REGISTERED No. M - 302
L.-7646

The Gazette of Pakistan

EXTRAORDINARY
PUBLISHED BY AUTHORITY

ISLAMABAD, THURSDAY, OCTOBER 24, 2024

PART II

Statutory Notifications (S. R. O.)

GOVERNMENT OF PAKISTAN
MINISTRY OF ENERGY
(Power Division)
[NATIONAL ENERGY EFFICIENCY AND CONSERVATION AUTHORITY]

NOTIFICATION

Islamabad, the 18th October, 2024

S. R. O. 1646(I)/2024.—In exercise of the powers conferred under section 21 of the National Energy Efficiency and Conservation Act, 2016 and pursuant to clause 5.7 (6) of National Electrical Vehicles Policy 2019, the Pakistan Energy Efficiency and Conservation Board, makes the following regulations, namely:-

PART-I

PRELIMINARY

1. **Short title, extent and commencement.**—(1) These regulations shall be called "National Energy Efficiency and Conservation Authority (Pakistan Electric Vehicles Charging Infrastructure and Battery Swapping Regulations 2024)".

Price : Rs. 40.00

[8786 (2024)/Ex. Gaz.]

(2) These regulations shall be effective from the notification in the official gazette and shall be applicable for Electric Vehicles Charging Stations (EVCS) and Battery Swapping Stations (BSS) installed and located within the service territories of the Distribution Licensees and Electric Power Supply Licensees, commonly known as KE and DISCOS of NEPRA:

Provided that the Electric Vehicle Charging Stations (EVCS) and Battery Swapping Stations (BSS) already installed prior to the effective date of these regulations shall not be required to meet the requirements of these regulations unless substantial modification to the charging and battery swapping stations is proposed in accordance with the criteria specified in these Regulations:

Provided further that the EVCS/BSS installed prior to the notification of these Regulations shall be required to get themselves registered before NEECA by filing an application identifying their particulars only and after the registration, these regulations will apply to them for the purposes of monitoring and enforcement.

(3) The "Authority" established under section 6 of the Act shall be responsible to administer these regulations for installation, monitoring, inspection and enforcement of Electrical Vehicle Charging Stations and Battery Swapping Stations.

2. Purpose.—The purpose of these regulations is to facilitate and encourage the use of electric vehicles with the following objectives:

(a) To facilitate and encourage the use of electric vehicles in the country.

(b) Ensuring ease of doing business through One-window Operation.

(c) Implementation of cost-effective electricity tariffs specifically for EV charging and Battery Swapping, making it economically viable for consumers.

(d) Encouraging public and private partnerships to expand the EV charging network, ensuring widespread availability and reliability.

(e) Promoting small-scale enterprises in the EV sector, such as charging station and battery swapping operations.

(f) Lowering emissions by supporting the entire EV Ecosystem.

(g) Promoting readiness of the Electrical Grid for EV charging.

3. **Definitions.**—(1) In these regulations, unless there is anything repugnant in the subject or context—

(i) "**Act**" means the National Energy Efficiency and Conservation Act, 2016.

(ii) "***Applicant***" means any individual or Company who wants to set up or operate Electric Vehicle Charging Station or Battery Swap Station.

(iii) "***Application***" means an application made by applicant in accordance with the provisions of these regulations.

(iv) "***Authority***" means the National Energy Efficiency and Conservation Authority (NEECA) established under Section-6 of the Act.

(v) "***Battery Charging Station***" means an electrical component, assembly or cluster of component assemblies designed specifically to charge batteries within electric vehicles including the "Battery Swapping Station (BSS)".

(vi) "***Battery Swapping Station (BSS)***" means a station where a discharged and partially charged battery of an Electric Vehicle can be swapped for a fully charged battery.

(vii) ***Charging levels*** means the standardized indicators of electrical force, or voltage, at which an electric vehicle's battery is charged/recharged as per the following "Levels":-

(a) "Level 1" means charging through a single phase 220 – 240 volt with alternating-current (AC) plug drawing power up to 3.3 KW. There is slow charging in this level and relevant for this level is for standard charging and it does not require the installation of charging equipment. The most common place for charging at Level 1 is at the vehicle owner's home and is typically conducted overnight.

(b) "Level 2" means charging through a three phase 240 – 415 volt with AC plug drawing power between 3.3-22 KW and requires installation at home, captive or public charging equipment. Charges as per this level is commonly to be installed in urban settings i.e. public parking areas, places of employment and commercial places.

(c) "Level 3" means charging through a high voltage Direct-Current (DC) plug drawing power more than 50 KW. Due to their high cost and extremely high-power draw, Level 3 chargers shall typically be installed on motorways, existing petrol stations and in commercial or industrial locations rather than residential.

(d) "Level 4" means charging through a high voltage Direct-Current (DC) plug drawing power more than 150 KW. Due to their high cost and extremely high-power draw, Level 4 chargers shall typically be installed on motorways, existing petrol stations and in commercial or industrial locations rather than residential.

(e) "Level 5" means charging through a high voltage Direct-Current (DC) plug drawing power more than 350 KW. Due to their high cost and extremely high-power draw, Level 5 chargers shall typically be installed on motorways, existing petrol stations and in commercial or industrial locations rather than residential.

(viii) **"Distribution Licensee"** means a licensee of NEPRA in terms of section 20 of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997.

(ix) **"Enforcement Officer"** means any officer/official of Authority or Third Party designated or so empowered as such by the Authority for the purpose in terms of the provisions of Section 22(1) of the Act.

(x) **"Electric Vehicle"** means a vehicle that operates either partially or exclusively on electric energy and it includes an electric vehicle which is parked at an electric vehicle charging station and is connected to the charging station equipment and it also includes a Plug in Hybrid Electric Vehicle.

(xi) **"Electric Vehicle Charging Station (EVCS)"** means an electric vehicle charging station where the battery charging station is located within accessible reach of a barrier-free access bay and where any Electric Vehicle can get its battery recharged or get its discharged battery or partially charged battery swapped by a charged battery:-

a. ***Private Captive Use*** means an electric vehicle charging station that is: "Privately owned charging station or battery swapping stations (Level-2 and above) exclusively for electric vehicles owner or under the control of owner of the charging station e.g. Government Departments, Bus/Truck Depots,

charging stations owned by Private Fleet Owners/Companies and shall not be used for commercial purpose of charging other vehicles."

b. ***Public Use*** means an electric vehicle charging station that is: "A charging station installed on any public place for commercial use like shopping mall/mart, parking plaza, highway, motorway, park etc."

(xii) ***"Electric Vehicle Supply Equipment (EVSE)"*** means any equipment or electrical component used in charging electric vehicles at a specific location but it does not include equipment located on the electric vehicles themselves.

(xiii) *"Electric Power Supply Licensee" means a licensee of NEPRA in terms of section 23-E of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997.*

(xiv) ***"Electric Vehicle Charging Infrastructure"*** means conduit/wiring, structures, machinery, and equipment necessary and integral to support an electric vehicle, including battery charging stations, an exclusive transformer, civil works, cabling electric works, sufficient space for charging and fire protection equipment.

(xv) ***"Electric Vehicle Parking Space"*** means any marked parking space that identifies the use to be exclusively for the parking of an electric vehicle.

(xvi) *"NEPRA" means the National Electric Power Regulatory Authority established under the Regulation of Generation, Transmission and Electric Power Act, 1997.*

(xvii) *"Owner or Operator" means any person who is operating an* Electric Vehicles Charging Station and Battery Swapping Station and is registered in accordance with these Regulations.

(xviii) **"Plug-in-Hybrid Electric Vehicle"** means a vehicle that:

(a) Contains an internal combustion engine and allows power to be delivered to driving wheels by an electric motor.

(b) Charges its battery primarily by connecting it to the grid or other off-board electrical source.

(c) May additionally be able to sustain battery charge using an on-board internal-combustion-driven generator: and

(d) Has the ability to travel powered by electricity.

(xix) ***"PSQCA"*** *means the Pakistan Standard and Quality Control Authority.*

(xx) ***"Sale Price/Margin"*** means an amount (in PKR) announced for EVCS by NEPRA as a rate per unit of electric power (kWh) duly notified and displayed on the NEPRA website.

(2) Words and expression used, but not defined in these regulations, shall have the same meaning as in the Act or in any enabling rules and regulations.

PART-2

REGISTRATION

4. **Registration.**—(1) The Electric Vehicle Charging Stations/Battery Swapping Stations can be established/installed by any person including an Individual, Association of Person, Company, Entity, Oil Marketing Companies etc.

(2) No Electric Vehicle Charging Stations/Battery Swapping Stations (EVCS/BSS) shall be constructed, developed, designed, built, and installed, unless it is duly registered before the NEECA, as per the requirements set forth in these Regulations as well as the requirements defined in other laws, rules, regulations, codes, and standards of Federal, concerned Provincial Governments, Regulatory Authorities and Local Bodies for the purpose.

(3) The application for registration can be filed subject to fulfilment of technical, safety, and performance standards specified in this regulations and as well as through following the procedure provided in these Regulations.

(4) The application for the registration shall be submitted to the Authority as per format provided in the **Schedule-A** of these regulations along with the non-refundable fee as prescribed in **Schedule-B** of these Regulations.

(5) The applicant shall, also, provide the information:

(a) The type of charging infrastructure, its location, the specification, and number of chargers to be installed etc., at the charging infrastructure sought to be registered.

(b) Necessary approval from the local municipal authorities as well as the permissions related to use of land or any other applicable NOCs.

(c) Details of feasible location along highways, public parking spaces, bus terminals, etc. and provide the same along with the application for registration as prescribed in the **Schedule-A.**

(6) The applicant shall be required to fulfill the following general requirements for Vehicle Charging Infrastructure:

(a) It should be having a standard size parking space to be used for an electric vehicle charging station.

(b) Charging station equipment mounted on pedestals, light posts, bollards or other devices shall be a minimum of 12 inches clear from the face of curb.

(c) Charging station outlets and connector devices shall meet the standards as specified in this regulation. It shall be mounted and located as not to impede pedestrian movement or create trip hazards on footpaths.

(d) In case the electric vehicle parking space is perpendicular or at an angle to curb face and charging equipment, then the information as to use of wheel stops or concrete- filled steel bollards.

(7) The applicant shall also provide the information regarding Charging Infrastructure as per the following details:-

(a) Current types of charging ports or connectors guns that are prevalent and used by most vehicle manufacturers such as CCS2 (Combined Charging System Combo-2), GB/T, Mennekes (Type2), Tesla and CHadeMO (CHArge de Move) or equivalent to ensure compatibility and support for a wide range of electric vehicles.

(b) In case of installation of Chargers other than below specified chargers, then it will be subject to equivalent standards complying with technical and safety standards.

Table 2.1 Charging Port Connector Standard

Charging Systems	IEC 61851-1	IEC 62752
	IEC 61851-21-2	IEC 61000-2-2
	IEC 61851-23	IEC 61000-2-4
	IEC 62196-1	IEC 61000-3-12
	IEC 62196-2	IEC 60363-4-41
	IEC 62196-3	

Charging Systems	GB/T 18487	GB/T 27930
	GB/T 20234-1	
	GB/T 20234-2	
Battery Swap Systems	IEC 62840-1	IEC 61960-3
	IEC 62840-2	IEC 62133
	IEC 61951-1	IEC 60622
	IEC 61951-2	IEC 63066

(c) If installation of EVCS according to Energy Conservation Building Code (ECBC) 2023 as per below table 2.2 for new or reconstructed parking structures or lots / plazas is required then the proof to meet with following conditions:-

(i) It includes a new off-street parking facility with more than 10 spaces;

(ii) The parking with 20 or more spaces is increased by 30 percent or more.

(iii) The Fuel station layout is designed with the provision of parking spaces designated for Electric Vehicles including Canopy on Chargers (in case of open space).

(iv) The allocated spaces are having safety precautions *e.g.* barricaded parking space and safety barrier for charger protection etc.

Table 2.2

EV Charging Requirements for New and Reconstructed Parking Structures

Land Use Type	Percentage of Parking Spaces
High-rise Residential	5-10%
Retail, Restaurants	2%
Office, medical	3%
Industrial	1%
Institutional, municipal	3%
Recreational/entertainment/cultural	1%
Other	3%

(8) For the purposes of scrutiny of the application to ensure it is filed as per the requirements set forth in these Regulations, the Authority shall formulate a "Committee" comprising of Authority's professionals, the representatives from the concerned DISCO/Electric Power Supplier, and representatives from Local District Administration or any other Authority.

(9) The Committee will be chaired by representative of Authority which shall be nominated by the Managing Director of the Authority and the said Committee will act as Single Window Facility for registration of the application on a fast track basis.

(10) The Committee shall, within fifteen (15) working days following the date of receipt of an application, ascertain whether; the application is as per the **Schedule-A** of these Regulation, that other information prescribed in these regulations is provided and that the application is complete or deficient. If the application is found to be complete in all respect, the **"Certificate of Registration"** will be issued accordingly.

(11) Where an application is found to be incomplete or deficient, the applicant shall be notified by the Committee to furnish the deficient information and documents within fifteen (15) working days of receipt of said notice; provided, however that the Committee may extend the time for submission of deficient information and documents for a period not exceeding (07) working days.

(12) In case an applicant fails to remedy the incompleteness or deficiencies in the application within the time period allowed under sub-regulation (11), the application shall be rejected by the Committee, however, prior to the rejection of application, opportunity of hearing shall be provided to the applicant within ten (10) working days.

(13) The Public EVCS/BSS will be accessible through Web-Portal/ Mobile App. Public EVCS/BSS operators shall maintain active internet connectivity for EV owners to enable online reservation of available charging slots / charged batteries. Operators shall display the information on location, EVCS installed type, number of chargers, and sale price/margin etc.

PART-3

DESIGN CRITERIA AND OTHER REQUIREMENTS

5. (1) Charging station equipment shall be maintained in all respects, including the functioning of the charging equipment. A phone number or other contact information shall be provided on the charging station equipment for reporting in case of emergency or when the equipment is not functioning, or other problems are encountered.

(2) Electric Vehicle Charging Stations, other than private use, shall have posted signage, allowing only charging electric vehicles to park in such spaces. Signage for parking of electric vehicles shall include:

(a) Information on the charging station to identify voltage and amperage levels and any time of use, fees, or safety information.

(b) Restrictions shall be included on the signage, if removal provisions are to be enforced by the property owner.

(c) As appropriate, directional signs to effectively guide motorists to the charging station space(s).

(d) Site lighting shall be provided to maintain appropriate illuminance levels at EVCS as stipulated in the Energy Conservation Building Code (ECBC)-2023 open space/commercial area lighting requirements.

(e) Appropriate, directional signs to effectively guide motorists to the charging

(f) Where electric vehicle charging points are provided in the parking lots or parking garages, accessible electric vehicle charging points shall be provided according to the ratios shown in Table 3.1. The first column indicates the number of parking bays / spaces provided on-site and the second column indicates the number of accessible charging points that are to be provided for the corresponding number(s) of parking bays / spaces.

(g) The applicant will provide reservation mechanism to its customers to ensure smooth and efficient operations. It is highly recommended to use a dedicated charging point to entertain customers with assigned reservations.

(h) Accessible electric vehicle charging points should be located in close proximity to the building or facility entrance and shall be connected to a barrier-free accessible route of travel. It is not necessary to designate the accessible electric vehicle charging points exclusively for the use of disable persons.

(i) 24/7 operation will be ensured by applicant to maintain uptime more than 90%.

(j) EVCS parking spaces are to be included in the calculation for both the number of minimum and maximum parking spaces required, as provided by the ECBC-2023.

(k) EVCS parking spaces, where provided for public use, are reserved for parking and charging electric vehicles only, except as otherwise provided by the ECBC-2023.

(l) Electric vehicles may be parked in any space designated for public parking, subject to the restrictions that would apply to any other vehicle that would park in that space.

(m) No person shall stop, stand or park any non-electric vehicle in a space designated through signage as an electric vehicle charging station. Any non-electric vehicle is subject to removal by the applicant.

(n) Any electric vehicle in an electric vehicle parking stall that is signed exclusively for electric vehicle charging and that either (1) is not electrically charging or (2) is parked beyond the days and hours designated on regulatory signs posted at or near the space shall be subject to removal as posted by the property owner or the property owner's agent.

Table 3.1

Minimum Number of Accessible Electric Vehicle (EV) Charging Points in new /renovated parking lots / plazas

Number of Parking Bays / Spaces	Minimum accessible EV Charging Points
5–50	1
51–100	2
101–150	3

PART-4

BATTERY SWAPPING STATION

6. (1) Batteries at Battery Swapping Station (BSS) shall be tested and certified as per relevant standards incorporated in Table 2.1 of the regulations or any other equivalent standards.

(2) The Authority may require additional specifies test procedures for the basic characteristics of performance, reliability and electrical functionality for battery packs and systems for the batteries.

(3) BSS should have the safety requirements of battery swap system shall be in compliance with the IEC 62840-2:2016 or equivalent PSQCA safety standards.

(4) The safety requirements of the battery swap system and/or its systems requires:

(a) Security requirements for communication.

(b) Electromagnetic compatibility (EMC).

(c) Signs and instructions.

(d) Protection against electric shock and other hazards.

(5) BSS operator shall have compliance to:

(a) Lane system – used to transfer the EV to a designated location in readiness for battery handling.

(b) Battery handling system – consist of swap equipment and transfer equipment. Battery handling system is not required for 2/3 wheeler EVs.

(c) Storage system – used to store the Swappable Battery System (SBS) safely.

(d) Charging system – used to charge the SBS safely.

(e) Supervisory and Control system – applicable to automated BSS.

(f) EVCS owner may provide Battery Swapping Management Software/Mechanism for battery swapping consumers to ensure smooth process.

(6) BSS (Swappable Battery Mechanism) shall comply with applicable standardized regulations, for battery size, type, and swapping mechanism across various two/three wheelers models/brands, to ensure compatibility, and inter-operability across a wider network of Battery Swapping Stations.

PART-5

TARIFF

7. (1) Charging of Electric Vehicles will be considered as a service on Charging Stations installed for Public/Commercial/Private Captive use as well as Battery Swapping Stations.

(2) The Owners/Operators shall charge such tariff from their consumers, as determined and approved by NEPRA from time to time and while determining such tariff, NEPRA may consider the Guidelines of the Federal Government on the subject.

(3) A separate metering setup for EV charging, excluding auxiliary services such as lighting, mini-marts, and service areas, while sharing the same connection

(4) EVCS shall be subject to all the provisions of the Consumer Services Manual of concerned Electric Power Supplier.

PART-6

OPERATION AND MAINTENANCE

8. **Operation**.—(1) EVSE shall be set up in compliance with relevant PSQCA standards, as stipulated in Table-2.1 of the regulations and codes to ensure proper calibration, accurate metering, and transparency.

(2) EVSE shall be capable to provide a technical basis for billing options, metering accuracy, and network connectivity;

(3) EVSE shall be capable of upgrades to enable Smart-grid-capability through Open Charge Point Protocol (OCPP) transmission and an integrated 4G/5G modem:

(4) EVSE shall not create faults (typically through a circuit breaker/overcurrent protection), harmonics, and frequency misbalance in the distribution network;

(5) EVSE shall have the capability to detect and monitor faults and generate signals/alarms in case of any fault is detected. 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;

(6) EVSE shall be connected to energy management systems (EMS) through the standardized EEBUS protocol for energy management, data exchange, and control;

(7) 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;

(8) A portable socket-outlets or adaptor shall not be used for electric vehicle charging.

9. **Maintenance & Inspection.**—(1) 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 un-expected 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.

(2) The owner of the charging station shall plan and conduct periodic preventive maintenance based on the manufacturer's instructions/manual or as specified by the Authority.

(3) The owner of the charging station shall ensure that inspection and testing of the charging station is carried out by the Enforcement Officer of the Authority on *yearly basis* or at the time of *any major breakdown* and the report of inspection / testing shall be submitted to the Authority.

(4) The original record of inspection, maintenance, and testing shall be retained and preserved by the owner for three (03) years.

PART-7

SAFETY REQUIREMENTS FOR CHARGING STATIONS (EVCS) AND BATTERY SWAPPING STATIONS (BSS)

10. (1) All Electric Vehicles Charging Stations (EVCS) as well as the Battery Swapping Stations (BSS) shall be designed and installed in accordance with the safety standards set forth in this Chapter.

(2) The EVCSs shall be installed according to manufacturer's instructions and applicable legal requirements during construction and installation including but not limited to the safety standards/codes issued by any regulatory body of Pakistan, including Pakistan Standards & Quality Control Authority.

(3) All the EVCSs shall also be obligated to adhere to the safety standards provided by the manufacturers and the EVCSs shall also be compliant to the safety standards provided by the Electric Power Suppliers and the concerned Consumer Service Manual so designed and applied by the Electric Power Supplier.

(4) All EVCSs and BSSs 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).

(5) It shall be the responsibility of the owner of EVCS/BCS that:-

(a) It coordinates with the Authority or the Electric Power Supplier to obtain EVSE installation requirements, specifications, and other relevant information and documents. This includes any interconnection documents required by the Electric Power Supplier for new service requests and sites requiring a service upgrade; Provided that the DISCO (Electric Power Supplier) 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 adopted by the PSQCA as stipulated in Table-2.1 of the regulations.

(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 un-controlled 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 by passed 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 in-effective.

(t) ISO 15118 must be complied to meet encryption requirements that improves resilience from cyber-attacks.

(u) 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 and in IEC 62477-1, IEC 60309, IEC 60947.

(v) Power supply cables used in charging stations or charging points shall conform to manufacturer's instructions/specifications or IEC 62893-1 standard.

(w) The safety provisions of all Alternating Current charging stations shall be in accordance with IEC 61851-1, IEC 61851-21 and IEC 61851-22 or equivalent or PSQCA specified standards.

(x) The safety provisions of all Direct Current charging stations shall be in accordance with IEC 61851-1, IEC 61851-21, IEC 61851-23 and IEC 61851-24 and any other equivalent standards for all EVCS/BSS equipment's.

(y) Disposal and recycling of the electric batteries shall be done as per the guideline issued by the Federal and Provincial Environmental Protection Agencies.

PART-8

ENFORCEMENT

11. (1) If the owner of an EVCS/BSS is found to be in violation of the provisions of these regulations, Enforcement Officer shall be responsible for administering the violation.

(2) The Enforcement Officer shall have power as per the NEEC Act 2016.

(3) The Authority shall be empowered to impose fine, as per Section-18 of the NEEC Act 2016, for any of the violations of any provision of these regulations.

PART-9

EFFECTIVENESS, INTERPRETATION, SEVERABILITY

12. (1) These regulations shall become effective immediately upon notification in the official gazette.

(2) The invalidity of any section or provision of these regulations shall not invalidate any other section or provision of these regulations.

(3) The provisions of these regulations shall have overriding effect, notwithstanding anything contained in any other regulations / provisions pertaining to EVCS/BSS , as the case may be, after the coming into force of these Regulations.

13. **Removal of difficulties**.—(1) If any difficulty arises in giving effect to any provision of these Regulations, the Authority under the NEEC Act may make such order not inconsistent with the provisions of the NEEC Act, 2016 or the Guidelines of the Government of Pakistan on the subject.

(2) Provided that no such order shall be made after the expiry of two (02) years from the coming into force of these Regulations.

National Energy Efficiency & Conservation Authority (NEECA)
Sector G-5/2, Near State Bank of Pakistan
Islamabad, Pakistan

Schedule-A

APPLICATION FORM FOR REGISTRATION OF ELECTRIC VEHICLES CHARGING INFRASTRUCTURE.

I. USE OF THE EV CHARGING STATION/BATTERY SWAPPING STATION

(Select whichever is applicable) Public Use / Private Captive Use

II. APPLICANT DETAILS

1. Name of the Applicant (Company/Individual)

2. Company Registered under (not required for individuals):

3. Complete Address of the Company/Individual:

4. Details of the Person(s) authorized to apply on behalf of Company/Individual.

a) Full Name:

b) Designation c) Landline Number

d) Mobile Number e) Email ID

5. NTN Number of Applicant

6. GST Number of Applicant

III. LOCATION OF THE PROPOSED SITE

1. Site Complete Address

a) Tehsil b) District

c) Province

2. Geo-graphical Co-ordinates of Site

3. Type of Land Ownership

IV. ELECTRIC POWER SUPPLIER DETAILS

a) Name of DISCO

b) Name & Address of Sub Station of DISCO

c) Sub-Station Distance from Proposed Site (in Kms)

V. DETAILS OF CHARGING STATION

a) Type of Charger

b) Charger Level

c) Number of Chargers

d) Capacity of each Charger (KW)

e) Number of Guns for each charger

f) Details of Network Service Provider

VI. DETAILS OF BATTERY SWAPPING STATION

a) Number of Swapping Cabinet/Slots

b) Battery Type

c) Battery Capacity and Rating

VII. PLANNED DURATION FOR COMMISSIONING OF THE PROJECT. (MONTHS)

VIII. DETAILS OF REGISTRATION FEE

a) Amount Paid:

b) Mode of Payment:

c) Bank Name:

d) Reference Number:

e) Transaction Date:

IX. DECLARATION

☐ I/We certify that all information furnished is true to the best our knowledge.

☐ I/We abide by the rules and regulations, terms and conditions laid down by NEECA or any other Government departments.

☐ I/We will submit the required information and give access to our EV charging infrastructure site as and when required.

National Energy Efficiency & Conservation Authority (NEECA)
Sector G-5/2, Near State Bank of Pakistan
Islamabad, Pakistan

X. ENCLOSURES

1. Registration fee by way of Demand Draft, drawn in favor of NEECA, payable at NEECA Bank Account.
2. Certified copy of the Authority confirming powers on the person(s) who are competent to apply for Registration of EVCS/BSS with NEECA.
3. NOCs from DISCOs, Environmental Protection Agency (EPA), National Highway Authority (NHA) or any other relevant authority.
4. Layout of Charging Infrastructure.
5. Any other relevant information as and when required by the NEECA.

NOTE: The Authority may change **Schedule-A** from time to time as required.

National Energy Efficiency &
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Sector G-5/2, Near State Bank of Pakistan
Islamabad, Pakistan

Schedule-B

1. Applicant Registration Fee:

   PKR 50,000 per EVCS

2. Annual Registration/Inspection Fees:

   Each EV Charging Station is subject to the following annual registration fee:

   a. PKR 35,000 for Level 2
   b. PKR 50,000 for Level 3
   c. PKR 65,000 for Level 4
   d. PKR 80,000 for Level 5

3. Violations:

   Failure to adhere or non-compliance to any clause or provision of the Pakistan Electric Vehicle Charging Infrastructure and Battery Swapping Station Regulations during inspection by the enforcement officer or third-party inspection following penalties will be imposed:

Penalty for violations:

   a. PKR 100,000 on first violation
   b. PKR 500,000 on second violation
   c. Revocation of Registration on third violation

NOTE: The Authority may change **Schedule-B** from time to time as required.

[F. No. 1(13)/7/SMO-MD SEC BOARD/2024/NEECA.]

DR. SARDAR MOHAZZAM,
Managing Director.

National Energy Efficiency &
Conservation Authority (NEECA)
Sector G-5/2, Near State Bank of Pakistan
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PRINTED BY THE MANAGER, PRINTING CORPORATION OF PAKISTAN PRESS, ISLAMABAD
PUBLISHED BY THE DEPUTY CONTROLLER, STATIONERY AND FORMS, UNIVERSITY ROAD, KARACHI