

For overhead power lines installed in areas prone to pollution from salt, soot or gas or for overhead power lines built on soft ground or in windy areas, structures that can withstand salt, soot and gas contamination or have enough strength even on soft land or in windy areas are adopted.

(o) Total length of overhead service lines

The total length of overhead service lines is 50 meters or shorter. However, the length shall be 60 meters or shorter in places where supporting structures exist on the route.

(p) Direct metal fittings and arms for service lines

Direct metal fittings and arms for service lines are installed in the following manner.

- a. Direct metal fittings are used in places where service lines exist. In cases where low-voltage rack metals or transformers are installed, the metal fittings are placed onto the lower side of each installation.
- b. In the following cases, arms for service lines are used in place of direct metal fittings:
  - (i) when securing the path for an ascending and descending pole is difficult;
  - (ii) where OW wires exist;
  - (iii) where more than three service lines exist in the same place on the service wire pole; or
  - (iv) where there is a service line of 22 square millimeters or more in length.

#### (C) Underground Cable Lines

#### (a) Installation

Normally, a conduit-type installation is used for underground cable line laying; however, direct laying or laying in culverts is used in the cases described below.

a. Direct laying system

Direct laying is adopted for places where heavy vehicles will not pass over the cable route and where re-excavation of the cable route does not cause any trouble to other installations inside the premises.

b. Culvert laying system

A culvert laying system is adopted for places where a large number of cables, including the one to be laid for the occasion, are laid in the same location.

#### (b) Selection of cables

The types and sizes of the cables used for underground lines are selected from the table below. It should be noted that, as a rule, the minimum in the table is chosen in consideration of the allowable current, short circuit current, voltage drop, installation methods, etc.

The allowable current of cables is determined pursuant to the calculation method of the Japanese Cable Standard (JCS 168) by considering various conditions for installation.

Ту	ре	Size (mm²)
Cross-linked	Copper conductor	14, 22, 38, 60, 100, 200, 325, 725
polyethylene cable	Copper conductor	14, 22, 38, 60, 100, 200, 323, 723

#### (c) Method of installation

The most favorable method will be adopted by considering technical and economical conditions.

#### (d) Installation of switchgear towers and transformer towers

- a. Switchgear towers are installed in places necessary for maintenance work of underground cables.
- b. Transformer towers are installed in cases in which the installation of transformers on the ground level is necessary.

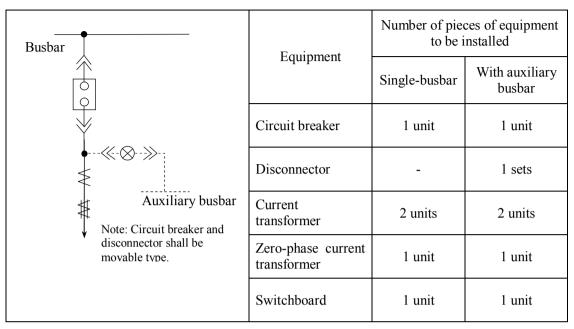
#### (4) Substations

#### (A) General standards

An outgoing facility shall be installed for the power line in accordance with other facilities of the substation.

#### (B) Connection method

The standards of line connection at a substation's outgoing facilities and the number of pieces of major equipment to be installed shall conform to the specifications below.



Note: 1. Dotted line indicates a case in which an auxiliary busbar is used.

egend	Circuit breaker	Disconnector	Current transformer	Zero-phase current transformer
Leg	-00		<b>→</b>	

#### (C) Circuit breakers

- (a) A minimum capacity circuit breaker of the type normally used by KYEPCO shall be installed based on the maximum load current and the short-circuit capacity calculated for the present or planned power system configuration.
- (b) Future system configurations shall be planned based on a 10-year plan.

#### (D) Disconnector

A minimum capacity disconnector of the type normally used by KYEPCO shall be installed based on the maximum load current.

## (E) Current transformer

A minimum capacity current transformer of the type normally used by KYEPCO shall be installed based on the maximum load current.

#### (F) Switchboard

A switchboard shall be equipped, as a rule, with those devices necessary for system operation such as ammeters, switches for circuit breaker operation, protective devices for

automatic circuit cut-off upon occurrence of short circuits or ground faults. A watt-hour meter, a reactive power meter, and a voltmeter shall be installed as necessary.