Cabinet Resolution No. (175) of 2025
Regarding the Technical Regulation for Requirements of Electric Vehicle Supply Equipment (EVSE)

The Cabinet:

- Having reviewed the Constitution;
- Federal Decree by Law No. (20) of 2020 Regarding Standardization and Metrology;
- Cabinet Resolution No. (35) of 2015 Regarding the UAE Regulation for the Control of Conformity Assessment Bodies;
- Cabinet Resolution No. (64) of 2022 regarding the National Metrology System;
- Cabinet Resolution No. (50) of 2024 regarding the Technical Requirements for Electric Cars in the United Arab Emirates; and
- Upon the proposal of the Minister of Industry and Advanced Technology and the approval of the Cabinet,

Hereby resolves as follows:

Article (1)
Definitions

For the purposes of implementing the provisions of this Resolution, the following terms and expressions shall have the meanings assigned to each of them, unless the context requires otherwise:

Ministry	:	The Ministry of Industry and Advanced Technology.
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Authorized Entity	:	Any governmental entity, whether federal or local, or any private entity formally authorized by the Ministry to carry out any of the tasks and powers stipulated under the provisions of this Resolution.

Owning Entity	:	The entity owning Electric Vehicle Charging Equipment during the period of its use and placement in service, including governmental or private entities responsible for the use of any such equipment subject to the provisions of this Resolution.
Electric Vehicle Supply Equipment (EVSE)	:	Equipment designated to charge or receive electrical energy to and from electric vehicles, measure the amount of such energy, store and display measurement results to the user, and transmit data to the billing system where applicable.
Metrological Verification	:	A conformity assessment procedure that results in the affixing of a verification mark and/or the issuance of a verification certificate.
Type Approval	:	A certificate issued by the Ministry based on a type evaluation report, certifying that this type of measuring instrument complies with its applicable legal requirements.
Supplier	:	The manufacturer, transporter, packer, assembler, processor, agent, or storage entity of EVSE, or any main or sub-distributor whose activity affects the characteristics of EVSE, or any commercial or legal representative responsible for importing EVSE subject to the provisions of this Resolution.
Metrological Marks	:	Marks affixed to legal measuring instruments indicating the extent of their compliance with applicable requirements in accordance with the in-force legislation, including verification mark, rejection mark, type approval mark, protection mark, seizure, or reservation marks.
Maximum Permissible Error (MPE)	:	The maximum error of a measuring instrument as specified in this Resolution, which shall not be exceeded.

Operating Conditions	:	The set of conditions required to be fulfilled during measurement to ensure that a measuring instrument or system operates for its intended purpose, including the range of values of the measurand and any other influencing factors, in accordance with the guide issued by the International Organization of Legal Metrology (OIML D 11:2013, 3.16).
Reference Operating Conditions	:	The approved standardized conditions under which the performance of a measuring instrument or system is evaluated and used as a basis for comparing measurement results, in accordance with the guide issued by the International Organization of Legal Metrology (OIML D 11:2013, 3.17).

Article (2)

Scope of Application

1. The provisions of this Resolution shall apply to EVSE operating on alternating current (AC) or direct current (DC) and used in public places or commercial locations to provide paid charging services, whether operated by governmental entities, the private sector, or licensed operators.
2. EVSE intended for domestic or private use that is installed and operated by individuals in their private residences shall be excluded from the application of this Resolution, even if electricity consumption is billed by the main service provider, unless such equipment is used to provide paid charging services to third parties.

Article (3)

Responsibilities

1. The Authorized Entity shall be responsible for coordinating with the Owning Entities to prepare and implement verification and control plans for EVSE and to ensure that such equipment obtains conformity certificates issued by the Ministry.

2. The Owning Entity shall use EVSE that complies with the requirements set out in this Resolution and cooperate with the Ministry and Authorized Entities to implement its provisions.

Article (4)

Registration in the Conformity Assessment System

1. The Supplier shall obtain an electrical safety conformity certificate for EVSE issued by the Ministry in accordance with approved standards prior to placing them into public use, and pursuant to the procedures of the UAE Conformity Assessment System (ECAS).
2. The Owning Entity and the Supplier shall obtain a conformity certificate for the metrological requirements issued by the Ministry for EVSE prior to placing them into public use, in accordance with ECAS procedures.

Article (5)

Metrological Requirements for EVSE

1. Units of Measurement:

Electrical active energy shall be expressed in one of the following units of measurement:

a. Watt-hour.
b. Kilowatt-hour.
c. Megawatt-hour.
d. Gigawatt-hour (Wh/kWh/MWh/GWh).

2. Operating Conditions:

Operating conditions shall be as specified in Schedule (1) annexed to this Resolution.

3. Accuracy Requirements:

a. General Requirements:

1) The manufacturer shall specify the accuracy class of EVSE, provided that it is one of the following classes: (A), (B), or (C).
2) EVSE shall be designed and manufactured so that the MPE for the specified class is not exceeded under operating conditions.

3) EVSE shall be designed and manufactured to prevent critical failures when exposed to the disturbances specified in the guide issued by the International Organization of Legal Metrology (OIML G22).

b. Direction of Energy Flow:

1) Where the manufacturer specifies that EVSE is designed for bidirectional energy flow, it shall be capable of correctly handling the mean energy flow in both positive and negative directions and shall comply with the requirements of the guide issued by the International Organization of Legal Metrology (OIML G22) relating to bidirectional energy flow. The polarity of the energy flow shall be determined in accordance with manufacturer's wiring instructions for EVSE.
2) For alternating current AC EVSE, the mean energy flow shall refer to the sum of instantaneous power over at least one nominal frequency cycle.
3) EVSE shall fall under at least one of the following categories:
    a. Bidirectional (dual-register): Equipment capable of measuring and recording the mean energy flow in both directions with separate registers.
    b. Unidirectional (single-register – positive direction only): Equipment capable of measuring and recording the mean energy flow in the positive direction only. This functionality may be integrated into the design so that only positive mean energy flow is recorded, or the equipment may be fitted with a reverse operation prevention mechanism, provided that the manufacturer specifies the approved method in each case.

    Note: "Single-register" and "dual-register" referred to in paragraphs (a) and (b) of this clause refer only to the main energy registers; EVSE may contain additional registers such as those intended for storing tariff and/or phase information.

c. Permissible Error Limits According to the Classification of EVSE:

Actual measurement errors shall be within the permissible error limits specified in the table below for the specified current ranges when energy value is at least equal to the Minimum Measured Quantity (MMQ) and EVSE is operated under the reference operating conditions.

Quantity		Base maximum permissible errors (%) for class		
Current, *I*	Power Factor	A (2%)	B (1%)	C (0.5%)
$I_{st} \leq I < I_{min}$	> 0.9	± 25	± 15	± 10
$I_{min} \leq I < I_{tr}$	> 0.9	± 25	± 1.5	± 1.0
$I_{tr} \leq I < I_{max}$	> 0.9	± 2.0	± 1.0	± 0.5

Note: Electric vehicles operate in accordance with specified specifications at a power factor greater than 0.9.

d. Permissible Limits for the Influence Factors Affecting Measurements:

The error deviation resulting from a change in each of the influence factor quantity shall remain within the permissible error limits specified in Table (4) of the guide issued by the International Organization of Legal Metrology (OIML G 22), provided that the reference operating conditions for the remaining factors are maintained, as follows:

1) Temperature influence factor.
2) Self-heating.
3) Voltage variation (for alternating current charging equipment only).
4) Frequency variation (for alternating current charging equipment only).
5) Voltage and current fluctuation (for alternating current charging equipment only).
6) Phase sequence reversal (for three-phase current only).
7) Conducted disturbances (low frequency).
8) Continuous magnetic induction from an external source.
9) Alternating current magnetic field from an external source.
10) Electromagnetic field radiation.
11) Radio frequencies.
12) Auxiliary devices.

e. Permissible Disturbance Influence:

1. Electric Vehicle Supply Equipment (EVSE) shall operate in a manner that enables it to withstand disturbances under normal operating conditions without producing critical errors, when subjected to electrical, environmental, and mechanical

disturbance limit tests specified in Tables (5), (6), and (7) of the guide issued by the International Organization of Legal Metrology (OIML G 22).

2. Electric Vehicle Supply Equipment (EVSE) shall be designed to maintain sufficient stability of its metrological characteristics throughout the reverification period determined by the Ministry, or for a period of eight (8) years where no such period is specified, provided that it is installed, maintained, and used correctly in accordance with the manufacturer's instructions and within the environmental conditions for which it was designed.

4. Charging System Requirements

a. Markings:

1) Each Electric Vehicle Supply Equipment (EVSE) shall clearly bear the following essential information:
   a. Type approval mark.
   b. Approval number or identifier.
   c. Manufacturer's name.
   d. Year of manufacture.
   e. Model.
   f. Serial number.
   g. Electrical voltage range (minimum and maximum voltage).
   h. Electrical current range (starting current / minimum / transitional / maximum current).
   i. Frequency.
   j. Temperature range.
   k. Accuracy class.
   l. Minimum Measured Quantity (MMQ).
   m. Charging modes.
2) All markings shall be distinct, clearly legible, indelible, and capable of withstanding environmental factors, particularly exposure to sunlight.

3) Where the serial number is affixed to a detachable part, it shall also be affixed at another location in such a manner that it cannot be separated from the parts determining the metrological characteristics.
4) Symbols or similar markings may be used where necessary, provided that they are acceptable to the Ministry.

b. Fitness for Use:

1) Electric Vehicle Supply Equipment (EVSE) shall comply with all requirements set out in this Resolution, including all metrological requirements and any requirements relating to software and the internal clock (where applicable).
2) The accuracy class shall be determined at the connection point to the vehicle.
3) For Electric Vehicle Supply Equipment (EVSE) applying a correction mechanism to compensate for energy losses introduced by parts (such as cables), compliance with the relevant requirements shall be verified in accordance with the guide issued by the International Organization of Legal Metrology (OIML G22, 4.2.1.3).

5. Tariff Requirements:

a. Electric Vehicle Supply Equipment (EVSE) that enables the application of multiple tariffs during an energy transfer session shall meet the following requirements:
   1) The applied price shall not be changed during the transaction unless prior approval has been obtained by the user through the device or through an application linked thereto.
   2) Electric Vehicle Supply Equipment (EVSE) shall be able to measure and store all billing-related data.
   3) The sum of all energy recorded in the multiple tariff registers shall be equal to the total energy transferred during the transaction.
   4) Only one register may be active at any time during the transaction.
   5) The following information shall be clearly identifiable for each part of the transaction:
      a. The amount of energy transferred.
      b. The time interval over which the energy was transferred.
      c. The direction of energy transfer, where applicable.

d. The unit price applied; and, in the case of multiple tariffs, such tariffs shall be clearly visible to the customer as part of the variable pricing applied through interaction with the Electric Vehicle Supply Equipment (EVSE).

b. In the event of a power outage, the transaction shall be temporarily suspended at the time of the outage.

c. Upon restoration of power following a power outage affecting Electric Vehicle Supply Equipment (EVSE), the following provisions shall apply:

1) Where the Electric Vehicle Supply Equipment (EVSE) is able to determine that it is connected to the same vehicle before and after the power outage, charging may be resumed without additional approval, and the ongoing transaction may be completed normally.

2) Where the Electric Vehicle Supply Equipment (EVSE) is not able to determine that it is connected to the same vehicle before and after the power outage, the transaction shall be terminated at the point at which the power outage occurred.

3) Where resumption of the transaction is not possible following a power outage, all information relating to the last transaction shall be available for a period of no less than fifteen (15) minutes upon restoration of power.

4) The charging process may be cancelled without charging any fees to the customer, or the Electric Vehicle Supply Equipment (EVSE) operator may complete the transaction and charge the customer solely for the services provided up to the moment of the power outage, provided that all requirements relating to a completed transaction are fulfilled.

6. Access to Data:

a. The end user shall be able to access data through the data display or user interface.

b. The following requirements shall apply to all client interface:

1) Electric Vehicle Supply Equipment (EVSE) shall be able to display all data relevant for billing purposes in a clearly readable manner.

2) The amount of energy being transferred shall be displayed either continuously or on demand.

3) A means shall be provided enabling the user to enter any data relevant to the transaction.
4) For multi-tariff devices, data relating to each applied tariff, including any decimal fractions, shall be displayed in a manner that ensures such data is not significantly affected by exposure to Operating Conditions throughout the service life of the charging equipment.

Article (6)

Metrological Verification

1. **Initial Verification Requirements:**

   For the purposes of compliance with the requirements for initial verification and post-maintenance verification, Electric Vehicle Supply Equipment (EVSE) shall meet all requirements set out in the guide issued by the International Organization of Legal Metrology (OIML G22).

2. **Periodic Verification Requirements:**

   Periodic verification shall be conducted once annually and shall include the following inspections:

   a. Visual inspection, including, without limitation, verification of the integrity of the metrological markings, the absence of any visible defects, and verification of the charging equipment serial number.
   b. Verification of the maximum permissible error in accordance with the table set out in Clause (3) of Article (5) of this Resolution.
   c. Verification of the availability of a valid calibration certificate issued by a laboratory accredited in accordance with the international standard ISO/IEC 17025.
   d. Verification that the Electric Vehicle Supply Equipment (EVSE) holds a Certificate of Conformity.

3. **Verification Certificate:**

Upon completion of the verification procedures, the Ministry shall issue a Verification Certificate for the Electric Vehicle Supply Equipment (EVSE), including the results. This certificate shall contain, at a minimum, the following key information:

a. Name and details of the Owning Entity.
b. Name and details of the Supplier or commercial agent.
c. Date of verification.
d. Equipment details, including:
    1) Registration certificate number under the UAE Conformity Assessment System (ECAS).
    2) Manufacturer details.
    3) Serial number.
    4) Trade name.
    5) Model number.
e. Name and signature of the responsible technician, and the name and signature of the authorized verifier of the Verification Certificate.

Article (7)

General Provisions

1. The provisions of this Resolution shall not prevent the Ministry or Authorized Entities from conducting additional inspections to verify the compliance of Electric Vehicle Supply Equipment (EVSE) referred to herein with the mandatory requirements stipulated in other applicable legislation.
2. Verification procedures for Electric Vehicle Supply Equipment (EVSE) referred to in this Resolution shall only be conducted by the Ministry or the entities authorized thereby.
3. All entities concerned with this Resolution shall provide Ministry inspectors and Authorized Entities with all assistance and information requested in connection with the implementation of this Resolution, promptly and without delay.
4. In the event of a violation of the provisions of this Resolution, the administrative penalties stipulated in Cabinet Resolution No. (64) of 2022 Regarding the National Measurement System shall apply.

5. For the public interest, the Ministry may take such measures as it deems appropriate in respect of cases not addressed under the provisions of this Resolution, or where a dispute arises regarding its interpretation or application. In doing so, the Ministry may rely on prevailing international practices in this field.
6. The guide issued by the International Organization of Legal Metrology (OIML G22) shall serve as a reference for the purposes of this Resolution.

Article (8)

Regularization of Status

Suppliers and Owning Entities shall regularize their status to comply with the provisions of this Resolution within (365) three hundred sixty-five days from the date of its entry into force.

Article (9)

Executive Resolutions

The Minister shall issue the resolutions necessary to implement the provisions of this Resolution.

Article (10)

Publication and Entry into Force

This Resolution shall be published in the Official Gazette and shall enter into force after (180) one hundred eighty days from the date of its publication.

Mohammed bin Rashid Al Maktoum

Prime Minister

Issued by us:

On: 27 Jumada al-Ula 1447 A.H.

Corresponding to: 18 November 2025 A.D.

Schedule (1)

Operating Conditions

<table>
<tr><th>Quantity</th><th>Range/Scope</th></tr>
<tr><td>Frequency (1)</td><td>The manufacturer shall specify the nominal frequency (fnom) of the device, and a tolerance of (±2%) around this nominal frequency shall be permitted. The device must operate normally within this range. If the manufacturer specifies more than one nominal frequency, the rated operating conditions shall be deemed to cover the full combined ranges of all specified nominal frequencies, with the (±2%) tolerance applied to each.</td></tr>
<tr><td>Voltage</td><td>– Alternating Current Electric Vehicle Supply Equipment (AC EVSE):
Nominal Voltage (U_{nom}):
U_{nom}, $0.9 \times U_{nom}$ to $1.1 \times U_{nom}$
– Direct Current Electric Vehicle Supply Equipment (DC EVSE):
From the lowest to the highest output voltage.</td></tr>
<tr><td>Current</td><td>– The starting current (I_{st}), the minimum current (I_{min}), and the maximum current (I_{max}) shall be specified by the manufacturer.
– The minimum current (I_{min}) must be equal to or less than the transition current (I_{tr})
<table>
<tr><td>Mode</td><td>AC</td><td>AC</td><td>DC</td><td>DC</td></tr>
<tr><td>I_{tr}</td><td>$\leq$ 5.0 A</td><td>$\leq$ 0.10</td><td>$\leq$ 25 A</td><td>$\leq$ 0.10</td></tr>
<tr><td>I_{max}</td><td>$\leq$ 80 A</td><td>$>$ 80 A</td><td>$\leq$ 500 A</td><td>$>$ 500 A</td></tr>
</table></td></tr>
<tr><td>Power Factor (1)</td><td>$\geq$ 0.9</td></tr>
<tr><td>Temperature</td><td>The manufacturer shall specify the temperature range from the lower to the upper temperature limit, as follows:
– Lower temperature limit from the values:
(-55 °C, -40 °C, -25 °C, -10 °C, +5 °C)
– Upper temperature limit from the values:
(+30 °C, +40 °C, +55 °C, +70 °C, +85 °C)</td></tr>
</table>

Humidity and Water	The manufacturer shall specify the environmental class for the Electric Vehicle Supply Equipment (EVSE) as follows: – **H1**: Enclosed locations where the EVSE is not exposed to condensed water, precipitation, or ice formations. – **H2**: Enclosed locations where the EVSE may be exposed to condensed water, water from sources other than rain, or ice formations. – **H3**: Open locations with average climatic conditions.
Harmonics [1]	– For AC EVSE: The EVSE shall operate correctly when the supply voltage distortion is less than 10% and the load current distortion is less than 3% for all harmonic indices.
Ripple [2]	– For DC EVSE: The ripple produced on the output of the EVSE shall comply with the international standard (IEC 61851-23) and shall only measure energy containing frequencies up to (2) kHz.
Load Balance [1]	– For polyphase EVSE: EVSE shall operate correctly with any combination of active phases.
MMQ [3] (Minimum Measured Quantity)	– For AC EVSE: The MMQ must not exceed (0.1) kWh. – For DC EVSE: The MMQ must not exceed (1.0) kWh.
[1] Applies only to AC EVSE. [2] Applies only to DC EVSE. [3] If the Minimum Measurable Quantity (MMQ) is not marked, it must be specified.	