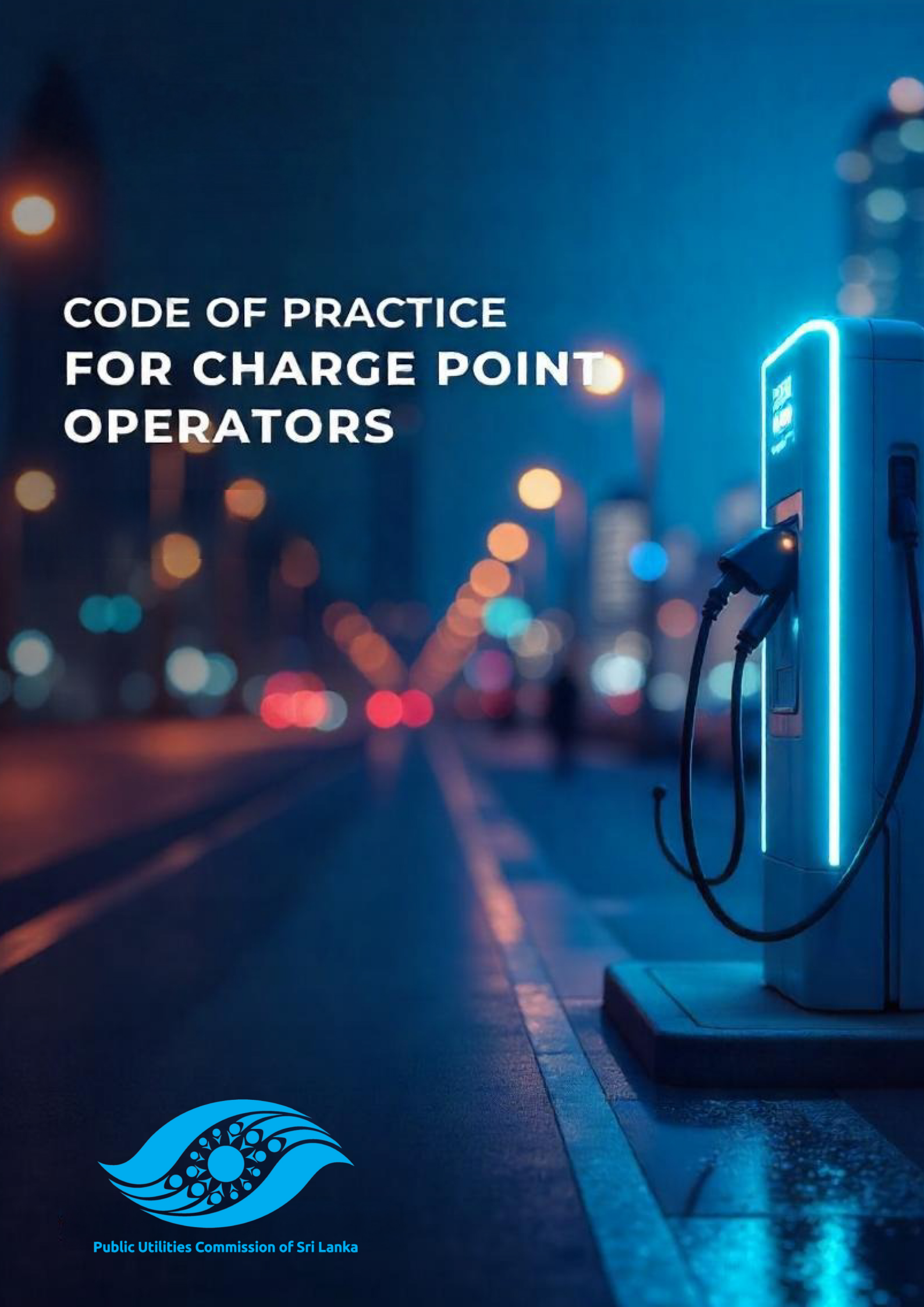
CODE OF PRACTICE FOR CHARGE POINT OPERATORS



Public Utilities Commission of Sri Lanka

Contents

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Definitions

Abbreviation	Term	Definition
API	Application Programming Interface	A set of protocols and tools that allow different software applications to communicate and interact with each other.
AP	Authorized Person	A person appointed by an Exempted Person to act as the point of contact in relation to the Exempted Person's Distribution System.
	Breakdown	An occurrence relating to equipment of the supply system which prevents its normal functioning.
BS	British Standards	Specifications and guidelines developed by the British Standards Institution (BSI) to ensure quality, safety, and consistency in products, services, and systems in the United Kingdom and internationally.
CCPMS	Central Charge Point Management System	A software platform that monitors, controls, and manages multiple EV charging stations, enabling efficient operations, data analysis, and user services.
CEA	Central Environmental Authority	A government body responsible for the protection and management of the country's environment.
	Certificate of Exemption	Certificate issued by the PUCSL under and in terms of Section 10 (2) of the Sri Lanka Electricity Act No. 20 of 2009 (as amended). exempting a person or a category of persons from the requirement of obtaining a license to distribute and/or supply electricity subject to the terms and conditions specified therein.
CHARdeMO	CHArge de MOve	A standard for charging electric vehicles.
CPO	Charge Point Operator	A legal entity that constructs, owns, and operates electric vehicle charging stations, obtains the necessary power supply from a distribution licensee, and resells electricity to all types of electric vehicle owners at reasonable prices, operating under a distribution and supply exemption.
CCTV	Closed Circuit Television	A system of video cameras used to transmit signals to a specific set of monitors for surveillance and security purposes.

COP	Code of Practice	A set of guidelines and standards that outline best practices, safety measures, technical requirements, and operational procedures to ensure the efficient, safe, and user-friendly installatioin, operation and management of electric vehicle charging infrastructure.
CCS	Combined Charging System	A standard for charging electric vehicles.
	Commission	Public Utilities Commission of Sri Lanka incorporated under the PUCSL Act No 35 of 2002.
	Consider	A duty to think about or deliberate on a matter which does not necessarily obligate the CPO to act in a specific way however, the weight and importance of the matter being considered depends on the context in which it is used and any accompanying obligations specified in the COP.
	Consumer	A unit holder within the Premises who consumes electricity and is connected to the Exempted Person's Distribution System.
CP	Contact Point	A designated phone number, email, or customer service channel that allows users to get in touch for assistance, inquiries, or support related to the charging station.
MUSSD	Department of Measurement Units, Standards & Services	A government body responsible for ensuring the accuracy and consistency of measurement systems, developing national standards, and providing related services to support trade, industry, and consumer protection.
DL	Distribution Licensee	A company licensed to carry out the distribution of electricity in terms of the Sri Lanka Electricity Act No. 20 of 2009 (as amended).
EV	Electric Vehicle	A vehicle powered entirely or partially by electricity, typically using energy stored in batteries or fuel cells, and driven by electric motors instead of internal combustion engines.
E-bike	Electric Bike	A bicycle equipped with an electric motor that assists propulsion, either by providing pedal assistance or full electric drive.
E-tuk tuk	Electric Tuk Tuk	A three-wheeled electric vehicle designed for passenger or cargo transport, powered by an electric motor instead of an internal combustion engine.
EVCS	Electric Vehicle Charging Station	A facility equipped with the necessary infrastructure to supply electrical energy for recharging the batteries of electric vehicles.
	Exempted Person	A person or category of persons exempted by the PUCSL from the requirement of obtaining a license to distribute and/or supply electricity under and in terms of Section 10 (1) of the Sri Lanka Electricity Act No. 20 of 2009 (as amended).

GPS	Global Positioning System	A satellite-based navigation system that provides location and time information anywhere on Earth, allowing devices to determine their precise position.
Heavy EV	Heavy Electric Vehicle	An electrically powered vehicle that falls within the heavy-duty vehicle category, typically including buses, trucks, and other large commercial or industrial vehicles.
IRS	Incident Reporting System	A platform developed by PUCSL to allow public to submit and track any incidents, accidents, or unsafe conditions in an organization or environment
IP	Ingress Protection	A standard rating system that classifies the level of protection provided by an enclosure against the intrusion of solid objects, dust, and water.
IET	Institution of Engineering and Technology	A professional organization based in the United Kingdom that promotes engineering and technology innovation, provides industry standards, and supports education, professional development, and research globally.
IEC	International Electrotechnical Commission	A global organization that develops and publishes standards for electrical, electronic, and related technologies to ensure compatibility, safety, and performance across industries.
kWh	kilowatt hour	A unit of energy that measures the amount of electricity used or produced over one hour at a rate of one kilowatt.
LISS	Licensee Information Submission System	A web flatform developed by the PUCSL in order to facilitate the submission of the licensee's data as required by the Commission.
LKR	Sri Lankan Rupees	The official currency of Sri Lanka and is denoted by the symbol "රු" or "Rs."
LOTO	Lockout-tagout	A safety procedure used in workplaces to ensure that machines or equipment are properly shut off and not started up again while maintenance or repair work is being done, preventing accidental injuries.
	Tariff Methodology	A method that specifies the procedure of determining the tariff.
NFC	Near Field Communication	A wireless technology that enables short-range communication between devices, typically within a few centimeters, for data exchange or contactless transactions.
OTP	One Time Password	A security feature that generates a unique, temporary code for a single use during authentication to enhance online security.
PPE	Personal Protective Equipment	Protective clothing, helmets, gloves, face shields, goggles, or other safety gear designed to protect individuals from health and safety risks at work or in specific environments.

	Planned Interruption	Disruption to the supply of electricity to the Exempted Person's Distribution System/ to the Consumer's unit to carry out routine operational and maintenance work.
PUCSL	Public Utilities Commission of Sri Lanka	Public Utilities Commission of Sri Lanka incorporated under the PUCSL Act No 35 of 2002.
QR Code	Quick Response Code	A two-dimensional barcode that can store information and is easily scanned using a smartphone or device to access data or perform actions quickly.
RFID	Radio Frequency Identification	A wireless technology that uses electromagnetic fields to identify and track tags attached to objects or devices for data exchange and authentication.
	Recommendation	A non-binding suggestion or advice provided by the Commission which is not mandatory or enforceable by law, but it carries persuasive authority or weight depending on the context.
SLS	Sri Lanka Standards	Official specifications and guidelines established by the Sri Lanka Standards Institution (SLSI) to ensure quality, safety, and consistency in products, services, and processes within the country.
	To the extent possible	Used to introduce a qualification or limitation on an obligation, indicating that the action should be carried out as far as it is feasible or practicable under the circumstances.
	Unplanned Interruption	Disruption to any part of the Exempted Person's Distribution System automatically or manually with no notice to affected parties, as a result of an electrical system abnormality or any other condition which poses a potential threat/damage to the Exempted Person's Distribution System and/or property and/or human life.
UI	User Interface	The visual elements and design through which a user interacts with a computer, software, or device, including buttons, icons, and menus.
V2G	Vehicle to Grid	A technology that enables electric vehicles to transfer stored energy back to the power grid, allowing bidirectional energy flow for grid stabilization and energy management.
	Where possible	Used to introduce a condition or qualifier that allows flexibility in fulfilling an obligation or taking an action implying that the requirement or recommendation should be followed only if it is feasible, practical, or achievable under the given circumstances.
Wi-Fi	Wireless Fidelity	A wireless networking technology that allows devices to connect to the internet and communicate with each other using radio waves, typically within a local area.

Preamble

This is the approved Code of Practice (COP) by the Commission in line with the empowerment given by the cabinet decision of 17/0613/706/041 in the year 2017 to regulate Electric Vehicle (EV) charging stations.

Further to the above, this COP is issued in accordance with Condition 5 of the Certificate of Distribution and Supply or Supply Exemption granted under section 10(1) of the Sri Lanka Electricity Act 2009 (as amended).

The COP also contains information on how a Charge Point Operator (CPO) shall prepare the processes and procedures for operating an Electric Vehicle Charging Station (EVCS). In supplying or offering terms for supply to an EV, the CPO shall not show undue preference, discriminate, or impose terms that will be unduly onerous. The COP is based on the prevailing regulations, rules, methodologies, guidelines, and other codes made.

1. Legal and Regulatory Compliance

Under section 10 (1) of the Electricity Act 2009 (as amended) and the Electricity (Applications for Licenses and Exemptions) Regulation, 2009, to sell electricity to Electric Propelled vehicles, the CPOs shall require obtaining ***Distribution and Supply or Supply exemption*** from the Public Utilities Commission of Sri Lanka (PUCSL). The CPO must comply with all regulations, codes, and guidelines issued by the Commission, including this COP, "Code on EV charging stations installation, maintenance and operation", Grid code, Distribution code, Electricity (Safety, Quality, and Continuity) Regulations No. of 2016, and all applicable IEC standards.

The PUCSL has the authority to revoke their Distribution and Supply or Supply exemption if the CPO is found to be in violation of the COP.

The CPO is required to adhere to IEC standards; however, at this stage, national standards based on IEC are also accepted. Nevertheless, the CPO must achieve full compliance with IEC standards within three (3) years from the publication of this document.

Note: ***Information on the application process for obtaining an exemption certificate from the Commission can be accessed through the Commission's website or by directly contacting the Licensing Division.***

2. Code for EVCS Equipment and Installation

2.1. All electric vehicle charging stations must comply with the relevant standards for equipment, installation, workmanship, and metering, as outlined in the "Code on EV charging stations installation, maintenance and operation" published by the PUCSL. In case of any discrepancies or missing information in these codes, the applicable Sri Lanka Standards (SLS) or International Electrotechnical Commission (IEC) standards shall be followed.

2.2. Standards and Regulations to be followed by CPOs.

2.2.1. All installations shall comply with **BS 7671** or **IEC 60364**.

2.2.2. In case of an EVCS with battery swapping capability, the installation shall comply with **IEC 62840** in addition to **BS 7671** or **IEC 60364**.

2.2.3. All installations shall require following the recommendations of the *IET Code of Practice for Electric Vehicle Charging Equipment Installation, 5th ed. London, U.K.: Institution of Engineering and Technology, 2023. ISBN: 978-1839538575* (as amended).

2.2.4. All EVCS installation shall be adhered to the Electricity (Safety, Quality and Continuity) Regulations No. of 2016 (as amended) and all other applicable standards and local regulations.

2.3. Location of EV charging stations and Layout of charging stations.

The location and layout of charging sites are crucial considerations for encouraging usage and enhancing the visibility of EV charging stations. The key factors to consider in this area are as follows.

2.3.1. The site shall be located in proximity to existing electrical infrastructure.

2.3.2. Consider whether the site can accommodate various vehicle sizes, including larger EVs, buses, or trucks if relevant for the area.

2.3.3. Clear signage shall be installed to guide drivers to the EV charging stations, especially in larger parking lots or complexes.

2.3.4. The site shall be assessed for environmental impact, particularly if located in natural areas. Design elements can be included to integrate the station aesthetically with its surroundings.

2.3.5. The site shall not be located in a flood-prone area.

2.3.6. The site shall be easily accessible from main or secondary roads.

2.3.7. Ensure reliable internet connectivity for the charging units to facilitate payment processing, remote monitoring, and data collection.

2.3.8. The charging station area shall be adequately illuminated to ensure that users and operators can clearly view the signage and operate the charger safely.

2.3.9. Access to charging equipment shall be available at all times.

2.3.10. The site should be accessible to emergency vehicles and clearly marked with emergency contact information.

2.3.11. The site shall provide a minimum of two dedicated charging bays. This could be a combination of two charging bays facilitating different types of vehicles (i.e. one charging bay for a four-wheeled vehicle and one charging bay for a two-wheeled vehicle).

2.3.12. The charging unit shall be positioned centrally between two bays.

2.3.13. Where possible, bays shall be widened to allow easy access to vehicle charging sockets.

2.3.14. Bays shall be designed, where possible, to meet national standards for disability access. For charge points on sidewalks or raised platforms, dropped curbs shall be included to allow wheelchair access.

2.3.15. Crash-resistant bollards shall be installed in front of ground-mounted charge points. If there is vehicular traffic behind the charge point, bollards shall also be placed there. Charge points shall be positioned so that cables do not cross over footpaths or create trip hazards.

2.3.16. Where possible, dedicated charging points and bays shall be provided for e-bikes and e-three-wheelers.

2.3.17. In exposed locations, consider installing a canopy over the charge point.

2.3.18. For all types of installations, it is recommended that charging equipment meets the minimum Ingress Protection (IP) rating as specified in section 2.4.

2.3.19. If necessary, ensure the location allows for potential expansion to accommodate additional charging units or bays as EV demand grows.

2.4. It is recommended to install Vehicle to Grid (V2G)-enabled EV chargers.

2.5. It is recommended to integrate renewable energy options like solar canopies to power the station, making the site more sustainable.

2.6. Type Test Certificate:

EVCS shall undergo type testing for compliance with the relevant IEC standards. For EVCS units designed for outdoor use, a test certificate confirming the ingress protection rating in accordance with **IEC 60529** shall be provided. An IP rating of IP54 or higher is recommended for indoor/outdoor installations. For EVCS units installed in indoor areas, the socket outlet and associated electrical equipment must be protected against dust and water ingress to at least an IP54 rating. If the EV charging facility is located outdoors, an ingress protection rating of IP65 or higher is required to protect both plugged and unplugged conditions. The use of a weatherproof enclosure for housing socket outlets and associated electrical equipment is acceptable and recommended for enhanced durability in exposed environments.

3. Code for EVCS operation

3.1. The CPO is responsible for ensuring that the operation of the EVCS complies with the distribution code of each Distribution Licensee (DL). The EVCS operation must not contribute to poor power quality conditions, such as harmonics, flicker, or undervoltage, in the electricity supply provided by the Distributor.

3.2. Operating instructions for the charging facility, including essential information such as rated voltage (V), frequency (Hz), current (A), and number of phases, shall be clearly displayed in a prominent location at each parking space with an EV charging facility.

3.3. All EVCS shall be operated through a Central Charge Point Management System (CCPMS) that meets the following criteria.

3.3.1. Compliance with the latest interoperability standards.

3.3.2. Offer two (or more) authentication methods (e.g., RFID, mobile app, OTP, QR code, Barcode, NFC, Biometric) to activate the charging points to start a charging session.

3.3.3. When an EVCS is located in a remote area with weak mobile network coverage, the CPO shall provide a local wireless network to enable consumers to use the mobile app to activate a charging session.

3.3.4. Authentication method to identify the customer and activate the charging points to start a charging session.

3.3.5. Allow users to receive alerts (e.g., session completion, fault detection) via mobile app or SMS.

3.3.6. Collection of data on key parameters for each charging session, including fault monitoring and automated maintenance alerts.

3.3.7. Generation of periodic reports on all charging transactions, as required by the regulator and utility service provider.

3.3.8. Provision of real-time availability data to consumers and stakeholders.

3.3.9. Ensure compliance with the Personal Data Protection Act, No. 9 of 2022 (as amended) and implement secure protocols for storing and transmitting user data, including payment and usage data.

3.3.10. Enable remote diagnostics, troubleshooting, and software updates to reduce downtime and ensure efficient maintenance.

3.3.11. Consider implementing dynamic load management features to distribute power efficiently across multiple charge points, particularly during peak demand, to prevent grid overload.

3.3.12. Where applicable, allow for integration with on-site renewable energy sources to reduce grid reliance and enhance sustainability.

3.3.13. Include a readily accessible emergency stop feature and clear safety instructions to ensure user safety during any emergency.

3.3.14. Provide users with access to their charging history through the app or portal, enabling them to track their energy usage and expenses.

3.3.15. Offer an Application Programming Interface (API) for third-party applications, such as navigation or fleet management software, to access real-time data, enhancing the system's flexibility and usability.

3.4. When multiple outlets are provided, it is recommended that the charging equipment be rated to allow all outlets to operate at full capacity simultaneously.

3.5. The CPO shall provide usage instructions for the EV charger, including an explanation of indicator statuses and their meanings. It is recommended to include a video guide accessible via mobile device or directly through the charger's User Interface (UI) to assist users with operation.

3.5.1. It is mandatory to display the following information on the UI during a charging session.

a) Current state of charge (SoC) of the EV (%)

b) Duration of the charging session (minutes or hours)

c) Amount of energy delivered (kWh)

d) Power consumption (kW)

e) Cost (LKR)

f) End condition of the charging session (time-based, cost-based, or energy-based, SoC-based, etc.)

3.6. The CPO shall ensure the availability of the charging station, managing both planned and unplanned shutdowns, as follows.

3.6.1. Shutdowns may occur due to a Breakdown in the charging system, an Unplanned Interruption to the electrical supply, a Planned Interruption (e.g. maintenance activity), or any Unexpected Malfunction of the electric vehicle (EV).

3.6.2. Consumer may contact the EVCS Contact Point (CP), as the case may be, to notify any breakdowns or obtain information on any interruption of service including the cause for such interruption at the CPs referred as in Schedule 1. Unplanned Interruptions may occur in the following instances.

a) Failure of DL's power supply.
b) Failure of equipment within the EVCS's Distribution System.
c) Issues such as overheating, fire, explosion, flooding, electric shock, physical damage to the charger, or problems with dust, damaged cables, and connectors (which may require manually switching off the charger using the emergency switch).
d) Tripping of main or sub switches.
e) Power interruptions caused by lightning strikes.
f) Intrusion of animals into supply facilities or damage caused by vermin.
g) Any other abnormalities occurring during the charging process.

3.6.3. Any planned interruptions shall be announced at least three (3) days in advance. These interruptions shall be pre-scheduled, and affected consumers shall be notified of the tentative interruption either through a written notice displayed in a common area on the premises or by individual electronic notices (e.g. mobile app notification or SMS). The notice shall also include the expected date of the charger's restoration.

3.6.4. In the event of an interruption caused by a breakdown in the DL's power supply, it is recommended to provide backup power using an emergency generator to ensure the completion of any ongoing charging sessions. The CPO may advertise the availability of the backup generator to the Consumer.

3.6.5. It is recommended that the charging equipment be capable of starting and ending a charging session independently, even in the absence of mobile network communication.

3.6.6. The availability/unavailability status of the EVCS, must be informed to the Consumer via the Mobile App and/or an SMS and/or an email.

3.7. The use of wheel stops is recommended to prevent vehicles from making contact with the charger or any other permanent structure. Additionally, the vehicle shall be positioned optimally to ensure sufficient cable length for charging.

3.8. The CPO shall provide a set of guidelines that consumers must follow, including fire safety procedures and an emergency shutdown and response plan. These guidelines shall be displayed in three languages (Sinhala, Tamil, and English) at the EVCS and also shall be available in the mobile app.

3.9. The necessary security measures, such as CCTV, motion detection sensors, and theft alarms, shall be implemented where required. An access control system shall also be adopted as needed, to provide critical information in the event of disputes or investigations.

3.10. Appropriate signage, or similar, shall be provided for the Consumer to understand the type of the charger (AC slow, AC fast, or DC fast) and the type of the connector (Type 1, Type 2, CHARdeMO, CCS1, CCS2, etc.) before plugging the EV to the charger.

3.11. It is recommended for the CPO to provide amenities such as seating, washrooms, food, and Wi-Fi to the consumers free of charge or at a reasonable cost.

4. Code for Customer Handling and Payment Handling

4.1. The CPO shall display the user registration and authentication procedures through electronic media and make them accessible at the EVCS. User registration, authentication, and account management shall be handled through an automated system. The primary authentication method shall be email-based or mobile number-based, and customers shall be able to access their historical data via the mobile app provided by the CPO.

4.1.1. Before providing the charging service, the CPO shall record the following details of the customer.

a) Name

b) Email address or phone number

c) License plate number of the vehicle

4.2. The CPO shall provide a minimum of two alternate payment options.

4.2.1. The CPO may choose from different payment options such as credit card, debit card, mobile wallet, bank transfer, Lankapay, Payhere, QR code-based payments, or cash.

4.2.2. Even though the cash option is available, the CPO shall promote cashless payment methods where possible.

4.2.3. The CPO shall obtain approvals/clearances from relevant financial authorities for payment handling, processing, and other finance-related activities.

4.3. If postpaid billing systems are implemented by the CPO, the billing cycle, late payment fees, and all the other parameters relevant to postpaid billing shall be approved by the Commission.

4.4. The CPO shall provide a list of services available for the Consumer when he/she contacts the CP or the Call Center.

4.5. Complaint handling is to be done as follows.

4.5.1. Any complaint can be made in writing (through email or the mobile app) or verbally (by calling the CP). All verbal complaints shall be recorded by the CP.

4.5.2. The CPO shall record the complaint in an appropriate medium and issue a reference number to the Consumer.

4.5.3. If the complaint is about an interruption of an ongoing charging session, the CP or the Authorized Person (AP) or the CPO shall respond immediately to rectify the interruption and/or end the ongoing session with less hassle to Consumer.

4.5.4. All written or verbal complaints shall be acknowledged within three (3) working days of lodging the complaint. The CPO shall publish the details of the CP and/or AP for complaints as per Schedule 1.

4.5.5. The CP and/or AP assigned by the CPO shall make every effort to address and resolve all complaints within fourteen (14) working days of receipt, or within a mutually agreed extended timeframe.

4.5.6. If a complaint is not attended to within the said timeframe, or if the Consumer is not satisfied with the solution/decision, the Consumer may refer the matter to the PUCSL. Details of the PUCSL are provided in Schedule 2 of this document. The CPO shall display the contact details of the PUCSL in a clearly visible location within the EVCS.

4.5.7. The procedure of complain handling shall be furnished in the EVCS and shall be displayed in three languages (Sinhala, Tamil, and English) at the EVCS and also shall be available in the mobile app.

5. Code for Metering and Billing

5.1. Energy meters used at charging stations to measure the electrical energy (kWh) sold to customers must be calibrated and certified every five years by the Department of Measurement Units, Standards and Services (MUSSD) or a laboratory accredited by Sri Lanka Accreditation Board (SLAB). The calibration certificate must be made readily available during periodic inspections by the Commission.

5.1.1. The energy meter must be verified annually, by a third party. The verification certificate must be prominently displayed within the EVCS and the calibration certificate shall be made readily available during periodic or sudden inspections by the Commission.

5.1.2. In the event of a dispute, the Commission may verify the meter's accuracy in accordance with the relevant guidelines issued by the MUSSD.

5.2. Consumers may request a test of the energy meter's accuracy at any time if they have concerns about the energy delivered to their EVs, subject to payment of the relevant meter testing fee approved by the PUCSL. Ideally, the meter shall operate within the specified accuracy limits. If the meter is found to be operating outside these limits, it will be replaced, the testing fee will be refunded, and any overcharged amounts (due to over-registering) will also be refunded to the consumer.

5.3. A receipt (electronic preferred) shall be issued for each charging session including the following details.

a) Receipt Number
b) Date
c) Start and end time of the charging session.
d) Customer ID/Account Number
e) Vehicle Registration Number (Optional but useful for fleet or corporate customers)
f) EVCS Name/ID

g) EVCS Location (Address or GPS coordinates)
h) CPO Name and Address
i) Energy Delivered (in kWh)
j) Tariff (LKR per kWh)
k) Tax Breakdown
l) Total Cost (LKR)
m) Power Rating (Optional) - Maximum power delivered during the session (e.g., 22 kW, 30 kW)
n) Payment Method (if applicable) - Credit card, Debit card, Mobile Wallet, RFID account
o) Carbon offset (if available)
p) Energy source
q) Customer Support - Phone number or email address for inquiries or complaints
r) Terms and Conditions

5.4. All charges or rates applied to consumers for EV charging shall be calculated in accordance with the approved Tariff Methodology of the PUCSL. A detailed breakdown of the calculation of these charges or rates shall be provided upon the consumer's request.

5.5. The charging session may be based on the duration of the charge, the number of units supplied, or the amount of money that the consumer is willing to pay.

5.6. EVCS tariff changes shall be implemented as necessary to align with any adjustments in utility tariffs.

5.7. The CPO shall display (physically or in the mobile app) or email details of the tariff charges and applicable service conditions at the EVCS. This information must be clearly communicated to customers prior to the start of a charging session.

5.8. In the event of misconduct of the CPO such as overbilling, inaccurate metering, or fraudulent metering, the CPO must compensate the customer for the losses incurred.

6. Code for Inspection and Maintenance of EVCS

6.1. All components of the electrical installation and associated equipment shall be maintained in a safe working condition and fit for their intended protective purposes, ensuring secure and reliable service delivery at all times.

6.2. Regular inspections of the charging facilities shall be conducted quarterly. Any required repairs or maintenance involving electrical work must be performed by a qualified and competent electrical contractor and worker.

6.3. Inspectors from the Commission shall conduct periodic or sudden inspections to ensure compliance with the recommended standards for the safe and efficient operation of EVCS.

6.4. When conducting an inspection, CPO shall furnish all relevant records and information required for the verification and provide access to the EVCS, make available all standardized testing instruments and offer necessary support for the inspection.

6.5. All components of the electrical installation shall be maintained to ensure the safety of both people and property.

6.6. Maintenance procedures shall be clearly defined and implemented. Safety protocols, including work permits and lockout-tagout (LOTO) systems, shall be enforced at the EVCS.

6.7. The electrical wiring shall be inspected and certified by a Chartered Electrical Engineer at least once every five (5) years. The inspection records must be submitted as part of the exemption certificate renewal process.

6.8. The CPO shall ensure the availability of an adequate number of staff to handle troubleshooting and maintenance tasks and to promptly respond to consumer queries during an ongoing charging session.

6.9. It is recommended to promote inclusivity and diversity among the staff.

6.10. Individuals performing maintenance work shall be properly trained and competent in the use of Personal Protective Equipment (PPE) as required.

7. Code for Safety, Health, and Environment.

7.1. The CPO shall follow the National Occupational Safety and Health Policy while conducting operations of the EVCS.

7.2. The CPO shall follow BS ISO 3864-1:2011 for safety signs displayed within the EVCS.

7.3. The CPO shall, to the extent possible, integrate renewable energy resources into the EVCS. To recover their investment, the CPO may charge a fair rate to consumers, in accordance with the Tariff Methodology approved by the Commission.

7.4. The CPO shall, to the extent possible, adopt the upcoming technologies to improve the efficient charging practices (e.g. smart charging, load management).

7.5. EVCS shall comply with all applicable environmental laws in Sri Lanka, except where exemptions or grace periods may be granted to the Exempted Person under such laws for compliance.

7.6. If the CPO is using a standby generator, the generator system shall be operated in accordance with the limitations set by the Central Environmental Authority (CEA). The operation of the generator shall not cause any disturbance to the neighboring establishments or the surrounding community.

7.7. EVCS shall be covered by public liability insurance to protect against potential damages caused by accidents that could reasonably occur during the normal operation of the charging station.

7.8. In the event of an emergency, alarms shall be activated, and the emergency evacuation routes marked at the EVCS shall be followed.

7.9. EVCS must be equipped with fire extinguishers suitable for use on electrical and battery fires. CPOs are required to maintain up-to-date certification from the relevant fire department or equipment supplier, confirming that the firefighting equipment is in proper working condition. Additionally,

7.9.1. The CPO shall provide an adequate number of fire extinguishers at the EVCS and display clear signage indicating the location of the nearest fire extinguisher.

7.9.2. If it is a manned EVCS, the staff must be adequately trained in the use of the firefighting equipment.

7.10. Each charge point shall be clearly labeled with its unique ID number, location details and contact details for emergency communication including the nearest hospital, fire brigade, and police station.

7.11. In addition to the general signage such as parking, no parking, and electric shock risk, the CPO must display the following symbol(s) to clearly signify the presence of the EVCS to the public.

Symbol EV 01

Symbol EV 02

Image credit: Manual on Uniform Traffic Control Devices for Streets and Highways by the Federal Highway Administration of USA

7.11.1. If the EVCS offers services for different types of EVs, the relevant signage must be displayed accordingly.

7.12. Directional signage, both inside and outside the car park, is recommended to guide EV drivers to the designated parking spaces with EV charging facilities.

7.13. The installation of an indicator light at the charging facility to signal when charging is in progress is recommended.

8. Code for Data, Data Dissemination and Reporting

8.1. All the activities related to data shall comply with the Personal Data Protection Act, No. 9 of 2022.

8.2. The EVCS must have the capability to store data of charge sessions for a minimum of two months, either in its built-in memory or in cloud storage.

8.3. Each EVCS shall publish its location details, available facilities such as charging options, connector types, and amenities such as seating, washrooms, food, and Wi-Fi—on a website and/or a mobile app. Operators managing multiple charging stations as part of a network may consolidate and provide information for all stations on a common website and/or a mobile app.

8.4. Real-time information on the availability of EVCS shall be made accessible to the public through a common website and/or a mobile app.

8.5. All EVCSs shall maintain daily records for each vehicle served, including the number of vehicles, kWh sales (with time interval data in the case of Time-of-Use electricity supply), and total revenue. This information shall be submitted to the PUCSL monthly, either through a web portal or via the LISS system as prescribed by the PUCSL.

Additionally, this data shall be shared with the relevant and authorized personnel as specified by the respective DL.

8.6. Whenever an accident or fire results in loss of life, injury to any person, or significant property damage within the EVCS premises, the CPO shall report the incident to the Commission by the quickest available means. The CPO/consumers may utilize an Incident Reporting System (IRS) to log and communicate such incidents to the Commission.

8.6.1. In the event of an incident or a consumer complaint, technical data such as voltage and current patterns of the charger shall be made accessible to the Commission.

8.7. All records related to the design, construction, operation, inspection, testing, and maintenance of the electrical installation shall be maintained, periodically updated, and made accessible to relevant and authorized personnel.

8.8. The CPO is required to submit an annual performance report to the Commission each year, and the report shall be published on their website and/or mobile app accordingly.

9. General code for E-bikes and E-tuk tuks

This section specifies the special requirements for CPOs maintaining EV charging centers to accommodate e-bikes and e-tuks. All conditions outlined in the previous chapters shall apply to this category, except where otherwise specified in this chapter.

9.1. An EVCS that facilitates E-bikes and E-tuk tuks shall provide a square-pin, 13 A, 230 V socket outlet conforming to **IEC 60083** Type G (BS 1363) and a round, five-pin industrial socket, rated at 16 A and 400 V, compliant with **IEC 60309**. Cabling shall be carried out in accordance with **BS 7671** or **IEC 60364** or Code on EV charging stations installation, maintenance and operation.

9.2. Operators must adhere to applicable standards, including **IEC 61851** to promote interoperability.

9.3. Charging equipment shall be designed to meet the voltage and power requirements of E-bikes and E-tuk tuks, typically within the range of 48V to 72V DC systems, ensuring safe and efficient charging.

9.4. The EVCS shall be designed to accommodate the unique parking and connector placement requirements of E-bikes and E-tuk tuks, ensuring ease of access even in constrained spaces.

9.5. The CPO shall establish clear procedures for safe charging and battery swapping, including measures to mitigate risks of fire or battery mishandling.

9.6. The EVCS must include appropriate protection from environmental conditions such as rain and heat to safeguard both vehicles and users during charging operations.

9.7. Prominent and easily understandable signage, along with step-by-step user guides, shall be installed at all EVCS to ensure safe usage by all operators, regardless of technical expertise.

9.8. If the EVCS is equipped with battery swapping facility, the EVCS shall comply with **IEC 62840**, ensuring safe and efficient battery swapping operations.

9.9. The CPOs shall implement procedures for routine maintenance and monitoring of swappable batteries to ensure their safety and longevity.

9.10. The CPO and relevant staff shall undergo regular training to assist users and handle charging or battery-swapping equipment safely and efficiently.

9.11. Charging infrastructure shall account for high-frequency, short-duration charging needs typical of E-tuk tuks used in public transport and delivery services.

9.12. The CPO shall provide a minimum of one charging bay for E-bikes and one charging bay for E-tuk tuk.

9.13. The CPO shall provide at least “bank transfer” and “cash” as the two alternate payment options as stated in clause 4.2.

10. General code for Heavy EVs

This section specifies the special requirements for CPOs maintaining EV charging centers to accommodate Heavy EVs. All conditions outlined in the previous chapters shall apply to this category, except where otherwise specified in this chapter.

10.1. Charging stations shall provide ultra-fast DC charging capabilities with power levels ranging from 350 kW to 1 MW or higher, compliant with standards such as the Megawatt Charging System (MCS) or CCS2 as depicted in **IEC 61851-23-3**.

10.2. The CPO shall collaborate with utility service providers to ensure adequate grid capacity and implement load management strategies.

10.3. Charging stations shall include designated bays with sufficient space, reinforced ground surfaces, and overhead or side-mounted charging infrastructure suitable for heavy-duty electric vehicles.

10.4. The CPO shall install appropriate cooling systems to manage heat dissipation during high-power charging, preventing thermal overload and fire risks.

10.5. Fire Safety Measures

10.5.1. A fire hydrant with a hose must be installed at all heavy EV charging stations to provide an immediate water source in case of fire.

10.5.2. Water-based fire suppression shall be positioned strategically to cool surrounding infrastructure and prevent fire spread.

10.5.3. Class D fire extinguishers (for metal fires) and dry chemical or foam suppression systems shall be available on-site.

10.5.4. Adequate spacing must be maintained between charging bays to reduce the risk of fire propagation.

10.6. Emergency shutdown procedures must be clearly outlined and accessible to station operators and users.

10.7. All charging infrastructures shall be designed to support the weight of heavy-duty electric vehicles, with reinforced foundations and durable surface materials.

10.8. Charging stations must comply with **IEC 61851-23** and **IEC 62196** high-voltage safety standards, including the provision of insulated gloves, automatic shutoff mechanisms, and personnel training programs.

10.9. Charging stations servicing electric buses or commercial fleets shall accommodate pantograph-based charging systems, compliant with **IEC 61851-1**, **IEC 61851-23**, and **IEC 62196**.

10.10. Parking bays shall be designed to accommodate articulated trucks and trailers, including turning radius allowances, proper alignment guidance, and robust cable management systems.

10.11. Parking bays shall be designed to accommodate articulated trucks and trailers, including turning radius allowances, proper alignment guidance, and robust cable management systems.

10.12. The CPO shall establish fire suppression measures, emergency shutdown procedures, and compliance with battery fire risk management protocols.

10.13. Charging stations shall adhere to local noise regulations and implement measures to minimize operational noise impact, especially in urban and residential areas.

11. Customer Obligations

11.1. Adherent to Safety Guidelines

11.1.1. Follow all safety instructions provided at the charging station.

11.1.2. Avoid tampering with charging equipment or infrastructure.

11.2. Proper Use of Equipment

11.2.1. Use the charging station only for its intended purpose and with compatible vehicles.

11.2.2. Ensure the charging connectors are handled carefully and returned to their proper place after use.

11.3. Respect Station Policies

11.3.1. Comply with time limits for charging, especially in high-demand areas.

11.3.2. Park only in designated EV charging bays and vacate promptly after charging.

11.4. Ensure payment for charging services is completed as per the specified rates and methods.

11.5. Personal Responsibility

11.5.1. Take responsibility for personal belongings while at the charging station.

11.5.2. Ensure the vehicle is secure during the charging session.

11.5.3. Ensure the vehicle is promptly unplugged from the charger and the charging bay is vacated immediately after the charging session ends, allowing other users to access the charger.

11.6. Environmental Considerations

11.6.1. Avoid littering or causing damage to the premises.

11.6.2. Report any spills or hazards immediately to CPO or EVCS management.

11.7. Ensure that the electric vehicle is covered by appropriate insurance in compliance with local laws and regulations, including a fire cover.

11.8. Emergency Procedures

11.8.1. Follow protocols in case of emergencies, such as equipment malfunctions or fire.

11.8.2. Report any technical issues or irregularities to the CPO promptly.

11.9. Maintain Orderliness

11.9.1. Avoid blocking access to other users or the charging equipment.

11.9.2. Show courtesy to other EV users by allowing equal access to facilities.

12. References

[1] Federal Highway Administration, Manual on Uniform Traffic Control Devices for streets and Highways, MUTCD. Available at: https://mutcd.fhwa.dot.gov/ (Accessed: 24 November 2024).

Schedule 1: Information on how to contact the Authorized Person

The Exempted Persons are required to display specific contact details as follows.

Authorized Person

<Insert Name, Address and contact details>

Call Points Enquiries and complaints	Telephone Number 1 – Telephone Number 2 – Email address –
Issues with the billing, meter accuracy, Disconnection, reconnection of electricity	Telephone Number 1 – Telephone Number 2 – Email address –
Emergency/ Breakdown (24-hour service)	Hotline -

Schedule 2: Public Utilities Commission of Sri Lanka

The Public Utilities Commission of Sri Lanka (PUCSL) has been established under Act, No. 35 of 2002. It has been empowered to regulate the economic, technical and safety aspects of the industry, under the provisions of the Act.

The PUCSL is tasked with resolving, by mediation, any dispute between a licensee and any other affected party. Please contact the PUCSL for further information.

Contact details of PUCSL
Public Utilities Commission of Sri Lanka
6th Floor, BOC Merchant Tower St. Michael's Road, Colombo 3,
Sri Lanka.
Telephone: (011)2392607/8
Fax: (011)2392641
E-mail: info@pucsl.gov.lk
Website: www.pucsl.gov.lk