

CHAPTER 10

CONSUMER COMPLAINTS

10.1 GENERAL

Complaints in respect of new connections, meter reading and billing, electric supply failures and other matters relating to supply of electric power services shall be handled by DISCO expeditiously. In order to redress consumer complaints, Consumer Services Centers shall be approached for all types of complaints to be lodged by the consumers. Additionally, One Window Operations are established in DISCO offices wherein all types of complaints are received from the consumers who are given acknowledgement of the same with definite dates for their replies according to time frame for handling and redressal of such complaints.

DISCO shall handle a complaint in accordance with the procedure as laid down hereunder.

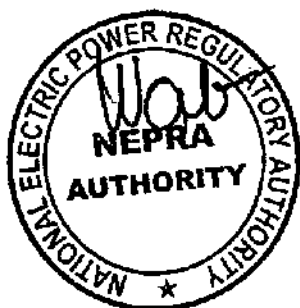
10.2 COMPLAINTS REGARDING NEW CONNECTIONS

Complaints in respect of non-availability of Application Form, Power Supply Contract, other material, delay in issuance of Demand Notices, etc. shall be attended properly. Connections shall be given as per procedure and time schedule laid down in this manual.

10.3 COMPLAINTS REGARDING BILLING

10.3.1 Common billing complaints including but not limited to the following shall be entertained for redressal /reply within the time as given below:

- (a) Errors in bills arising from wrong meter readings, wrong calculation of charges, etc (within 7 days from the receipt of complaint).
- (b) Tariff changes.(within 30 days from the receipt of complaint)
- (c) Replacement of defective meters as soon as possible but not later than 02 billing cycles
- (d) Wrong application of LPS, e.g. late receipt of bank scrolls or loss of a scroll (within 3 days of receipt of complaint).
- (e) Adjustments arising on various matters including extension of due date and waiver of LPS (within 3 days from the receipt of complaint).
- (f) The delivery of bills is delayed and resultantly the consumers do not get seven clear days for payment. In such cases the competent officer(s) of DISCO can extend the due date for payment without LPS.
- (g) Complaints regarding detection bills are required to be settled by DISCO within 15 days from the date of receipt of complaint.



- (h) The 1st Bill for a new connection shall be issued within two months of the date of connection. Such complaints need to be redressed within fifteen days. If delivered later, it should have appropriate slab corresponding to the number of months for which the accumulated reading bill is delivered.
- (i) Inclusion of paid amounts in next month's bills. Revenue Officers (ROs) as well as Bank Managers, Incharge Post Office where the last bills were paid are competent to amend the bills (same day) upon production of original previous paid bill.
- (j) Arithmetical Errors: RO/AM(CS) and SDO/AM(O) are both competent to correct such bills forthwith upon receipt of the complaint.
- (k) Issuance of duplicate bill: SDO/AM(O) and RO/AM(CS) and Incharge Customer Services Centers are competent to issue the duplicate bills on the same day. Consumers having internet facility can also download their electricity bills from the DISCO's website.
- (l) Change of Tariff: The complaints pertaining to change of tariff shall be resolved within 30 days from the date of receipt of the complaint.

10.3.2 All the above complaints regarding billing shall be registered in the Sub Divisional Office or Consumer Service Center or One-Window Operation in DISCO offices wherein dates for their rectification shall be given to the complainants as per procedure and time frame for handling and redressal of complaints. All these complaints shall also be monitored by DISCO Complaint Cells.

10.4 COMPLAINTS REGARDING FAILURE OF ELECTRIC SUPPLY

10.4.1 Common complaints regarding failure of electric supply are mentioned as below:

- (a) Individual complaints of consumers regarding failure/fluctuation of supply voltage other complaints of technical nature which can be rectified locally.
- (b) Collective complaints due to fault on 11 kV feeder.
- (c) Collective complaints due to fuse blown up on 11 kV side of distribution transformer.
- (d) Collective complaints due to damage of distribution transformer.
- (e) Frequent Tripping of 11 kV feeders.
- (f) Touching of branches of trees with the HT/LT lines.
- (g) Defect in HT/LT jumpers, insulator, etc.
- (h) Entangling of string used for kite flying with HT/LT lines.
- (i) Leakage of current in poles/structures/other equipment installed on the system.
- (j) Low voltage at consumer's premises.
- (k) Fluctuations in the system due to deposit on joints of copper/aluminum conductor.
- (l) Substandard quality of supply/maintenance.
- (m) Any other technical complaint.



10.4.2 The complaints shall normally be attended in the following order of priority:

- (a) Leakage of current immediately on receipt of such complaint.
- (b) Collective complaints of consumers.
- (c) Individual complaints of consumers
- (d) In case of damage of transformer, the supply shall be restored through trolley mounted transformer/alternate transformer till replacement of damaged transformer. Efforts will also be made to restore supply of affected consumers from alternate sources.
- (e) In areas where DISCO's transformer repair workshops are not available or there is no capacity of repair of damaged transformers on urgent basis, DISCO may approve private vendors for repair of transformers
- (f) Trimming of branches of trees touching the electric lines as well as other preventive maintenance work shall be carried out in order to avoid unnecessary tripping/damage to electric installations as per well-advertised program.
- (g) The complaints regarding low voltage at consumer's premises shall be investigated by Sub Divisional Officer/AM(O) and remedial measures be taken so as to improve the voltage thereby reducing the chances of damage to electric gadgets of the consumers.
- (h) The complaints regarding sub-standard quality of supply shall also be investigated by the Sub-Divisional Officer/AM(O) and remedial measures be adopted so as to improve the same.

10.4.3 At the end of each shift in the complaint office/call center, an abstract shall be prepared as follows:

- (a) Number of complaints received
- (b) Number of complaints attended
- (c) Number of complaints lying un-attended with Sr. Nos. and reasons.

10.4.4 DISCO shall have independent Complaint Offices to attend such complaints. These complaint offices shall work on 24-hours basis even during holidays. The working of these complaint offices is to be supervised by higher officers as well as DISCO's Complaint Cells.

10.4.5 Special arrangements be made for handling complaints of ladies, senior citizens and handicapped consumers.

10.5 CONSUMER SERVICES

DISCO shall develop online complaint management system for online filing of complaints by the consumers. Moreover, DISCO shall place the following on its website for information of general public:

- (a) Consumer Service Manual
- (b) Performance Standards (Distribution) Rules, 2005
- (c) Consumer Eligibility Criteria, 2003
- (d) Tariff terms and conditions



CHAPTER 11

DISTRIBUTION AND CONSUMER SUB STATION

11.1 GENERAL

In case of consumers of Category I to IV (as defined in Chapter 2) where line voltage (11kV or higher up to 132kV) is stepped down on the consumer's premises to the service voltage required by the consumer, the facilities necessary to accommodate the transformer or transformers and the related equipment will be:

- (a) Distribution Sub-station
- (b) Consumer Sub-station

11.2 DISTRIBUTION SUB STATION

A Distribution Sub Station, is furnished, installed, owned, and maintained by DISCO for general purpose. In case of any damage/theft of the distribution sub-station the responsibility for installation of another sub-station shall rest with the DISCO.

11.3 CONSUMER SUB STATION

- 11.3.1 A Consumer Sub Station, is furnished, installed, owned, and maintained by the consumer.
- 11.3.2 The responsibility for the provision of space, installation and maintenance of step down transformer and all allied equipment in a consumer substation shall be that of the consumer. The layout of the substation, the equipment installed must meet the specifications, design and standards as approved by DISCO. The equipment may be supplied by DISCO on payment. However, for such facilities, the responsibility of DISCO shall only be up to the metering point (Interconnection point). For such installations, the consumer shall provide land/space for the lines which will extend to and from the substation and obtain consents, way-leaves and authorizations pertaining to the right of way.
- 11.3.3 If any consumer having consumer owned substation requests DISCO for shutdown; due to reasons including maintenance of machinery etc, the DISCO shall shut down the transformer/ sub-station, without any charges. However, the consumer is required to submit a written request three days prior to the scheduled shut down.
- 11.3.4 Consumer Sub Station is meant for one consumer. In case of more than one connection on the same substation /transformer with different ownerships such as commercial plazas/apartments/shops/residences, where bills are issued separately, the responsibility of maintenance, repair and replacement of the said system or up gradation/reinforcement thereof shall rest with the DISCO.



11.4 CONSUMER OWNED GRID STATION

Consumers receiving supply at 66 kV and above shall at their own sole risk and expense, furnish, install and maintain in good and safe condition all electrical wires, lines, machinery and apparatus of any kind or character which may be required for:

- 11.4.1 Receiving electrical energy from DISCO/ NTDC system; and utilizing such energy, by installing step down transformer and all other allied accessories and equipment including protection devices at the consumer premises.
- 11.4.2 The consumer will be responsible for the payment of construction charges and all costs associated with line extensions payable as per provision laid down in the Consumer Eligibility Criteria, 2003.
- 11.4.3 The design of the Grid station shall conform to Grid Code, Distribution Code and Safety Code.

11.5 METERING INSTALLATION REQUIREMENTS

- 11.5.1 Metering installation shall comply with Pakistan Standard Institute (PSI) or International Electric Technical Commission (IEC) standard or Standards developed/adopted by DISCO /NTDC.
- 11.5.2 DISCO /NTDC shall determine the location and method of installation for all metering equipment as provided in the Distribution Code, Grid Code and related manuals.
- 11.5.3 Whenever any electrical wiring is modified, new metering equipment complying with these service requirements shall be used, except when in the opinion of DISCO/ NTDC the existing metering equipment is satisfactory and adequate to register all energy to be supplied.
- 11.5.4 Line side (unmetered) conductors and load side (metered) conductors shall be prohibited from occupying the same enclosure.

11.6 GROUNDING SYSTEM

As defined in Distribution Code, Grid Code and as per the standard utility practice, proper neutral and protective earthing/ grounding system shall be installed by the consumer in the consumer owned grid station and checked by authorized experts of DISCO / NTDC.

11.7 SAFETY

All safety equipment including fire extinguishers and other relevant equipment shall be made available at the Grid Station.



CHAPTER 12

SAFETY AND SECURITY

12.1 GENERAL

In order to prevent accidents which may result in injury or death, or damage to public or DISCO/NTDC property, the consumers shall abide by the general safety requirements of the "Safety Code".

DISCO/ NTDC shall take all the safety and security measures to avoid fatal/non-fatal accidents. The consumers shall be educated through all possible means to observe safety measures in order to avoid any casualty especially during the monsoon season.

12.2 OBLIGATIONS OF DISCO/NTDC

DISCO/ NTDC shall monitor and implement the safety and security plan for consumers. The safety and security objectives can be achieved by adopting good engineering practice, including measures as described below:

- 12.2.1 Operation and maintenance of DISCO's/ NTDC distribution system /Network shall be carried out only by the DISCO's/ NTDC authorized and trained personnel.
- 12.2.2 DISCO's/NTDC system equipment, including overhead lines, poles/ structures/ towers underground cables, transformers, panels, cutouts, meters, service drops, etc. shall be installed and maintained in accordance with Grid Code, Distribution Code and other relevant documents.
- 12.2.3 To ensure proper operation of DISCO's/ NTDC network under abnormal conditions (short-circuits, overloading, etc.) appropriate protective relays shall be installed and properly coordinated to ensure isolation of faulty circuits.
- 12.2.4 The earthing systems installed shall be dimensioned and regularly tested to ensure protection from shock hazards.
- 12.2.5 The steel structure installed on the public places shall be earthed at ONE point through steel/copper conductor, in accordance with the DISCO's/ NTDC laid down procedures.
- 12.2.6 DISCO will issue a notice to the Consumer(s)/Person(s), in case of illegal construction, extension of building under or near the distribution/ transmission lines for violation of safety standards.



12.3 OBLIGATIONS OF THE CONSUMER

The consumer is responsible to monitor and implement safety and security standards within his/her own premises. The safety and security objectives can be achieved by adopting good engineering practice, including the following measures:

- 12.3.1 No matter how small, electrical installations, including earthing system, must be installed by competent Electrical Engineers and/or authorized wiring contractors, which must be inspected and certified by an Electric Inspector.
- 12.3.2 Wiring materials and electrical equipment installed must conform to the approved relevant standards and be of a good quality.
- 12.3.3 For the protection of the consumer it is necessary that electrical installation at the consumer's premises conform to the rules established by DISCO /NTDC and approved by the Authority as per the terms and conditions of the Consumer Eligibility Criteria 2003, Performance Standards (Distribution) Rules, 2005, Distribution Code, Safety Code and Grid Code.
- 12.3.4 No additions, alterations, repairs and adjustments to existing installations, (except such replacement of lamps, fans, fuses, switches, low voltage domestic appliance and fittings as in no way alter the capacity and the character of the installation), shall be carried out within a consumer's premises, except by an authorized wiring contractor.
- 12.3.5 In case of fatal electrical accident to a person, an immediate report shall also be made to the nearest police station and to the DISCO's Complaint center/ NTDC.
- 12.3.6 Any consumer committing a breach of procedures/rules outlined above shall render himself/herself liable for disconnection of his/her electric power and legal action.
- 12.3.7 No Consumer can construct/ extend the building under or near the transmission/ distribution lines or within close proximity of the lines.
- 12.3.8 If any existing consumer has to carry out re-wiring (due to any reason but not limited to catching fire/short circuiting) , he/she is required to provide a wiring test report to DISCO afresh issued by the Electric Inspector or his authorized wiring contractor.

12.4 SOME USEFUL SAFETY TIPS

Electricity, while being a very useful and convenient form of energy, has a number of hazards, and consumers would be wise to treat electrical installation with respect.

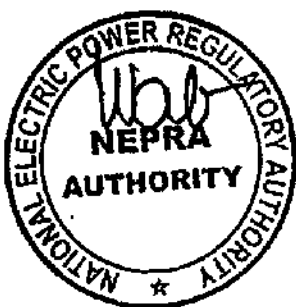
The following tips shall be kept in mind:

- 12.4.1 Hazardous conditions on utility systems shall be monitored and immediately reported to DISCO :



- (a) Damaged or faulty insulators.
- (b) Damaged cross arms
- (c) Broken strands or wires on overhead conductors, or fallen wires.
- (d) Uneven sagging of lines/Insufficient ground clearances of lines.
- (e) Leaning or damage to poles/structures /towers.
- (f) Branches of trees interfering with overhead conductors.
- (g) Loose stay- wires.
- (h) Construction of new roads, buildings, or other structures near/under the line.
- (i) Damaged or faulty transformer structures, including oil leakages
- (j) Leakage of currents in poles and other structures /towers.
- (k) Unsafe working practices by employees

- 12.4.2 RCDs (Residual Current Devices), also called Earth-Leakage Circuit Breakers (ELCBs), Ground-Fault Circuit Interrupters (GFCIs) are extremely sensitive circuit breakers that can prevent fires and shocks in electrical installations. Obtain specialist advice on their installation at appropriate locations in your electrical systems.
- 12.4.3 Electricity is more dangerous in the presence of water. During rains, near swimming pools, tanks or other water bodies, in laboratories, on construction sites, for temporary functions/weddings, etc., special care must be taken to use proper wiring and protective equipment, especially RCDs. Such installations need to be inspected on a regular basis.
- 12.4.4 Use proper circuit-breakers in preference to re-wire able fuse cut-outs.
- 12.4.5 Metallic and chemical string must not be used for kite flying as it poses serious danger to life and damages electricity installations.
- 12.4.6 Safe clearances from electricity conductors and equipment (e.g., hazardous extension of balconies at the upper stories of houses in mohallas which comes within close proximity of electric lines) must be maintained to avoid electrocution.
- 12.4.7 Connection may not be granted where safety hazards are observed and clearance (horizontal/vertical) of electricity supply lines is low, to discourage people from construction of houses under the lines to avoid accidents.
- 12.4.8 Animals must not be tied with poles/structures/towers/stay wires in order to avoid accidents/electrocutions.
- 12.4.9 In case of non-compliance of safety standards or already issued notices (by DISCO to the consumer, local building department/concerned civic authority is responsible to demolish the illegal constructed / extended building near or under the transmission / distribution lines after receiving information from concerned DISCO .



CHAPTER 13

EFFICIENT USE AND CONSERVATION OF ELECTRIC POWER

13.1 GENERAL

DISCO shall take steps towards improving the quality and reliability of electric service to maximize the value of the energy that is used and to increase the sale of power.

Electricity adds to the quality of life, hence it makes good sense to use it wisely. Consumers are advised to be “energy smart”.

13.2 ENERGY EFFICIENCY AND ENERGY SAVINGS

The use of present day technology boosts the efficiency of energy systems – such as the super-efficient compact fluorescent lamps (CFL), Light Emitting Diodes (LEDs) bulbs, etc. These bulbs yield pleasing light as a conventional incandescent lamps while consuming less electricity.

There are many other proven ways to maintain and operate energy systems to save energy costs all the time, many of which are at low or no cost.

13.2.1 Many of the quickest and easiest ways to save energy also cost little or nothing. In fact, a lot of energy savings can be achieved by doing the following:

- (a) Turn off lights when not needed.
- (b) Remove unneeded light bulbs.
- (c) When replacing bulbs, use lower wattage or more efficient ones.
- (d) Reduce air conditioning thermostat setting.
- (e) Reduce air conditioning during unoccupied hours.
- (f) Reduce air conditioning before the end of operating hours.
- (g) Have the ventilating and air conditioning systems serviced and adjusted.
- (h) Turn off machines and equipment when not needed.
- (i) Make sure all automatic controls are in good working condition
- (j) Ensure all motive machinery is properly lubricated and maintained.

13.2.2 The following steps may be read carefully:

- (a) **Find out last year's energy use and cost.** Twenty to thirty percent savings may be possible with little effort.
- (b) **Do an energy “audit”.** Take a good look at how and where you use – and waste – energy.
- (c) Get some expert help for the audit if needed.
- (d) Ask friends for their ideas and listen to their concerns about health and comfort. They should be fully involved in energy management efforts.
- (e) **Decide the top priority things to do.** Include them in the Energy Action Plan.



- (f) **Do them – with outside help if needed.** The sooner a start is made, the better savings are made.
- (g) **Keep a record of savings.** See if what has been done is working and how much being saved.

13.3 LIGHTING

13.3.1 Lighting energy can be wasted in several ways, such as:

- (a) **Inefficient light sources** – when the lamp or fixture is inefficient in converting electricity to light, using more watts (units of electric power) than necessary to produce the lumens (units of light output);
- (b) **Illumination losses** – when dirt or some other obstruction blocks some of the light; or when the light source is too far away from what you want illuminated;
- (c) **Over lighting** – when more light is used than is needed; when a “free” source such as day light is not used; and when lights are on, for no reason (e.g., when no one is present).

13.3.2 Three major ways to save wasting energy are as follows:

- (a) Turning lights off when they are not needed;
- (b) Reducing light levels wherever you have more light than you need;
- (c) Installing more efficient lighting or controls.

13.4 INFORMATION ABOUT BENEFITS OF SAVING ELECTRIC POWER

DISCO shall provide sufficient information to the consumers to make them aware of the benefits of efficient use and saving of electric power which in turn would result in savings to the utility. DISCO shall publish pamphlets or make advertisements or issue handbills from time to time for the education of consumers with regard to efficient use and saving of electric power. DISCO shall inform consumers about energy efficiency opportunities by way of “information inserts” included in monthly bills.

13.5 MONITORING USE OF ENERGY

The consumer shall be educated and encouraged to prepare the figures of monthly electricity bills for the last calendar year and this year by collecting from the monthly bills and recording in the table given below. Comparison of these figures on monthly basis shall give the “baseline” for making efforts for potential savings. In this way, keeping in view all the suggestions for saving and keeping a strict watch on the energy consumption, some fruitful results are achievable and it will be observed that energy management efforts actually do pay off.



TABLE FOR CONSUMPTION OF ELECTRICITY

Month	Electricity use (kwh)			Electricity cost		
	Last year	This year	% difference	Last year	This year	% difference
January						
February						
March						
April						
May						
June						
July						
August						
September						
October						
November						
December						
Total						

13.6 GENERAL TIPS-INDUSTRIAL OPERATIONS

- 13.6.1 Saving energy makes good business sense. Many companies think of energy as a fixed overhead but saving energy is actually one of the easiest ways to reduce costs.
- 13.6.2 **Save money:** Simply by switching machines off after use, or turning the cooling/heating down as per weather requirement, real savings can be made in the energy bill.
- 13.6.3 **Offer better value to your customers** cutting overheads means production costs will go down, making your products and services more competitive
- 13.6.4 Here are some tips specifically for manufacturing/ or industrial processes, to help save energy in key areas:

(a) **Motors**

- (i) **Keep your motors maintained / extend your motors operating life.**
If a motor is not working at its maximum efficiency, it can add to the energy costs. Ensure that the motors are always well maintained and voltage is balanced on all phases.
- (ii) **Use high efficiency motors**
Higher Efficiency Motors save energy.
- (iii) **Don't keep motors running on no-load**
Always check that motors are switched off when not in use, as even a motor at no-load uses a large amount of energy.



(b) **Compressed air**

(i) **Find and fix leaks**

Most businesses using compressed air can save up to 30% simply by fixing any leaks.

(ii) **Try to lower the operating pressure**

Reducing the operating pressure will save energy.

(iii) **Ensure there is a good supply of cool air around the compressor**

This will ensure it doesn't get overheated and use more energy than necessary.

(c) **Refrigeration**

(i) **Keep freezer doors closed**

Ensure freezer doors do not stay open un-necessarily.

(ii) **Ensure your system is at the right temperature**

Even a slight difference in temperature-setting can create a substantial difference in your bill.

(iii) **Don't let the condensers get overheated**

Make sure refrigerators are located in a place with sufficient airflow.

(d) **Improve Heating operation Systems**

By checking burner air to fuel ratios and the heat transfer surfaces.

(e) **Improve Pumping Operation Systems**

By matching the pumps to system requirements

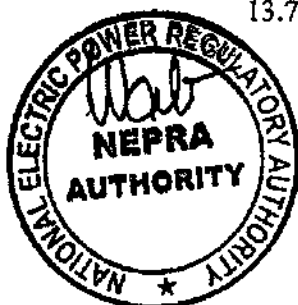
13.7 SUGGESTIONS AND RECOMMENDATIONS

13.7.1 Form an Energy Team

Energy teams in manufacturing facilities track and report energy use, identify energy-saving opportunities, develop an energy plan, and implement cost-saving measures. Energy teams typically include members from plant and process engineering, maintenance engineering, procurement, and production. Any energy team will enjoy greater success with support and involvement from senior managers, who can remove barriers and commit resources to projects.

13.7.2 Objective of Energy Team:

Performing a formal energy assessment is one of the best ways that your team can develop a cost-effective plan to lower plant energy costs.



The energy assessment team (which sometimes includes outside experts in energy management and troubleshooting) works both during and after the assessment process to:

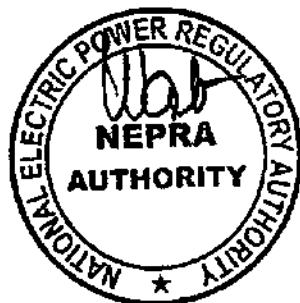
- (a) Evaluate all of the industrial systems to calculate how and where your plant uses energy,
- (b) Help find opportunities to increase efficiency,
- (c) Determine potential upgrades and emerging technologies that might work for your plant, and
- (d) Implement cost-saving measures.
- (e) Employee Involvement

13.7.3 Emphasis will be given on the employees' involvement by educating and encouraging them to follow the tips like:

- (a) Turn off lights ,when leaving work areas,
- (b) Report leaking faucets, lavatory fixtures, piping etc.
- (c) Keep windows and outside doors closed, if air conditioners are in use.
- (d) Leave thermostats at a constant setting to avoid forcing the system OFF and ON.
- (e) Turn off all tools and portable appliances when not in use,
- (f) Assign responsibility for turning off designated items to specific employees.

13.7.4 Recommendations

- (a) Install power factor correction equipment
- (b) Turn OFF equipment when not in use
- (c) Begin a practice of monitoring electric demand
- (d) Repair compressed air leaks
- (e) Redirect air compressor intake to use outside air
- (f) Lower air pressure in compressors
- (g) Repair steam valve leakages
- (h) Install water cooled chillers instead of replacing air cooled chillers
- (i) Install Speed controllers on twisting machines
- (j) Replace standard Fluorescent lighting with energy efficient tubes/lamps
- (k) Reduce luminance to minimum required levels via delamping
- (l) Install timers on lighting systems, where necessary



CHAPTER 14

RIGHTS AND OBLIGATIONS VIS-À-VIS CONSUMER AND DISCO

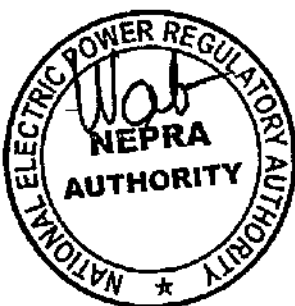
14.1 ACCESS TO/AT THE CONSUMER'S PREMISES

A duly authorized employee of DISCO shall be entitled at all reasonable times, and on informing the occupier of his intention after giving a notice of clear 24 hours (However, no notice is required for conducting raid in case of theft/illegal abstraction of electricity), to enter the premises to which energy is or has been, or is to be supplied by DISCO, for the purpose of:

- 14.1.1 Examining, inspecting and testing the electric supply lines, meters, maximum demand indicators or other measuring apparatus, electric wires, fittings, works or an apparatus for the supply or use of energy, whether belonging to DISCO or to the Consumer, or.
- 14.1.2 Ascertaining the amount of energy supplied or the electrical quantity contained in the supply or the apparatus, or.
- 14.1.3 Removing, where a supply of energy is no longer required, or where DISCO is authorized to take away and cut-off such supply, any electric supply lines, meters, maximum demand indicators or other measuring apparatus, fittings, works or apparatus belonging to DISCO , or.
- 14.1.4 Along all other things necessary or incidental to the proper supply or maintaining such supply to the consumer's premises.

14.2 FACILITATION TO BE PROVIDED BY THE CONSUMER

- 14.2.1 DISCO authorized staff member has access to meters, service connections and other property owned by it which may be located in consumer's premises for purposes of installation, maintenance, operation or removal of the property at the time service is to be terminated.
- 14.2.2 The consumer's utility system shall be open for inspection to authorized representatives of DISCO. The consumer's failure to do so within a reasonable period of time may result in disconnection.
- 14.2.3 Consumers must provide access to all electric meters upon request for billing purposes. If a premises is unoccupied/locked, an appointment to obtain meter readings will suffice for a maximum period of two (2) months. After that, a new appointment will be required to update the readings.



14.3 PROPERTY DAMAGE

- 14.3.1 DISCO is not responsible for any loss or damage caused by any negligence or wrongful act of a consumer or his authorized representative in installing, maintaining, operating or using any or all appliances, facilities or equipment.
- 14.3.2 The consumer will be held responsible for damage to DISCO's meter installation and other property or facilities resulting from the use or operation of appliances and facilities on consumer's premises, including but not limited to damage caused by electricity, steam, hot water or chemicals.
- 14.3.3 If a consumer, new applicant, developer or other person is found to be responsible for any damage done to the DISCO's property; such damages shall be reimbursed to DISCO .
- 14.3.4 In case of damage to common distribution system by any vehicle accidently; the DISCO is required to proceed as under:
- a) Restore Electricity Supply at the earliest at their own cost.
 - b) Conduct departmental enquiry to establish whether it was purely an accident or was done malafidely.
 - c) In case of malafide action; the DISCO may take action against the responsible person and recover the cost of damage/repair.
 - d) In case no mala fide action is proved, the DISCO will repair/replace the distribution system at its own under maintenance head.

14.4 LIABILITY OF THE CONSUMER FOR DAMAGE TO DISCO APPARATUS

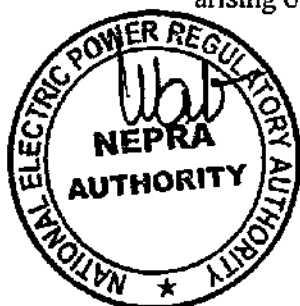
The consumer shall be solely responsible for and shall pay for any loss of, or damage to, any electric supply lines, meters and/or other apparatus in use of the consumer for supply of energy purpose, whether caused maliciously or through negligence or default on the part of the consumer or any of his/her employees, except reasonable wear and tear and loss or damages arising out of defects in the aforesaid electric supply lines, main fuses, meters and/or other apparatus belonging to DISCO on the consumer's premises.

14.5 RIGHT OF WAY

The right of way shall be the responsibility of the applicant/consumer

14.6 FAILURE OF SUPPLY DUE TO FORCE MAJEURE

DISCO shall not be liable for any claims for loss, damage or compensation whatsoever, arising out of failure of supply when such failure is due to Force Majeure.



14.7 OBLIGATIONS OF CONSUMERS

- 14.7.1 Consumers who operate equipment which causes detrimental voltage fluctuations (such as but not limited to, hoists, welders, x-ray apparatus, radio transmitters, elevator motors, compressors and furnaces) must reasonably limit such fluctuations upon request by DISCO. The Consumer will be required to comply with the necessary corrective measures.
- 14.7.2 Separate service is required for x-ray units over 5 kVA, welder units over 3 kVA, radio transmitters and resistance welders.
- 14.7.3 DISCO may require the consumers to provide, at their own expense, special furnace type transformers and reactors and capacitors sufficient to limit secondary short-circuit current values. In such cases, DISCO shall furnish energy at 11 kV.
- 14.7.4 The consumer should also make arrangements to filter out or prevent harmonic distortions traveling onto/interfering with the DISCO's system.

14.8 POWER FACTOR

DISCO encourages consumers to maintain a power factor of at least 90% to avoid penalties.

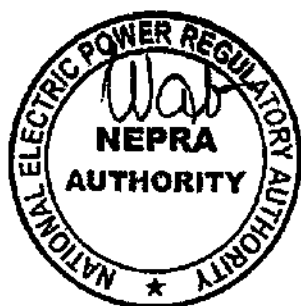
14.9 CONSUMER'S OBLIGATION TO COMPLY

Consumers must use their best endeavors to avoid any non-compliance of this Manual within the time period specified in any notice of non-compliance sent by DISCO.

14.10 DISCONNECTION OF SUPPLY FOR NON-COMPLIANCE

DISCO may disconnect the supply to a consumer if,

- a) The consumer has not fulfilled an obligation to comply with this manual;
- b) The DISCO has given the consumer seven (7) Business days written notice of disconnection (such notice to be in addition to the notice already given); and
- c) The consumer fails to comply with the notice.



CHAPTER 15

Violation of Instructions

- 15.1** DISCO shall ensure that it complies with the provisions of the Consumer Service Manual while dealing with consumer complaints.
- 15.1.1** The Consumer Service Manual shall be treated as an applicable document as defined in Chapter 1. In case the consumer/complainant is not satisfied with the response/decision of the distribution company or the distribution company does not reply at all, the consumer shall have the following options:
- 15.1.2** The consumer may file a complaint with Provincial Office of Inspection in respect of metering, billing and collection of tariff applicable under section 38 of the Act. Any person aggrieved by any decision or order of the Provincial Office of Inspection may, within thirty days of the receipt of the order, prefer an appeal to the Authority in the prescribed manner.
- 15.1.3** Under section 39 of the Act, any consumer/interested person, including a Provincial Government may file a written complaint with the Authority against a licensee for contravention of any provision of the Act or any order, rule, regulation, licence or instruction made or issued thereunder. The complaint shall be processed under the Complaint Handling and Dispute Resolution (Procedure) Rules, 2015.
- 15.1.4** Under section 35-A of the Act, any consumer/interested person may file complaint with NEPRA regarding over billing, noncompliance of instructions respecting metering and collection of approved charges, disconnection in case of nonpayment of charges, electric power theft and use of energy for purposes other than for which it was supplied.
- 15.1.5** DISCO shall comply with the orders/decisions/instructions as may be passed by the Authority with regard to the complaint which shall be enforced under the laws/rules.



CHAPTER 16

PUBLIC ELECTRIC VEHICLE CHARGING STATIONS.

16.1 This chapter on Public Electric Vehicle Charging Station (PEVCS) describes relevant provisions exclusively applicable to PEVCS. Notwithstanding this chapter, all the applicable laws and provisions in this Manual shall apply to PEVCS.

16.2 Definitions

The Definitions given in Chapter 1 are applicable herewith. However, the definitions of the terms used specifically in this chapter are given below:

16.2.1 **"electric vehicle or EV"** means a vehicle that uses electric motors and motor controllers for propulsion, and contains an energy storage device, such as a rechargeable battery to store electricity and use it as a transportation fuel to power its electric motors and motor controllers, which is manufactured primarily for use on public streets, roads or highways and charges its battery by plugging into the national distribution facilities.;

16.2.2 **"electric vehicle supply equipment or EVSE"** means a complete assembly consisting of conductors, connectors, devices, apparatus, and fittings installed specifically for power transfer and information exchange between a branch electric circuit and an electric vehicle.

16.2.3 **"EV Services"** means the charging of a battery of an EV User by an EVSE at a PEVCS.

16.2.4 **"EV User"** means any person who owns, charges, or operates an EV.

16.2.5 **"Margin"** means an amount (in PKR) announced by NEPRA as a rate per unit of electric power (kWh) to be billed by a PEVCS from time to time from an EV User and duly notified and displayed on the NEPRA website.

16.2.6 **"public EV charging station or PEVCS"** means any premises where an EVSE is located for recharging of an EV by the public and which allows any EV User or operator to access and use the charging station free of cost or on payment;

16.3 PEVCS's Connection and Category

16.3.1 PEVCS shall be deemed to fall within the category of "commercial" consumer and be subject to the relevant tariff as announced by NEPRA and to all the applicable laws and relevant terms and conditions and more specifically chapter 7 of this Manual.

16.3.2 PEVCS shall be subject to all the provisions of chapter 2 and chapter 11 of this Manual, Performance Standards (Distribution) Rules (PSDR), 2015 and Distribution Code for obtaining a connection and submitting the requisite application forms stated therein.



- 16.3.3 For each EVSE installed at a PEVCS a separate connection will be required and shall be approved under chapter 2 unless DISCO makes an exception subject to any conditions the DISCO deems necessary.

16.4 Maximum Margin

- 16.4.1 PEVCS shall not bill an EV User above the Maximum Margin for each unit of electric power (kWh) used in the delivery of EV Services.
- 16.4.2 DISCO shall ensure that a PEVCS shall not bill more than the Maximum Margin from EV Users and shall comply with the terms and conditions as notified by the Authority.
- 16.4.3 16.4.3 PEVCS shall display on the premises, website, and any online tool (as applicable) at a prominent and visible place the Margin applicable from time to time for the benefit of the EV Users. The Margin should be displayed in such a manner to ensure that the EV User is made aware before using the EV Services of the Margin applicable per kWh.
- 16.4.4 16.4.4 If a PEVCS is found to have billed an EV User a rate higher than the Margin for EV Services, then DISCO shall be under an obligation to report this infraction to the Authority. The Authority may itself or may require DISCO to take any measures against the owner(s) of the PEVCS amongst others imposing any financial penalties including taking measures to prevent the PEVCS owner(s) in the future owning, managing, or indirectly being involved in the running of a PEVCS

16.5 Metering

- 16.5.1 PEVCS shall be subject to all the requirements stated in chapter 4 and chapter 6 of this Manual as well as PSDR and Distribution Code.
- 16.5.2 PEVCS will install any and all meters as required to ensure that the number of kWh consumed by the PEVCS in total and by each EV User for charging the EV at the PEVCS can be accurately measured. PEVCS shall be required to follow any directions given by DISCO in this regard.
- 16.5.3 DISCO shall inspect the functioning of any meter forming part of EVSE to ensure it accurately measures the number of kWh consumed by an EV User and DISCO may recommend any alterations in the metering equipment to protect its integrity and accuracy.
- 16.5.4 If DISCO detects any defect or interference with the EVSE, which has or can cause wrong billing to EV Users, then DISCO shall require PEVCS to take all steps to rectify the defect/interference and further shall take any penal measures applicable under this Manual



16.6 Billing

PEVCS shall be at liberty to design any bill/invoice which is to be given to the EV User for the EV Services.

16.7 Safety and Technical Standards for PEVCS and EVSE

16.7.1 Safety Standards for PEVC

DISCO shall ensure PEVCS are installed according to manufacturer's instructions and applicable legal requirements during construction and installation and shall be in compliance with the highest safety, industrial and technical standards/codes issued by any regulatory body of Pakistan, including Pakistan Standards & Quality Control Authority, recommendations provided by the manufacturer, or DISCO or requirements incorporated into this Consumer Services Manual, from time to time for EVSE and for the overall premises on which the PEVCS is located/installed.

16.7.2 PEVCS shall adhere to all the technical and safety requirements stated in this Manual and more specifically chapter 12 as well as PSDR, Distribution Code and Power Safety Code.

16.7.3 PEVCS and the EVSE must conform to all approved and prevailing technical and safety standards approved by National Energy Efficiency and Conservation Authority (NEECA)/Pakistan Standards, Quality Control Authority (PSQCA) and manufacturer's recommendations.

16.7.4 The owner of PEVCS shall ensure that:

- a) Display safe charging tips/instructions for Operator and EV User;
- b) Display fixed "Danger Sign" at places where an immediate hazard/ danger exists such as panel, substation, transformer, etc. Display fixed "Caution Sign" at places where it is required to warn against potential hazards or to caution against unsafe practices;
- c) Danger and Caution Signs shall be clear, easy to understand, and the words shall be in Urdu, English, and/or in a language understood by locals and workers. The signs shall be readable at a minimum distance of 5 feet;
- d) Fire Prevention system for charging station shall be provided with manufacturer's instruction and applicable legal requirements;
- e) The enclosure of the charging station shall be made of fire retardant material with self-extinguishing media;



- f) Fire detection, alarm, and control system shall be provided as per manufacturer's instructions, Pakistan Building Codes and other applicable national and provincial legal requirements.

16.7.5 Design

The owner of PEVCS shall ensure that:

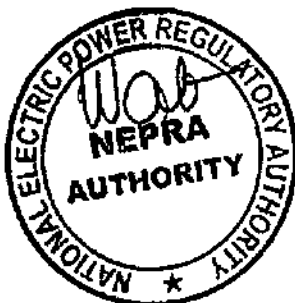
- a) It coordinates with the DISCO to obtain EVSE installation requirements, Specifications, and other relevant information and documents. This includes any interconnection documents required by the DISCO for new service requests and sites requiring a service upgrade; Provided that the DISCO shall be bound to provide such information and documents in response to the request free of cost within seven working days;
- b) The installation, design, and site layout shall consider the potential risk of ignitable fumes such as gasoline dispensers and therefore must comply with relevant safety requirements;
- c) The installation, design, and site layout shall consider the potential risks during the installation, operation, and maintenance of the EVSE and all support equipment including wiring, conduit, and protection devices;
- d) The design shall consider protection against vehicle impact and EVSE shall be installed in a position to minimize the likelihood of damage from vehicle impact;

Provided that in case the likelihood of damage from vehicle impact cannot be minimized, use of additional protection barriers shall be installed following IEC 62262 i.e. a typical protection against mechanical stress impact for EVSE installed outdoors is IK10;

- e) The electric vehicle parking place shall be such that the connection on the vehicle when parked for charging shall be within five meters from the electric vehicle charging point;
- f) Electric vehicle charging stations shall be designed, installed, tested, certified, inspected, and connected as per manufacturer's instructions/specifications by following the applicable law and international standards such as IEEE, IEC, ASTM, BS, INIFPA, UL, or ISO, etc;
- g) Hazardous live parts shall not be accessible to protect persons against electric shock;
- h) Every part of the electric apparatus shall be securely guarded and fenced unless they are safe by position or construction;



- i) Electric vehicle charging station shall be provided with protection against the overload of input supply and output supply fittings;
- j) Electric vehicle charging points shall be installed so that any socket-outlet of supply is at least 800 millimeters above the finished ground level;
- k) A cord extension set or second supply lead shall not be used in addition to the supply lead for the connection of the electric vehicle to the electric vehicle charging point and it shall be so constructed so that it cannot be used as a cord extension set;
- l) Where the connection point is installed outdoors, or in a damp location, the equipment shall have an ingress protection code at least IPX4 as defined in IEC standard 60529;
- m) A lightning protection system shall be provided for the electric vehicle charging station;
- n) The electric vehicle charging station shall be equipped with a protective device against the uncontrolled reverse power flow from the vehicle;
- o) The electric vehicle charging station shall have protection to prevent overvoltage/overloading of the battery;
- p) The electric vehicle charging point shall not be energized until it is connected to the vehicle;
- q) Identify, install and maintain the protective system for abnormal conditions (short-circuits, overcurrent, fault or overloading, etc.) including the grounding of circuits, apparatus, and infrastructures to interrupt all live connections, including the neutral. ELCBs (earth leakage circuit breakers), RCDs (residual current devices), and RCCBs (residual current circuit breakers) shall be used as per design in circuits to prevent fires and shocks in electrical installations. Protections/ controls/ interlocks shall be intact and shall not be bypassed or modified without approval from the designer;
- r) Install and maintain earthing/grounding system for the charging station and bonding system for the vehicle. The resistance shall be as per design or manufacturer's instruction or Distribution design code of Distribution Code. In the absence of grounding and bonding instruction, the earthing resistance shall be not more than 5 Ohms and the transformer shall be not more than 2.5 Ohms to determine the integrity of the grounding path to ensure protection from shock hazards. Verify integrity of earthing/ grounding and bonding by continuity test and resistance measurement after 12 months and critical care shall be after 6 months. Provide nameplate/ tag to all equipment with numbers for tracking of earthing/



grounding and bonding testing record, etc. The original record of testing shall be retained and preserved for three (03) years;

- s) Electric vehicle charging station shall be provided with an earth continuity monitoring system that disconnects the supply if the earthing connection to the vehicle becomes ineffective;
- t) All apparatus of charging stations shall have the insulation resistance value as per manufacturer's instructions/specifications or as stipulated in the relevant IEC 61851-1 standard;
- u) Power supply cables used in charging stations or charging points shall conform to manufacturer's instructions/specifications or IEC 62893-1 standard.

16.7.6 Installation

EVSE shall:

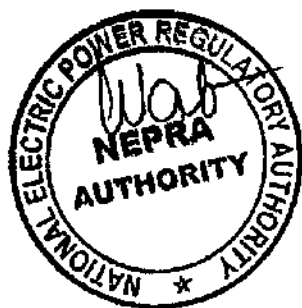
- a) be installed in a position to avoid obstruction to public or private footpaths and it shall not be installed in such a position that causes an unnecessary trip hazard;
- b) have electrical wiring routed and suitably clipped or enclosed in a containment system to avoid creating a potential trip hazard and contact risk to the public. Wire routing requiring a conduit shall either be installed underground at the appropriate depth following local requirements or along walls or ceilings when necessary;
- c) be installed to minimize the distance between the EV inlet and the charging equipment. The cord installed for charging vehicles shall have appropriate length to ensure minimum distance;
- d) be installed with precautions to ensure that live parts i.e. hot wires/loaded circuits are either not accessible or cannot be touched during installation, operation, and maintenance;
- e) be designed and installed to enable maintenance and service work to be carried out safely;
- f) be designed and installed to comply with the requirements for health, safety, and environment as set out in this Manual, PSOR and Distribution Code;
- g) be designed to prevent unauthorized usage of the charging facilities such as housing the socket outlet in a padlocked box or using an access card for energizing charging facility etc. may be provided as necessary especially for outdoor installations;



- h) be installed with sufficient space around it to allow for adequate ventilation and cooling of the equipment (e.g. DC charging equipment incorporating rectifiers). The designer and installer of the EV must refer to the manufacturer's installation and operating instructions supplied and comply with requirements stated in relevant standards;
- i) have all associated equipment an IP rating suitable for the installation location; for indoor locations, minimum ingress protection of IP44 shall be used; for outdoor locations, minimum ingress protection of IP55 shall be used;
- j) comply with the relevant quality and safety standards;
- k) the connector type installed shall comply with IEC 62196 (Type 2 for level 2 charging and CCS2 (Combined Charging System) for DC (Direct Current) charging;
- l) Entry of unauthorized visitors and access of stray or street animals shall be controlled in hazardous areas;
- m) The EVSE installed at existing petrol/gas stations shall be located outside the hazardous zone.

16.7.7 Operations

- a) EVSE shall be set up in compliance with relevant standards and codes to ensure proper calibration, accurate metering, and transparency;
- b) EVSE shall be capable to provide a technical basis for billing options, metering accuracy, and network connectivity;
- c) EVSE shall be capable of upgrades to enable Smart-grid-capability through Open Charge Point Protocol (OCPP) transmission and an integrated 4G/5G modem;
- d) EVSE shall not create faults (typically through a circuit breaker/overcurrent protection), harmonics, and frequency misbalance in the distribution network;
- e) EVSE shall have the capability to detect and monitor faults and generate signals/alarms in case of any fault is detected as required under international standards like I1772. It shall be capable to react to critical as well as small residual faults, reporting it and deliberately terminating the charging process before the residual current device (RCD) is tripped;
- f) EVSE shall be connected to energy management systems (EMS) through the standardized EEBUS protocol for energy management, data exchange, and control;



- g) EVSE shall be capable to have bi-directional communication with the vehicle as well as intelligent connection to EMS, monitoring the internal hardware of the charging system, the user interfaces as well as the charging socket and the charging cable. However, it shall be ensured that the EVSE shall not back-feed the grid in the case of an outage;
- h) the charging infrastructure results in maximum availability and safety for both the charging infrastructure and the electric vehicle to be charged;
- i) A portable socket-outlets or adaptor shall not be used for electric vehicle charging.

16.7.8 Maintenance, Inspection, and Testing

- a) The owner of the charging station shall ensure the electrical and mechanical isolation before performing any servicing or maintenance at the charging station, where the unexpected energizing, start-up, or release of any type of energy (electrical, kinetic, potential, thermal, chemical) could occur, cause damage to equipment, and injury to personnel;
- b) The owner of the charging station shall plan and conduct periodic preventive maintenance based on the manufacturer's instructions/manual;
- c) The owner of the charging station shall ensure that the inspection and testing shall be done as specified in the manufacturer's instructions/manual at specified intervals;
- d) The owner of the charging station shall arrange inspection and testing by the Electrical Inspector or Third Party Inspector. The report of inspection / testing may be submitted to DISCO;
- e) The owner of the charging station shall ensure that inspection and testing of the charging station shall carry out every year or at the time of any major breakdown;
- f) The original record of inspection, maintenance, and testing shall be retained and preserved by the owner for three (03) years.

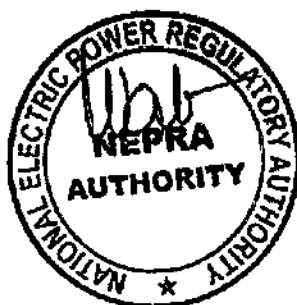
16.8 Complaints

EV Users may raise any complaints against the PEVCS and DISCO under chapter 10 and chapter 15 of this manual. An EV User shall be deemed to be a consumer for purposes of raising any complaint.



LIST OF ANNEXURES

Annexure – I	Application Form for New Connection
Annexure – II	Power Supply Contract
Annexure – III	Time Frame for New Connections
Annexure – IV	Security Deposit Rates
Annexure – V	Percentage of Load Factor for Different Types of Connections
Annexure – VI	Load Assessment Criteria



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Annexure –I
APPLICATION FORM
(FOR CONNECTION)
(DISCO to insert its name and logo)

Type of Connection

☐ Domestic	☐ Commercial	☐ Industrial
☐ Agriculture	☐ Temporary	☐ Other (Please specify)

Purpose of application

☐ New Connection	☐ Change of Name	☐ Extension of load
☐ Reduction of load	☐ Change of Tariff	☐ Other (Please specify)

Load applied:

Serial No.	Electrical Appliances	Quantity	Load (Watts)
1.	Light(s)		
2.	Fan(s)		
3.	Air-conditioner(s)		
4.	Heater		
5.	Washing machine		
6.	Refrigerator		
7.	Light plug		
8.	Power Plug		
9.	Motor		
	Other.....		
Total Load (kW)			

PART I (FOR OFFICE USE)

Application No. _____

Date _____

Name of Sub Div. _____

1. Name of Applicant _____
2. Father's/Husband's name _____
3. Complete address where the connection is required _____
4. Applicant's Mailing Address _____
5. CNIC _____
6. Applicant E-Mail address _____
7. Phone No. _____
8. Mobile No. _____
9. Size of Plot _____ Marla _____ Kanals _____ Sq. Yds
10. Reference No. of existing connection(s) if any _____

(Signature of Applicant)

(Signature of witness)



Applicant's Receipt

FOR OFFICE USE:

Application for _____ (purpose of application) has been received from Mr. _____ with DISCO and has been allotted Registration No./Case ID. _____ dated _____.

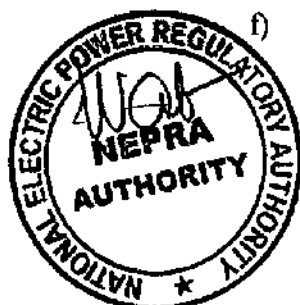
Signature of Officer/Official: _____

Date: _____

Name of Sub-Division/Division/Circle _____

DOCUMENTS TO BE ATTACHED WITH THE APPLICATION FORM

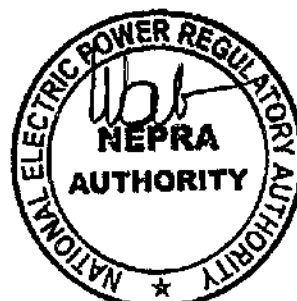
- a) Ownership proof of the premises as determined by DISCO where connection is required. Conversely provision of electricity connection does not necessarily constitute proof of ownership of the premises.
- b) An affidavit by the owner of the premises on non-judicial stamp paper worth Rs. 50/- as per schedule 1 of the Stamp Act 1899 (or as amended through Stamp Act, 1899 from time to time) to the effect that no connection existed previously at the premises for which connection is applied for and that he/she shall pay DISCO any outstanding dues in respect of any previous connection which existed at the premises in question, if noticed later on. Further, in the affidavit it will be mentioned that the applicant is not defaulter of any other electricity connection in DISCOs or / and in any other distribution company, and if found at any stage, his/her connection may be disconnected after issuance of prior seven days' notice.
- c) If the applicant is a tenant or a person other than the landlord/owner then no objection certificate from the owner/landlord along with the ownership proof and affidavit as mentioned above are required. The Owner/landlord will also affirm on a non-judicial stamp paper worth Rs.50/- as per schedule 1 of the Stamp Act 1899 that he/she would be responsible for payment of the default amount of his/her tenant (if any)
- d) Attested copies of CNIC of the applicant and a witness. In case of tenancy case, attested copy of CNIC of the landlord/owner is also required.
- e) If the connection is applied in the name of a company, duly incorporated under the law, following additional documents shall be attached:
 - i) Certificate of incorporation;
 - ii) Resolution of Board of Directors authorizing a person to sign and execute the application and agreement form;
 - iii) List of directors with complete addresses and copies of their computerized national identity cards.
- f) Approved map or approved site plan or approved layout plan (LOP) or NOC by the Civic Agency/Authority. However, the condition of the approved map or approved site plan or approved layout plan or NOC for houses and shops can be relaxed by the DISCO in case of rural areas where map /site plan /layout plan/NOC are not applicable/required.



- i. There shall be no requirement of approved map or approved site plan or approved layout plan (LOP) or NOC by the Civic Agency/Authority for another connection or for extension/ reduction of load where already any permanent/ regular connection exists at the premises.
 - ii. There shall be no requirement of approved map or approved site plan or approved layout plan (LOP) or NOC by the Civic Agency/Authority for premises which are located inside approved housing schemes/ societies/plazas/multi-storey buildings.
 - iii. There shall be no requirement of approved map or approved site plan or approved layout plan (LOP) or NOC by the Civic Agency/Authority in the areas where the land is either not acquired by the concerned Civic Agency/Authority or the area is not developed by concerned Civic Agency/Authority.
 - iv. There shall be no requirement of approved map or approved site plan or approved layout plan (LOP) or NOC by the Civic Agency/Authority in the old colonies/ abadies where the land belongs to the native people inherited from their forefathers.
 - v. It will be ensured before provision of connection that there are no restraining orders/ Court orders with respect to non-provision of connection in the area.
- g) Wiring test report duly issued by Electric Inspector or his authorized wiring contractor
- h) In case of connection for stone crushing plants NOC from concerned Environmental Protection Agency is necessary.

PART II
(FOR OFFICE USE)

1. Date of Survey/Verification of Test Report-----
2. Authenticity of particulars given by consumer
 - a. Load at site -----kW
 - b. Tariff Applicable -----
3. Material required (as per attached estimate)
4. Size of plot -----
5. Proposed Reference No.-----
6. Whether area electrified/ un electrified/Housing Society-----
7. Whether Transformer is available or not:-----
8. Whether 11 kV feeder is available or not(name of feeder):-----
9. Whether Grid Station is available or not(name of Grid Station)-----
10. Name of Official: -----
11. Designation: -----
12. Load Sanctioned: -----
13. Date of sanction -----



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14. Name of Officer: _____

15. Designation: _____

16. Demand Notice for Capital Cost:

- a. No. _____
- b. Issue Date: _____
- c. Total amount: _____
- d. Paid On (Date): _____
- e. Total Paid Amount: _____
- f. Bank Name and Branch: _____
- g. Date of Return of Demand Notice by the applicant to DISCO: _____

17. Demand Notice for Security Deposit:

- a. No. _____
- b. Issue Date: _____
- c. Total amount: _____
- d. Paid On (Date): _____
- e. Total Paid Amount: _____
- f. Bank Name and Branch: _____
- g. Date of Return of Demand Notice by the applicant to DISCO: _____

18. Reason(s) if application is not sanctioned and returned

(Signature of officer with designation)

PART III

(i) Connection Installation

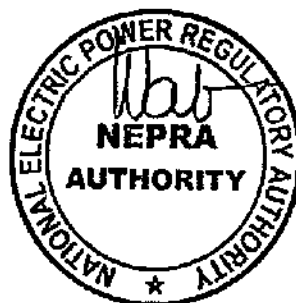
- a. Date of metering installation-----
- b. Name of Incharge installing the meter-----

(ii) Meter's Particulars

- a. Meter No-----
- b. Make-----
- c. Meter type-----
- d. Capacity-----
 - i. kWh ii. kVARh iii. MDI
- e. Initial reading-----
- f. Multiplying factor if any-----
- g. Seals/Postal order No-----

(Signature of official with designation)

(Signature of officer with designation)



PART IV

Submission of documents to RO/AM(CS) for billing vide Letter No _____

Dated: _____

(Signature of Officer with Designation)

NOTE: Copy of the complete set (part I to IV) completely filled in and signed by the officer of DISCO (DISCO to interest its name) will also be provided to the consumer for his/her record. The consumer may lodge complaint against non-provision of such complete copy.

(Signature of the Applicant as a token of receipt of a copy of the set)



Annexure-II
Power Supply Contract
(DISCO to insert its name and Logo)

To be executed on non-judicial stamp paper worth Rs. 50/-

Contract for Consumer Connection and Supply of Electric Power

This Contract for Consumer Connection and Supply of Electric Power ("Power Supply Contract") is entered into between Mr./Ms./Mrs. M/s _____ ("Consumer") AND DISCO _____ on the ____ day of _____, at _____ for the purpose of _____ (New connection/change of name/extension of load/reduction of load)

Whereas the applicant had applied vide Application Form dated _____ for a load of _____ kW to DISCO under tariff _____.

Whereas DISCO had issued demand notices bearing No. _____ dated _____ (capital cost) and No. _____ dated _____ (security deposit) in the favour of consumer amounting to Rs. _____ and Rs. _____ respectively which were duly deposited by the consumer on _____ vide receipt no. _____ in _____ Bank.

Whereas the consumer has in line with the provisions of Consumer Eligibility Criteria, 2003 deposited the charges, complied with the safety requirements and its electrical installations checked and verified by the Electric Inspector or his authorized wiring contractor.

Whereas DISCO has also verified the electrical installation at the consumer's premises and ensured its soundness for the purpose of its connection to its distribution system.

Now therefore, the parties to this contract hereby agree as follows:

DISCO shall provide the distribution services to the consumer in accordance with the terms and conditions approved by National Electric Power Regulatory Authority ("Authority").

The Consumer Service Manual provides the rights and duties of both DISCO and the consumer which shall be binding on both the parties and shall be referred to by the parties to deal with different aspects of services to be rendered by DISCO.

In witness whereof, the parties hereto execute this Contract of Power Supply on this day of _____

DISCO: _____
Name _____
Signature _____

Consumer: _____
Name: _____
Signature _____

Witness:
Name _____
CNIC No. _____
Signature _____



Annexure – III

Time Frame for New Connections, Extension / Reduction of Load

CONNECTION CATEGORY-1

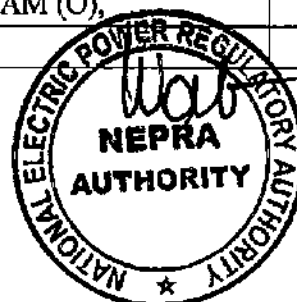
Load (up to 15 kW) at 400 V

Sr. No.	Description	Responsibility	Days
1	Registration of application in the Sub Division/Division, submission of wiring test report, site survey and verification of test report	-SDC, LS, SDO (for A1,A2, A3) connections -Head Draftsman/XEN/DM(O) (for other connections)	4
2	Preparation of Service cost estimate & vetting , issuance of demand notice,	-LS, SDO/AM(O) (for A1,A2, A3) connections -Head Draftsman/XEN/DM(O) (for other connections)	6
3	Issuance of SCO/ Work Order/ Instructions, Approval of Store requisition/Issue of material and execution of work order	-LS, SDO/AMO (for A1,A2, A3) connections -XEN/DM(O) (for other connections)	11
4	Metering installation	-LS -SDO/AM(O) -XEN/DM(O)	9
			30

CONNECTION CATEGORY-2

Load (above 15 kW but not exceeding 70 kW) at 400 V

Sr. No.	Description	Responsibility	Days
1	Registration of application in the Division, submission of wiring test report, site survey and verification of test report	Head Draftsman/XEN /DM (O)	4
2	Preparation of Service cost estimate & vetting and issuance of demand notice	XEN/DM (O)	6
3	Issuance of SCO/ Work Order/ Instructions, Approval of Store requisition/Issue of material and execution of work order	-do-	25
4	Metering installation	XEN/DM (O), XEN/DM (M&T) SDO/AM (O),	9
			44

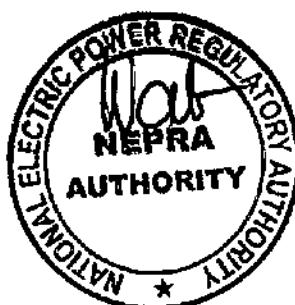


CONNECTION CATEGORY-3Load (above 70 kW but not exceeding 500 kW) at 400 V

Sr. No.	Description	Responsibility	Days
1	Registration of application in the Circle, submission of wiring test report, site survey and verification of test report	Head Draftsman /SE/Manager (O)	5
2	Preparation of Service cost estimate & vetting and issuance of demand notice	SE/Manager (O)	7
3	Issuance of SCO/ Work Order/ Instructions, Approval of Store requisition/Issue of material and execution of work order	PD (Construction), XEN/DM (O)	36
4	Metering installation	XEN/DM (O), XEN/DM (M&T) SDO/AM (O),	10
			58

CONNECTION CATEGORY-4Load (above 500 kW but not exceeding 5000 kW) at 11kV or 33 kV

Sr. No.	Description	Responsibility	Days
1	Registration of application in CEO Office, submission of wiring test report, site survey and verification of test report	Manager (P&E)	10
2	Preparation of Service cost estimate & vetting and issuance of demand notice	-do-	20
3	Issuance of SCO/ Work Order/ Instructions, Approval of Store requisition/Issue of material and execution of work order	PD (Construction), XEN/DM (O)	55
4	Metering installation	SE/Manager (O), Manager (M&T) XEN/DM (O),	21
			106



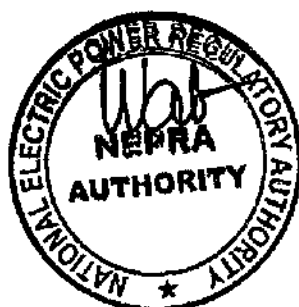
CONNECTION CATEGORY-5

All loads at 66 kV and above

Sr. No.	Description	Responsibility	Days
1	Registration of application in the CEO Office, submission of wiring test report, site survey and verification of test report	Mgr. (P&E)	30
2	Preparation of Service cost estimate & vetting and issuance of demand notice	CE (T&G) Office of CEO Office of MD, NTDC	15
3	Issuance of SCO/ Work Order/ Instructions, Approval of Store requisition/Issue of material and execution of work order	CEO- - CE (T&G) - PD (GSC)	411
4	Metering installation	Manager (P&E) Manager (M&T) SE/Manager (O), XEN/DM (P&I), XEN/DM (T&I)	40
			496

Explanation:

"In case the distribution company does not take the required action within the stipulated time prescribed in the above table, the distribution company shall have to give reasons for each day delay in writing to the consumer with a copy to the Authority; the Authority may accept or reject such reasons. However, the delay shall not absolve the distribution company from the obligation to complete the required action (i.e. issuance of demand notice or provision of connection, as the case may be)".



Annexure – IV
Security Deposit Rates

Description	Security Deposit
Residential A-1	
Urban	Rs. 1,220 / kW
Rural	Rs. 610 / kW
Commercial A-2	
Urban	Rs. 1,810 / kW
Rural	Rs. 920 / kW
General Services A-3	To be determine by NEPRA
Industrial	
BI	Rs. 1,580 / kW
B2	Rs. 2,010 / kW
B3	Rs. 2,890 / kW
B4	Rs. 3,560 / kW
Single Point Supply	
CI Supply at 400	Rs. 1,670 / kW
C2 Supply at 11 kV	Rs. 2,080 / kW
C3 Supply above 11 kV	Rs. 2,740 / kW
Agricultural Tube-wells - Tariff D	
Agricultural Tube-wells (including scarp/ lift pump)	Rs. 15000 lump sum
Public Lighting - Tariff G	Rs. 3,240 / kW
Tariff H - Residential Colonies attached to industries	Rs. 1,560 / kW
Special Contracts - Tariff K (AJK)	Rs. 2,570 / kW
Traction - I	Rs. 610 / kW
Special Contracts - Tariff K (Rawat)	Rs. 2,900 / kW



Annexure - V

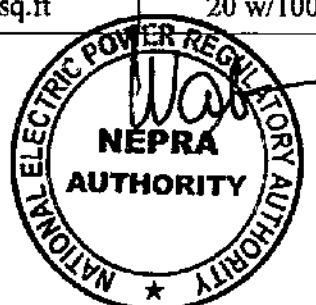
Percentage of Load Factor for Different Types of Connections

Sr. No.	CATEGORY OF CONNECTION	Load factor to be charged
A-1 GENERAL SUPPLY TARIFF - RESIDENTIAL		
01	Single Phase	20%
02	Three Phase	25%
A-2 GENERAL SUPPLY TARIFF - COMMERCIAL		
03	Single Phase	20%
04	Three phase	25%
A-3 GENERAL SERVICES		
05	Single phase	15%
06	Three phase	20%
B INDUSTRIAL SUPPLY		
07	B-1 except for ice factories, Plastic Molding, Rice shellers	40%
08	B-2, except Ice Factories, Plastic Molding, Rice shellers	50%
09	Ice Factory	70%
10	Plastic Molding Industry, Rice Sheller	50%
11	B-3 Textile Mills and Steel Furnaces Melting Industry and all other continuous industry	60%
12	Other normal Industry like Engineering Works	50%
13	Flour Mills B-2 & B-3	40%
14	B-4	50%
TUBEWELLS		
15	Agricultural Tubewells installed in perennial area/ river belts	15%
16	Agricultural Tubewells installed in non-perennial area	50%
17	Scarp Tubewells	50%
MISCELLANEOUS		
18	Tariff H for Housing Colonies	15%
19	Other Bulk Power supply	15%
20	Temporary Supply (E1, E2)	20 %
21	Street Lights (G)	40%

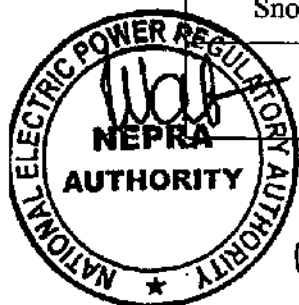


Annexure - VI
Load Assessment Criteria for Housing Societies, High-rise Buildings,
Commercial Plazas, Multi-storey Buildings, etc.

Description	Size of Plot	Load Assessment	
	Square Yard		
Individual Houses in Housing Schemes	Up to 75	3.15 kW	
	Above 75 up to 125	5.0 kW	
	Above 125 up to 200	5.70 kW	
	Above 200 up to 250	6.60 kW	
	Above 250 up to 300	7.45 kW	
	Above 300 up to 350	8.75kW	
	Above 350 up to 400	9.5 kW	
	Above 400 up to 500	10.61 kW	
	Above 500 up to 600	13 kW	
	Above 600 up to 1000	17.74 kW	
The above load criteria is for houses with double storey (Ground + 01) however, for single storey the same shall be taken as half.			
Farm Houses/ plots (Area: above 2 kanals)			
• Load of first 2 Kanals will be assessed @ 17.74 kW. • 1/4th area of rest of the plot will be assessed @ 0.4 kW per Marla.			
Apartments	Area	Maximum Load Assessment	
		Urban/Upper Areas	Rural/Lower Areas
	Up to 700 Sq.ft	125 w/100 sq.ft + 50 % flats with 1 AC of 1.5 kW	100 w/100 sq.ft with 25 % flats with 1 AC of 1.5 kW
	701-900 Sq. ft	150 w/100 sq.ft + 50 % flats with 1 AC of 1.5 kW	125 w/100 sq.ft with 25 % flats with 1 AC of 1.5 kW
	901-1200 Sq. ft	175w/100 sq.ft + 100 % flats with 1 AC of 1.5 kW	150 w/100 sq.ft + 30 % flats with 1 AC of 1.5 kW
	1201-1600 Sq. ft	175 w/100 sq.ft + 100 % flats with 2 ACs of 1.5 kW each	150w/100 sq.ft + 50 % flats with 1 AC of 1.5 kW
	Above 1600 Sq. ft	200 w/100 sq.ft + 100 % flats with 2 ACs of 1.5 kW	175w/100 sq.ft + 100 % flats with 1 AC of 1.5 kW
Shops / Clinics	Any Area	1000 w/100 sq.ft (AC load inclusive)	500 w/100 sq.ft (AC load inclusive)
Super Market	Any Area	1000w/100 sq.ft (AC load inclusive)	800 w/100 sq.ft (AC load inclusive)
Offices	Any Area	700 w/100 sq.ft (AC load inclusive)	500 w/100 sq.ft (AC load inclusive)
Covered Godown	Any area	50 w/100 sq.ft	40 w/100 sq.ft
Open Godown	Any Area	25 w/100 sq.ft	20 w/100 sq.ft



Corridors	Any area residential	40 w/100 sq.ft	30 w/100 sq.ft
	Any area offices	60 w/100 sq.ft	50 w/100 sq.ft
	Any area commercial activity	75 w/100 sq.ft	60 w/100 sq.ft
Parking/ Air Raid Shelter	Any Area	60 w /100 sq.ft	60 w /100 sq.ft
	Where building has air raid shelter and a car ramp then the load will be assessed for air raid shelter however, if stairs are available instead of car ramp then it will be considered as commercial space and the load will be assessed accordingly.		
Mezzanine Floor	The Mezzanine floor which has been provided with concrete slabs and divided into two floors, the load shall be assessed for two separate floors, otherwise it will be taken as single floor.		
Marriage halls	Any Area	250 W/ 100 sq.ft + 1 AC of 1.5 kW for office	250 W/ 100 sq.ft + 1 AC of 1.5 kW for office
Banquets	Any Area	1000 W/ 100 sq.ft (AC load inclusive)	700 W/ 100 sq.ft (AC load inclusive)
Community Hall / Centre	Any Area	250 W/ 100 sq.ft + 1 A Cof 1.5 kW	200 W/ 100 sq.ft + 1 AC of 1.5 kW
Restaurants	Any Area	1000 w/100 sq.ft (AC load inclusive)	800 w/100 sq.ft (AC load inclusive)
Open Air Restaurants	Any Area	250w / 100sq.ft	200w / 100sq.ft
Children Play Area (Covered/Within Boundary)	Any Area	150w / 100sq.ft	100w / 100sq.ft
Health Club / Recreation Club	Any Area	500 w/100 sq.ft (AC load inclusive)	200w/100 sq.ft (AC load inclusive)
Swimming Pool	Any Area	5 kW	4 kW
Plant Nursery	Any Area	4 kW	3 kW
Schools / Colleges/ University/Coaching/ Centre/IT Institutes	Any Area	150 w/100 sq.ft for constructed area with 1 AC of 1.5 kw for office	100 w/100 sq.ft For constructed area
Parks	Any Area	3 kW	2 kW
Madrasa	Any Area	150 w/100 sq.ft.	100 w/100 sq.ft.
Places Of Worship	Any Area	150 w/100 sq.ft.	100 w/100 sq.ft.
Hostel	Any Area	100 w/100 sq.ft. AC load as per actual	100 w/100 sq.ft and AC load as per actual
Library	Any Area	400 w/100 sq.ft (inclusive AC load)	300 w/100 sq.ft and AC load as per actual.
Snooker Club	Any Area	500 w/ 100 sq.ft (AC load inclusive)	250 w/100 sq.ft and AC load as per actual
Lift	-	7 kW OR as per technical specifications	7 kW OR



			as per technical specifications
Street Lighting	-	60W (LED) per pole 100 W (others) per pole	60W (LED) per pole 100 W (others) per pole
Water Pump	-	5 kW OR as per technical specifications	5 kW OR as per technical specifications

Note:

(I): Installation of transformer shall be proposed at 80% of the name plate capacity which includes transformer loading position and power factor. For example, in case of 80kw load a transformer of 100 kVA will be installed.

(II): The above load assessment criteria is for determination of ultimate load demand of any un-electrified Housing society/housing schemes/colony/Commercial Plaza/High Rise Building/ Multi-storey Building for the purpose of electrification design. The load of premises such as hospitals, hotels, petrol pumps etc. have to be assessed as per applied load/information provided by the consumer/applicant. However, at the time of providing individual connections; the load declared in the Application Form by the applicant will be considered as the connected load, subject to provision of the test report issued by the Electric Inspector or his authorized wiring contractor and verified by DISCO.

(III): The following formula will be applicable for assessment of ultimate load demand:

Total Ultimate Assessed Load =

$$\frac{(\text{Total Sum of Load}) \times (\text{Development Factor})}{\text{Diversity Factor}}$$

Where:

a) Development Factor:

- i. Housing societies/schemes-----85%
- ii. Multi-storey buildings/commercial plazas/high-rise buildings-----100%

b) Diversity Factor-----125%

(IV): ADJACENT HOUSING SCHEMES/ SOCIETIES MULTI-STOREY BUILDINGS

Adjacent Housing Schemes/societies multi-storey buildings etc., belonging to the same owner/party/sponsor, shall be treated in totality for assessment of ultimate load demand, however, if there is a gap of two years in approvals of LOP/ Map of the schemes by civic agency and approval of electrification by DISCO, then such schemes will be treated separately for assessment of load. Further, in case of extension of any housing scheme/buildings, the earlier assessed load shall be considered final and the additional load will be clubbed with the already approved load.

