Kingdom of Cambodia
Nation Religion King

Ministry of Mines and Energy
No. 0389

Prakas

on

Principles and Procedures for Managing and Regulating the Development and Provision of Energy Supply Services for Electric Vehicles

Minister of Mines and Energy

- Having seen the Constitution of the Kingdom of Cambodia
- Having seen Royal Decree No. NS/RKT/0823/1981 dated 22 August 2023 on Formation of the Royal Government of the Kingdom of Cambodia
- Having seen Royal Code NS/RKM/0618/012, dated 28 June 2018, on Promulgating the Law on Organization and Functioning of the Council of Ministers
- Having seen Royal Code No. NS / RKAM / 1213/017, dated 09 December 2013, on Promulgating the Law on the Establishment of the Ministry of Mines and Energy
- Having seen Royal Decree No. NS/RKM/0201/03 dated February 2, 2001, on Promulgating the Law on Electricity of the Kingdom of Cambodia
- Having seen Royal Decree No. NS/RKM/0515/005 dated May 18, 2015, on Promulgating the Law on Amendments to the Law on Electricity of the Kingdom of Cambodia
- Having seen Sub-Decree No. 137/ANK/BK, dated October 31, 2018, on the Organization and Functioning of the Ministry of Mines and Energy.
- Based on the necessity of the Ministry of Mines and Energy.

Decision

Chapter 1

General Provisions

Article 1.-

This Prakas aims to establish principles and procedures for managing and regulating the development and provision of energy supply services for electric vehicles with the following objectives:

1. To promote the development of sufficient, widespread, and rapid deployment of electric vehicle charging infrastructure and encourage the increased adoption of electric vehicles in the Kingdom of Cambodia, in alignment with the government's policies on electric vehicle sector development.
2. To regulate the provision of charging services at electric vehicle charging stations, ensuring safety, continuity, efficiency, and reasonable pricing.
3. To manage the safe, stable, and efficient energy reception process for charging electric vehicle batteries.

Article 2.-

This Prakas covers the following activities:

1. The development of electric vehicle charging infrastructure, including private residential charging, semi-public charging, public charging stations, and battery-swapping stations.
2. The provision of charging services or battery-swapping services.
3. The interaction between charging stations, customers, and the public through internet-based systems.
4. The reception of electric power by electric vehicles.

Article 3.-

The following definitions apply to key terms used in this Prakas:

- **Electric Vehicle (EV):** Refers to all types of vehicles powered by an electric motor and utilizing a battery to store energy for the electric motor.
- **Electric Vehicle Supply Equipment (EVSE):** Refers to equipment that includes power supply components, charging cables, plug connectors, communication systems (both hardware and software), and standardized communication protocols used to deliver electrical power to electric vehicles.
- **Electric Vehicle Charging Point:** Refers to a location equipped with electric vehicle supply equipment to charge an electric vehicle.
- **Electric Vehicle Charging Station:** Refers to a facility that includes one or multiple electric vehicles charging points, providing public charging services for electric vehicles. In the context of this Prakas, electric vehicle charging stations can be classified into three types:
    1. **Semi-Public Charging Stations**: These are charging stations installed at locations such as residential buildings, condominiums, workplaces, factories, schools, and universities, serving a specific group of authorized users.

2. **Public Charging Stations**: These are charging stations established at locations such as shopping malls, fuel stations, hospitals, and other public spaces, providing charging services to the general public.
3. **Standalone Charging Stations**: These are dedicated charging stations equipped with one or multiple charging points, offering charging services to the general public.

- **Battery Swapping Station** refers to a facility that provides battery-swapping services for electric vehicles by replacing depleted batteries with fully charged ones. This station consists of two key areas:
  1. **Battery Charging Area**: A designated space where used batteries are recharged before being made available for swapping.
  2. **Battery Exchange Area**: A designated space where electric vehicles receive fully charged batteries as replacements for their depleted ones.
- **Home EV Charging Station** refers to a charging point installed at a residential or private location for charging electric vehicles. It is designed for personal use and is not intended for commercial purposes.
- **Communication Application** refers to a software platform developed to facilitate interaction between charging stations, electric vehicles, customers, and the public through internet-based systems, mobile networks, or other computer networks. This application enhances accessibility, monitoring, and management of charging services.
- **Charging Cables** refer to the conductive cables that connect the electric vehicle supply equipment (EVSE) to an electric vehicle. These cables facilitate the transfer of electricity to charge the vehicle's battery, supporting both alternating current (AC) charging and direct current (DC) charging.
- **Electric Vehicle Connector** is the electrical plug attached to the end of a charging cable, which connects to an electric vehicle's inlet. It enables the transfer of electricity from the charging equipment to the vehicle's battery.
- **Electric Vehicle Inlet** is the electrical socket on an electric vehicle that allows the electric vehicle connector from the charging equipment to be plugged in. This inlet facilitates the reception of electricity from the charging station to the vehicle's battery.

Chapter 2

Framework, Roles, Duties, and Responsibilities of the Ministry and Institutions

Article 4.-

The charging of electric vehicles or the charging of batteries is a form of electricity supply, which falls within the framework of the electricity sector.

The electrical energy supplied at charging stations or battery swapping stations is considered an electricity commodity, which the station provides and sells to electric vehicle or battery owners.

As outlined in the second paragraph above, the charging service constitutes an electricity supply service, where the charging station acts as an electricity supplier, and the electric vehicle owner is the electricity buyer or consumer.

In accordance with the Electricity Law of the Kingdom of Cambodia, the framework and responsibilities related to electric vehicle charging are divided as follows:

1. The formulation and management of policies, strategies, and government plans related to the development of electric vehicle charging and battery swapping services, which are classified as a form of electricity supply, fall under the general responsibility of the Ministry of Mines and Energy, the institution responsible for the energy sector on behalf of the Royal Government.
2. Ensuring the supply of electricity from the national grid for charging services, including private residential charging, semi-public and public charging stations, and battery swapping stations, in a manner that is adequate, efficient, and reasonably priced, falls under the responsibility of Electricity of Cambodia (EDC) and licensed private electricity distributors, who serve as electricity suppliers.
3. Ensuring that the provision of charging services at charging stations or battery swapping stations, which constitute a type of electricity service, operates safely, efficiently, with quality, sustainability, and transparency, falls under the responsibility of the Electricity Authority of Cambodia (EAC) as the regulatory body.

Article 5.-

Roles, Duties, and Responsibilities of the Ministry of Mines and Energy:

1. Developing and promoting plans for the expansion of electric vehicle charging infrastructure, including private residential charging, semi-public and public charging stations, and battery swapping stations.
2. Issuing permits for the development, construction, and installation of electric vehicle charging stations and battery swapping stations.
3. Establishing technical and safety standards for equipment, infrastructure, installation, and operation related to electric vehicle charging and battery swapping.

4. Defining policies and strategic plans for electricity pricing for electric vehicle charging services.
5. Setting procedures for permit applications and the issuance of licenses for the development, construction, and installation of electric vehicle charging stations and battery swapping stations.
6. Organizing training programs and developing technical expertise in the field of electric vehicle charging infrastructure within the energy sector.
7. Developing communication systems and mobile applications to manage electric vehicle charging and battery swapping, facilitate user interactions, provide customer services, and integrate with the national grid for energy management.
8. Monitoring, inspecting, and evaluating the planning, development, construction, installation, and operation of electric vehicle charging stations and battery swapping stations throughout their construction and operational phases.

Article 6.-

Roles and Responsibilities of the Electricity Authority of Cambodia (EAC):

1. Participate in promoting the development of electric vehicle charging infrastructure, including private residential charging, semi-public and public charging stations, and battery swapping stations, in accordance with the promotion plan established by the Ministry of Mines and Energy.
2. Issue, amend, suspend, revoke, or reject licenses for electric vehicle charging services and battery swapping services, which are considered a form of electricity supply, in compliance with the Electricity Law of Cambodia and other relevant regulations.
3. Review and issue licenses for mobile applications that facilitate interactions between charging stations, battery swapping stations, and electric vehicle users.
4. Approve electricity tariffs (charging fees) and service conditions for electric vehicle charging and battery swapping, including charging station operators' electricity tariffs and mobile application usage fees.
5. Establish procedures for license applications, including document templates, verification, registration, and license issuance for charging service providers, battery swapping stations, and mobile application services.
6. Collaborate with the Ministry of Mines and Energy to define technical and safety standards for equipment, infrastructure, installation, and operations related to electric vehicle charging and battery swapping.

7. Evaluate and mediate complaints and disputes between electricity consumers and license holders of charging or battery swapping services in cases of contractual violations.
8. Enforce compliance among service providers and users regarding energy security, economic policies, environmental policies, and other national regulations, as well as issuing necessary regulations, directives, temporary suspensions, or permanent orders concerning electricity services.
9. Compile and manage data and information on licensed charging service providers and battery swapping service providers, including service-related data, and provide detailed reports to the Ministry of Mines and Energy and Electricity of Cambodia (EDC).

Article 7.-

Roles and Responsibilities of Electricity of Cambodia (EDC):

1. Participate in promoting the development of electric vehicle charging infrastructure, including private residential charging, semi-public and public charging stations, and battery swapping stations, in alignment with the promotion plan established by the Ministry of Mines and Energy.
2. Assess investment potential for developing and constructing charging stations within its electricity supply zones to support the growth of electric vehicle usage.
3. Inspect and supply electricity to all types of electric vehicle charging points, including private, semi-public, and public charging stations as well as battery swapping stations. If necessary, assess the feasibility of investing in medium-voltage and transformer infrastructure to support electricity supply to these locations.
4. Review and provide recommendations on projects related to communication systems for electric vehicle charging services, including mobile applications, to facilitate the development of a Central Management System (CMS) for integration with the national grid.
5. Participate in defining technical and safety standards for electric vehicle charging equipment, infrastructure, installation, and operation.
6. Monitor, inspect, and evaluate the installation and operation of charging stations and battery swapping stations, both during construction and operational phases.
7. Assess the capacity of the electricity distribution network in areas where charging stations or battery swapping stations are connected, followed by a broader assessment of the national grid's supply capacity to ensure continued grid stability.

8. Analyze potential impacts arising from the development of charging and battery swapping stations, evaluate their effects on the distribution network, and model installation scenarios for these stations.
9. Collaborate with the Ministry of Mines and Energy to establish a centralized management system, develop a communication system for EV charging, and implement a mobile application for managing EV charging stations.

Article 8.-

Duties of Licensed Private Electricity Distributors:

1. Participate in promoting the development of electric vehicle charging infrastructure, including private residential charging, semi-public and public charging stations, and battery swapping stations, in accordance with the promotion plan established by the Ministry of Mines and Energy.
2. Assess investment feasibility for establishing charging stations within their electricity supply areas to support the growth of electric vehicle adoption.
3. Facilitate and provide guidance to electricity users within their supply areas who wish to apply for permits to install and operate electric vehicle charging stations.
4. Evaluate the feasibility of supplying electricity to private, semi-public, and public charging stations, as well as battery swapping stations. If necessary, assess investment in medium-voltage and transformer infrastructure to ensure adequate electricity supply to these locations.
5. Provide relevant data and information to Electricity of Cambodia (EDC) to facilitate impact analysis on the electricity distribution network, as well as modeling for proposed charging and battery swapping stations.
6. Collaborate with the Ministry of Mines and Energy as witnesses during testing and commissioning phases of newly established charging and battery swapping stations.

Chapter 3

Development of Electric Vehicle Charging Infrastructure

Article 9.-

The Ministry of Mines and Energy, the Electricity Authority of Cambodia (EAC), Electricity of Cambodia (EDC), and licensed private electricity distributors shall collaborate to promote the development of charging stations, battery swapping stations, and residential charging in accordance with the promotion plan set by the Ministry of Mines and Energy. This initiative aims to enhance accessibility for electric vehicle users by ensuring convenient charging options at all locations. The expansion of electric vehicle adoption will contribute to sustainable and efficient energy use for

transportation and mobility in Cambodia, strengthening the national economy by fostering growth, competitiveness, and sustainable development.

Article 10.-

Electric vehicle users who have a designated parking space within their residence can arrange for the installation of a power charging device at that parking location for charging their electric vehicle. The following conditions must be met:

1. Use a power charging device that complies with technical and safety regulations, as well as standardized communication system protocols.
2. Request an inspection of the connection capacity to verify the feasibility of the power supply capacity required for the charging device.
3. In cases where the total required capacity exceeds the existing connection capacity, the homeowner must request an increase in connection capacity from their electricity supplier to ensure sufficient power supply for this requirement.

Electric vehicle users who fulfill the above conditions are not required to apply for a service operation permit or license.

Article 11.-

Owners of public and semi-public parking areas must assess the feasibility of investing in and developing charging stations at these locations to promote the expansion of charging station infrastructure.

The Ministry of Mines and Energy, Electricity of Cambodia (EDC), and private electricity distribution license holders must encourage the above-mentioned parking owners to develop charging stations. If necessary, both EDC and private electricity distribution license holders may collaborate with parking area owners to establish charging stations at these locations to facilitate the growth of charging infrastructure.

EDC and private electricity distribution license holders must evaluate investment opportunities for developing charging stations or battery swapping stations at feasible public parking locations to support the expansion of charging and battery swapping infrastructure.

Article 12.-

The development and construction of charging stations and battery swapping stations for electric vehicles require a development permit from the Ministry of Mines and Energy. Individuals or entities that obtain such a permit must request an inspection and approval for electricity supply from Electricity of Cambodia (EDC) or from private electricity distribution license holders who serve as electricity providers.

Article 13.-

Applications for the development and construction of small-scale charging stations with no more than three charging devices may be submitted as an individual entity. However, if the charging station includes more than three charging devices, the application must be submitted as a legal entity.

Applications for the development and construction of battery swapping stations for electric vehicles must be submitted as a legal entity.

Both individual and legal entities must submit an application for a development permit to the Ministry of Mines and Energy. The application must be accompanied by the following supporting documents:

- A certified copy of the business registration certificate and tax patent for legal entities.
- A certified copy of the Cambodian national identification card for individual applicants.
- Information on electricity demand, development plans, and the location of the proposed charging station or battery swapping station for electric vehicles.
- Project design documents, installation plans, and an operational plan for the proposed charging station or battery swapping station, including specifications on technical standards, safety measures, and environmental compliance requirements.

The application template for the development permit and construction of charging stations or battery swapping stations for electric vehicles is provided in **Annex 1** of this Prakas.

Article 14.-

Individuals or legal entities applying for a development permit and construction of charging stations or battery swapping stations for electric vehicles must pay public service fees in accordance with the joint Prakas issued by the Ministry of Mines and Energy and the Ministry of Economy and Finance.

Article 15.-

Applications for a development permit and construction of charging stations or battery swapping stations for electric vehicles must be submitted at the One-Window Service Office of the Ministry of Mines and Energy during official working days and hours.

Officials responsible for receiving applications at the One-Window Service Office must review and verify the completeness and accuracy of each application, including all required supporting documents.

If the submitted documents are found to be complete, an official receipt must be issued to the applicant in the format specified by the Ministry of Mines and Energy.

Article 16.-

Before commencing operations, individuals or legal entities that have obtained a development permit and constructed charging stations or battery swapping stations for electric vehicles must fulfill the following conditions:

- Ensure a reliable electricity supply for operations, either through connection to the power grid of an authorized electricity supplier or through a standalone electricity source.
- Complete construction and installation in full compliance with established technical standards, safety regulations, and environmental requirements.
- Undergo an inspection and obtain certification from an independent expert registered and recognized by the Ministry of Mines and Energy, confirming that the charging station or battery swapping station is safe for operation.

Chapter 4

Electricity Supply for Charging Locations

Article 17.-

Individuals or legal entities intending to construct and install charging stations or battery swapping stations for electric vehicles must first request an inspection and obtain approval for electricity supply from their respective electricity provider. In cases where the request requires expansion or enhancement of the electricity grid capacity or installation of transformers, Electricity of Cambodia (EDC) or the private electricity distribution license holders responsible for supplying electricity in that area is obligated to plan and carry out the necessary grid expansion, capacity enhancement, or transformer installation, based on their electricity distribution infrastructure investment plan.

After receiving a request for electricity supply, EDC or the private electricity distribution license holder must assess and evaluate the feasibility of providing electricity to the requested location. The applicant must be notified of the assessment results within a maximum of ten working days from the date of submission.

Article 18.-

The establishment of charging stations or battery swapping stations for electric vehicles that intend to meet part or all of their electricity supply requirements through investment in solar power systems or integrated hybrid systems combining solar, wind, and battery storage must undergo a technical feasibility study.

This study must assess:

- The electricity generation potential of the proposed renewable energy system.
- The energy storage capacity required for the charging station.
- The cost of electricity generated from the system.
- A comparative analysis of the advantages and disadvantages of using self-generated electricity versus relying entirely on the national grid supply.

The results of this study must be submitted for discussion with the Ministry of Mines and Energy, which will make the final decision on the feasibility and approval of the proposed system.

Article 19.-

To promote the rapid development of charging stations or battery swapping stations for electric vehicles, the Ministry of Mines and Energy, the Electricity Authority of Cambodia, and Electricity of Cambodia must discuss and establish a pricing framework for electricity supply from the national grid to charging stations or battery swapping stations in an appropriate and reasonable manner.

Article 20.-

When a significant number of electric vehicles charging infrastructures are in place, Electricity of Cambodia (EDC) must study and implement measures to address the following challenges:

- Develop planning and management strategies for electricity load distribution to prevent strain on the national grid supply and ensure stable electricity distribution.
- Integrate smart grid systems and smart electric vehicle charging infrastructure into the national grid to balance electricity supply and demand when necessary.

Chapter 5

Provision of Electric Vehicle Charging Services

Article 21.-

Charging services at charging stations and battery swapping stations for electric vehicles are classified as electricity supply services. In accordance with the Electricity Law of the Kingdom of Cambodia, the provision of electricity supply services requires a service license issued by the Electricity Authority of Cambodia (EAC).

Article 22.-

The issuance of a service license for electric vehicle charging as mentioned in Article 21 must be based on a development permit for the establishment of a charging station or battery swapping station, which must be obtained from the Ministry of Mines and Energy.

The Electricity Authority of Cambodia (EAC) must ensure that license holders for charging services comply with technical, safety, and environmental standards as required by regulations.

Article 23.-

During the operation phase of a charging station or battery swapping station for electric vehicles, license holders must comply with the following requirements:

- Adhere to established technical, safety, and environmental standards.
- Ensure that managers and technical staff are qualified professionals registered with the Ministry of Mines and Energy.
- Utilize technical services from experts registered with the Ministry of Mines and Energy.
- Submit reports and data on electric vehicle charging services to the Electricity Authority of Cambodia (EAC) and the Ministry of Mines and Energy every six (6) months.
- Allow inspections, assessments, and verification of the safety conditions of charging infrastructure by officials from the Electricity Authority of Cambodia, electricity suppliers, and the Ministry of Mines and Energy, as necessary.

Article 24.-

No individual is permitted to provide electric vehicle charging services or battery swapping services for electric vehicles without a license issued by the Electricity Authority of Cambodia (EAC).

License holders must strictly comply with all conditions specified in the license, as well as relevant regulations, directives, laws, and legal standards.

Article 25.-

The Electricity Authority of Cambodia (EAC) must establish the conditions and procedures for the issuance, modification, suspension, revocation, or rejection of service licenses related to electric vehicle charging and battery swapping services, in accordance with the Electricity Law of the Kingdom of Cambodia.

Article 26.-

The Electricity Authority of Cambodia (EAC) must establish charging rates and battery swapping fees for electric vehicle charging service providers and battery swapping service providers, as well as fees for communication services that support electric vehicle users. The determination of charging fees and service conditions must align with the policies and strategic plans set by the Ministry of Mines and Energy.

License holders must ensure and certify that the metering and measurement systems for recording the amount of energy supplied to electric vehicles comply with applicable standards and are verified by

accredited laboratory testing equipment recognized by the Ministry of Mines and Energy and the Electricity Authority of Cambodia.

Article 27.-

Installers, technical service personnel, maintenance workers, and repair technicians involved in electric vehicle charging and battery swapping equipment must be qualified professionals. They must hold certificates of specialized training issued by a training institution designated by the Ministry of Mines and Energy.

Article 28.-

The implementation, dispute resolution, and enforcement of penalties by the Electricity Authority of Cambodia (EAC) related to electric vehicle charging and battery swapping services must comply with the Electricity Law of the Kingdom of Cambodia.

Chapter 6

Technical, Safety, and Environmental Standards

Article 29.-

The development, construction, installation, and operation of charging stations and battery swapping stations for electric vehicles, as well as the provision of communication services, must comply with technical, safety, and environmental principles established by standardized regulations. This ensures that all electric vehicles can access charging services from any compatible charging device and that charging stations can communicate with one another and with the central management system.

In cases where a specific standard has not yet been approved for implementation in the Kingdom of Cambodia, the Ministry of Mines and Energy may temporarily adopt an international standard for use.

Article 30.-

The key technical principles related to electric vehicle charging must comply with the following requirements:

1. **Alternating Current (AC) Charging:**
    - **Charging Mode**: Must follow Mode 3, Part 1 – General Requirements of Cambodian Standard (CS) IEC 61851-1, concerning electric vehicle charging systems.
    - **Connector Type**: Must use Type 2 connectors, plugs, and sockets, as specified in Part 2 – Requirements for the dimensions of pin and tube-type connectors for AC charging in Cambodian Standard (CS) IEC 62196-2, which covers plugs, sockets, vehicle connectors, and inlets for electric vehicle charging.

- **Charging Power Levels**: Generally, 7.4 kW (single-phase) and up to 22 kW (three-phase).

2. **Direct Current (DC) Charging:**
    - **Charging Mode**: Must follow Mode 4, Part 1 – General Requirements of Cambodian Standard (CS) IEC 61851-1 for electric vehicle charging systems, and Part 23 – DC charging station requirements in Cambodian Standard (CS) IEC 61851-23.
    - **Connector Type**: Must use CCS2 (Combined Charging System Type 2) connectors, plugs, and sockets, as specified in Part 3 – Requirements for DC and AC/DC combination connectors for electric vehicles in Cambodian Standard (CS) IEC 62196-3.
    - **Charging Power Levels**: DC charging equipment must support power levels of 50 kW, 100 kW, or higher, with ultra-fast charging reaching up to 350 kW.
    - **Charging Cables**: Must comply with Part 1 – General Requirements of Cambodian Standard (CS) IEC 62893-1, covering electric vehicle charging cables with voltage ratings up to 0.6/1 kV.

Article 31.-

Key Safety and Environmental Principles Related to Electric Vehicle Charging and Battery Swapping Must Comply with the Following Requirements:

1. **General Safety Principles**
    - Electrical installations must comply with Cambodian Standard (CS) IEC 60364, which covers low-voltage electrical installations, ensuring electrical safety for EV charging stations. Proper grounding, circuit protection, and correct installation of devices, equipment, cables, and plugs are required.
    - Safety requirements must adhere to Part 7-722 – Special Requirements for Electric Vehicle Supply Installations under CS IEC 60364-7-722, ensuring protection against electric shocks and overcurrent.
    - Overcurrent protection must include the installation of disconnectors and Residual Current Devices (RCDs) to prevent electrical hazards.
2. **Installation and Infrastructure Requirements**
    - Each charging station must be properly grounded and equipped with adequate protective devices to prevent electrical hazards.

- All conductive cables must be installed safely, with protection against physical damage and environmental factors.
- All charging stations and charging points must have adequate ventilation and cooling systems to prevent excessive heat buildup.

3. **User Safety and Operational Guidelines**
   - All charging stations must be equipped with an emergency stop button for immediate shutdown in case of emergencies.
   - Clear instructions and guidance must be provided to EV users regarding communication systems and mobile applications to prevent misuse or operational errors.
4. **Environmental Standards**
   - Weather resistance: Charging stations must be designed to withstand Cambodia's tropical climate, including high humidity, heavy rainfall, and extreme temperatures.
   - Durability: Charging equipment, cables, power connectors, and plugs must be robust and resistant to frequent usage.
   - Fire safety: Compliance with fire prevention and suppression regulations is required, including the proper installation of ventilation systems.

Article 32.-

The principles of communication related to electric vehicle charging must comply with the following requirements:

1. **Communication Protocol Standards**
   - **Mobile Application Protocols:** The communication system of charging equipment and electric vehicles used in the Kingdom of Cambodia must support Open Charge Point Protocol (OCPP) versions 1.6-J, 2.0.1, or newer versions. This ensures that all EV users in Cambodia can communicate and control charging operations with any charging equipment and station safely and reliably.
   - **Basic Charging Communication:** Must comply with Cambodian Standard (CS) IEC 61851-1, which defines fundamental communication requirements between electric vehicles and charging stations.
   - **Advanced Communication Systems:** Must comply with Cambodian Standard (CS) ISO 15118, covering bidirectional energy transfer communication between EVs and the electric grid. This enables advanced functions such as Plug-and-Charge (PnC) and Vehicle-to-Grid (V2G) integration.

- **Payment and Authentication:** Charging stations must integrate standardized payment systems and authentication protocols to ensure smooth and secure user transactions.

2. **Internet Security and Data Protection**

- **Internet Security:** Each charging station must implement best cybersecurity practices to prevent unauthorized access and ensure secure communication between EVs, charging devices, and the national grid.
- **Data Protection:** User data collected during the charging process must be strictly safeguarded to ensure privacy and confidentiality.

Chapter 7

Development of Communication Systems and Mobile Applications

Article 33.-

All charging equipment and electric vehicles imported or manufactured for use in the Kingdom of Cambodia must be equipped with both hardware and software communication systems that enable the Ministry of Mines and Energy to develop a national unified communication platform. This platform will allow charging equipment, charging stations, electric vehicles, customers, and the general public to interact, exchange information, and perform automated remote control via the internet or mobile networks. To ensure that the national unified communication platform is compatible with all charging stations and electric vehicles nationwide, the communication systems of charging stations and EVs must comply with the protocol standards specified in Article 32. For existing charging stations established before the enactment of this Prakas, where the communication protocols of certain stations differ from the standardized protocols, these stations must upgrade their communication systems to ensure compatibility with the national unified communication platform developed by the Ministry of Mines and Energy. If additional time is required for system upgrades, temporary roaming capabilities must be provided to ensure seamless service for electric vehicle users using interim protocol standards.

Article 34 -

The development of a mobile application for online services related to electric vehicle charging must be designed to allow Electricity of Cambodia (EDC) to establish a centralized management system as part of the national grid infrastructure. This system will enable real-time monitoring of electricity consumption from the national power supply network and facilitate smart energy management to balance the national grid load and mitigate power fluctuations from renewable energy sources.

Article 35.-

The development of mobile applications for electric vehicle charging and battery swapping services, which provide communication services for EV users, requires a development permit from the Ministry of Mines and Energy.

To ensure seamless integration of EDC's national grid management system with the mobile application, the Ministry of Mines and Energy, the Electricity Authority of Cambodia (EAC), and Electricity of Cambodia (EDC) must collaborate with companies currently providing communication services for EDC's national grid. They must assess the technical feasibility of developing the mobile application, ensuring that it is fully compatible with the existing national grid communication system.

Article 36.-

The provision of mobile application services for electric vehicle charging and battery swapping to EV users requires a service license issued by the Electricity Authority of Cambodia (EAC).

To ensure the sustainability of business operations for mobile applications related to EV charging and battery swapping services, the Electricity Authority of Cambodia (EAC) must establish a usage fee for customers per charging session.

The Electricity Authority of Cambodia (EAC) may also allow mobile application service providers for EV charging and battery swapping to generate additional revenue through:

- Advertising fees,
- Fees from additional services that benefit application users, and
- Service fees from Electricity of Cambodia (EDC) under the "Vehicle-to-Grid (V2G)" program, to help reduce charging costs for users.

Article 37.-

The key functions of the mobile application for electric vehicle charging services must include the following:

1. **Charging Station Locator**
    - Allows EV users to view charging station locations on a map and find the nearest available charging stations.
    - Enables users to select their preferred charging station type, including AC or DC charging, slow or fast charging options.
2. **Parking and Charging Connector Reservation**
    - Allows EV users to reserve parking spaces and charging connectors in advance at charging stations or battery swapping stations to avoid waiting times.
    - Provides notifications and reminders about upcoming reservations.
3. **Remote Charging Control**
    - Allows EV users to start or stop charging their vehicle remotely via a mobile app.

- Enables real-time monitoring of the charging status and estimated time remaining for a full charge.

4. **Billing and Payment Features**
   - Allows EV users to receive invoices and make payments through multiple methods, including credit/debit cards and online payment systems.
   - Provides payment history tracking for users to review past transactions.
5. **Navigation and Route Planning**
   - Provides navigation assistance to guide EV users to their destination while displaying charging station locations along the route.
   - Allows users to track the distance to the next available charging station and estimate travel time.
6. **Private Home Charging Management**
   - Enables EV users to register their private home charging devices in the app for smart automated energy management based on electricity pricing and available grid capacity.
7. **Participation in the "Vehicle-to-Grid (V2G) Program"**
   - Allows EV users to register and participate in the national grid's V2G program, helping to support grid stability while earning benefits from the national grid system.

Chapter 8

Final Provisions

Article 38.-

Any provisions that contradict this Prakas shall be considered null and void.

Article 39.-

The Director General of the General Department of Administration, the Director General of the General Department of Energy, Inspectors General, Department Heads under the Ministry of Mines and Energy, the Director General of Electricity of Cambodia, the Chairman of the Electricity Authority of Cambodia, and the Heads of Provincial and Municipal Departments of Mines and Energy shall be responsible for implementing this Prakas within their respective duties, effective from the date of signing.

Phnom Penh, February 20, 2025
Minister
(Signature and Seal)

Recipients:

- Office of the Council of Ministers
- Ministry of Economy and Finance
- Cabinet of Samdech Moha Bovorthipadi Prime Minister
- Cabinet of His Excellency Deputy Prime Minister
- Municipal and Provincial Administrations
- As stated in Article 39
- Royal Affairs
- Archives

Annex 1 of Prakas No 0389 Dated: February 20, 2025

on

Template for Application for a Development and Construction Permit for Establishing an Electric Vehicle Charging Station

Kingdom of Cambodia

Nation Religion King

Company :.....

No :.....

To

His Excellency Minister of Mines and Energy

Subject: Request for a Development and Construction Permit for Establishing an Electric Vehicle Charging Station or Battery Swapping Station

With reference to the above subject, I have the honor to respectfully inform **His Excellency the Minister** that (Company name)..... intends to develop and construct an electric vehicle charging station or battery swapping station in compliance with **No 0389 Dated: February 20, 2025**, issued by the Ministry of Mines and Energy. (Company name)..... respectfully submits this application for a permit from the Ministry of Mines and Energy to develop and construct an electric vehicle charging station or battery swapping station at the following location, Village: ....., Commune/Sangkat: ..... District/City: ....., Province/Municipality: .....

Enclosed with this application is one (1) copy of the required supporting documents for the permit request.

Based on the above, I respectfully request His Excellency the Minister to kindly review and approve the issuance of a permit for (Company name) ..... to develop and construct an electric vehicle charging station or battery swapping station.

Please accept my highest respect and regards.

Phnom Penh, Date.....Month .....Year.....

Company Director

(Signature and Official Seal)

Information Certificate for Application for a Permit to Develop and Construct a Charging Station or Battery Swapping Station for Electric Vehicles

Section 1:

1) General Status (Please attach the company profile)

- ☐ Semi-Public Charging Station
- ☐ Public Charging Station
- ☐ Private Charging Station
- ☐ Battery Swapping Station

2) Applicant's Detailed Information

A) Individual Applicant

- Applicant's Name: ..... (In Latin script) .....Gender:.....
  .....Date of Birth: .....
- ID Card/Passport Number: ..... Issued on: ..... Month ..... Year 202.....
- Applicant's Address: .....
  .....
- Contact Phone Number: .....Email: .....

B) Legal Entity

- Position and Role of the Applicant in the Company:
  - ☐ Company Name
  - ☐ Legal Representative of the Company
    (Please attach a letter of authorization as a legal representative)
- Company Name: .....
- Business Registration Number: .....
- Permanent Office Address: .....
- Representative Name: .....
- ID Card/Passport Number: ..... Issued on: ..... Month ..... Year 202.....
- Contact Phone Number: .....
- Email: .....

3) Information on the Station Location

The company has developed/plans to develop and construct a Charging Station or Battery Swapping Station for electric vehicles, located, Village: .....Commune/Sangkat: .....District/City: .....Capital/Province: .....

4) Development Plan of the Applicant

A) Existing and New Stations

The company intends to construct and install a Charging Station or Battery Swapping Station for electric vehicles by purchasing electricity from ..... and ensuring compliance with the technical, safety, and environmental standards set by the Ministry of Mines and Energy to provide electric vehicle charging services at the following station(s):

1. Charging Station: .....Equipped with ..... charging devices, including:
   - Type: AC/DC, Power Capacity: ..... kW, Number of Charging Plugs: ....., Plug Type: .....
   - Type: AC/DC, Power Capacity: ..... kW, Number of Charging Plugs: ....., Plug Type: .....
   - Type: AC/DC, Power Capacity: ..... kW, Number of Charging Plugs: ....., Plug Type: .....

B) Development Plan

The company will develop the existing electric vehicle (EV) charging infrastructure and expand additional charging stations to ensure that the charging services provided by Charging Stations or Battery Swapping Stations are conducted safely, efficiently, with high quality, sustainability, and transparency in response to the growing demand.

5) Electricity Procurement for the Charging Station

According to the power purchase agreement between the company and Electricity of Cambodia (EDC) or the licensed electricity supplier, the station will operate under low/medium voltage with a total power capacity of ..... kVA and a current rating of ..... A, 3-phase.

6) Applicant's Financial Capacity

Total Investment Capital: ..... (Amount in words) US Dollars, which is fully financed by the company. (Please attach supporting documents verifying the company's bank account balance for the past three months.)

7) Electric Power Supply System for Users

The company will supply electricity to electric vehicle users through fast DC charging equipment, ensuring compliance with the technical, safety, and environmental standards mandated for implementation within the Kingdom of Cambodia.

Section 2: Required Supporting Documents:

1. Certified Copy of Business Registration Certificate ....(1 copy)
2. Certified Copy of Patent Tax Certificate ....(1 copy)
3. Company Articles of Association ....(1 copy)
4. Power Purchase Agreement with the Licensed Supplier ....(1 copy)
5. Certified Copy of Applicant's ID Card.....(1 copy)
6. Location Map of the Charging Station ....(1 copy)

7. Documents Certifying Ownership or Control Rights of the Location (e.g., land title, lease agreement, or authorization for site use) ……..……(1 copy)
8. Construction Layout Plan of the Charging Station ……..……(1 copy)
9. Electrical Supply System Layout and Charging Equipment Plan ……..……(1 copy)
10. Technical Specification Documents of Charging Equipment …….. ……(1 copy)
11. Certificate of Compliance with National or International Standards (e.g., CCS2) ….…(1 copy)

I hereby declare that all the information provided in this application and the attached documents are accurate and truthful.

Phnom Penh, Date.....Month .....Year.....

Signature and Name of Applicant