# GUIDELINES FOR THE REGISTRATION OF ELECTRIC VEHICLE CHARGERS

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# 1. Requirements for Registration of Electric Vehicle (EV) Chargers

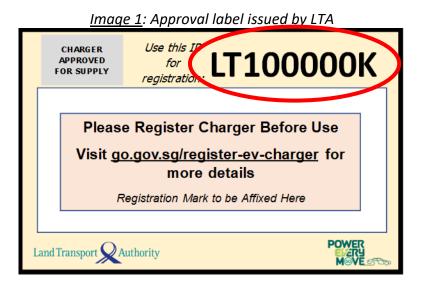
1. Under the Electric Vehicle Charging Act (EVCA), EV charger owners are responsible for ensuring that EV chargers are registered with LTA before they are used in Singapore. Registration ensures accountability for the proper use and maintenance of EV chargers.

# 1.1 Approval of EV Chargers

- 2. After the commencement of the EVCA, new EV chargers must be type approved (or "homologated") by LTA before they can be installed, certified, and registered with LTA.
- 3. EV chargers must comply with the safety and performance standards under the Technical Reference 25 (TR25) the national EV charging standard that sets out technical safety requirements for EV chargers before they can be type-approved in Singapore.

#### Approval labels for approved EV chargers

- 4. New EV chargers that are type approved by LTA will need to be affixed with an approval label (Image 1) before supply. The approval label indicates that the EV charger has met the TR 25. Anyone looking to purchase an EV charger after the commencement of the EVCA should consider one that has been affixed with an approval label.
- 5. To check the validity of an approval label, you may enter the type approval ID indicated on the approval label (red circle in <a href="Image 1">Image 1</a>) into the "Enquire Label Status" on LTA's OneMotoring website. The relevant technical information of the EV charger will be displayed and should correspond with the EV charger that the label is affixed on. If you encounter any discrepancies in the information displayed, please inform LTA at LTA EV Charging@lta.gov.sg.



### **EV Chargers without approval labels**

6. To smoothen the industry's transition, LTA will provide a grace period for existing suppliers to continue supplying their EV chargers for 6 months after the commencement of the EVCA. During the transitional period, some new EV chargers may not come with an approval label as suppliers may still be in the process of getting their EV chargers type-approved. Anyone who is considering purchasing such EV charger(s) is strongly advised to check with their supplier on whether the EV charger model has previously been issued with a Letter of No Objection (LNO), which indicates that the EV charger has met LTA's safety standards (i.e. TR 25). A list of chargers with an LNO can also be found on LTA's website. EV chargers that do not have an LNO, and therefore have not been verified to comply with LTA's safety standards, will not be allowed to be registered for safety reasons.

# 1.2. Locations for Installation or Use of EV Chargers

7. Under the EVCA, EV chargers can only be installed and/or used in certain locations depending on their class of approval and EV connector type.

#### Classes of Approval: Restricted and Non-Restricted Access Use

- 8. An EV charger will be approved for a specific class, which will determine where the EV charger can be installed and/or used subsequently.
- 9. Under the EVCA, EV chargers approved for <u>restricted access use</u> are strictly meant for use in restricted access locations. These locations refer to the parking spaces or locations for parking in landed dwelling houses that are not comprised within a strata title plan registered under the Land Titles (Strata) Act 1967, and will include bungalows, detached houses, semi-detached houses, and terrace houses.
- 10. EV chargers approved for <u>non-restricted access use</u> can be used in any place including restricted access location.
- 11. Please note that it is an offence to use a restricted access EV charger in a non-restricted access location.

#### Standardised EV Connectors for Publicly Accessible EV Chargers

12. Publicly accessible EV chargers<sup>1</sup> refer to EV chargers that can be used by any member of the of the public (e.g., HDB carparks, malls, petrol kiosks), while non-publicly accessible

<sup>&</sup>lt;sup>1</sup> EV chargers that are publicly accessible will be reflected on LTA's MyTransport.Sg Mobile Application.

EV chargers refer to those that can only be used by a selected group of users (e.g., condos that do not allow public access).

- 13. For <u>publicly accessible locations</u>, only fixed EV chargers that come with Type 2 AC and/or Combo-2 DC (or CCS2) connectors can be installed. CHAdeMO connectors may be provided as an alternative charging option, in addition to Type 2 and/or CCS2 connectors.
- 14. For <u>non-publicly accessible locations</u>, in addition to what is allowable for publicly accessible locations above, Type 1, CCS 1, or proprietary connectors that are covered under the TR25 may also be provided. EV chargers with only CHAdeMO connectors (i.e., does not come with Type 2 or CCS 2 connector) may be provided as well.

<u>Table 1</u>: Illustration of EV connectors allowed

Scenarios	EV charger connector
EV chargers with Type 2 AC or CCS2 DC connectors can be installed in <b>both publicly accessible and non-publicly accessible locations</b> .	Type 2 or CCS2 connector
EV chargers with CHAdeMO connectors, when provided together with Type 2 and/or CCS2 connectors, can be installed in <b>both publicly accessible and non-publicly accessible locations</b> .	Type 2 or CCS2 connector  CHAdeMO connector
CHAdeMO-only EV chargers are <b>not allowed</b> in publicly accessible locations	CHAdeMO connector

#### Residential premises

15. For residential premises<sup>2</sup>, EV chargers can only be installed and/or used at locations where a vehicle may ordinarily park, for example, in garages and carparks.

<sup>&</sup>lt;sup>2</sup> A residential premise refers to any part of any land that is zoned for residential purposes by the URA.

16. Under the EVCA, it will be an offence to use an EV charger improperly or allow an EV charger to be used improperly. This will include using an EV charger in ways that do not comply with the requirements under section 1.2 of these Guidelines.

# 1.3 Installation and Certification of EV Chargers

- 17. EV chargers must be installed (for fixed EV chargers) and certified as fit for charging EVs according to requirements under the EVCA. The Certificate of Fitness issued upon the certification of an EV charger will need to be provided during the subsequent registration of the EV charger with LTA.
- 18. Under the EVCA, the installation of a fixed EV charger must be carried out by a Licensed Electrical Worker (LEW).<sup>3</sup> Certification of EV chargers must be carried out by a charger equipment specialist.<sup>4</sup> A list of LEWs can be found at <a href="https://www.ema.gov.sg/Electricity Search for Licensed Workers.aspx">https://www.ema.gov.sg/Electricity Search for Licensed Workers.aspx</a>. A list of certified equipment specialists will be published on LTA's website when ready.
- 19. Only type approved EV charger models may be installed or certified as fit for charging EVs in Singapore. Fixed EV chargers approved for restricted access use may only be installed at a restricted access location.
- 20. Please refer to "Guidelines for the Supply of EV Chargers", section 2.3 for details on the requirements for the installation and certification of EV chargers.

# 2. Registration of an EV Charger

- 21. EV charger owners are responsible for ensuring that EV chargers are registered with LTA before they are used in Singapore. Allowing an unregistered EV charger to be used may constitute an offence.
- 22. Existing EV charger owners, i.e. those who own an EV charger before 8 Dec 2023, will have a 6-month grace period to register their chargers. During this period, these unregistered EV chargers can continue to be used. After 7 June 2024, it will be an offence to use an unregistered EV charger. Please refer to the following <u>Table 2</u> for further details.

<sup>&</sup>lt;sup>3</sup> LEWs are personnel licenced by the Energy Market Authority (EMA) to carry out electrical works.

<sup>&</sup>lt;sup>4</sup> LEWs and charger equipment specialists may engage assistants to assist them in carrying out the installation or certifications works, but must ensure that they supervise the assistants during the works.

<u>Table 2</u>: EV Charger Registration Requirements

	Existing EV Chargers	New EV Chargers		
	Group A Purchased and installed before EVCA commencement	Group B Purchased before EVCA commencement and installed during transitional period	Group C Purchased and installed during transitional period	Group D Purchased and installed after transitional period
Use of EV charger owners continue to use chargers vegistration during transitional per		e chargers without	EV charger of before registra	cannot be used tion
IDs required for registration	Submit application for a provisional ID	<ul> <li>Type approval approval label or</li> <li>Contact LTA to provisional ID</li> </ul>		Type approval ID found on approval label

#### Application for registration of EV chargers with approval labels

- 23. New EV chargers purchased and installed after the transitional period (Group D) must come affixed with an approval label. For owners of EV chargers with approval labels, applications for registration can be made via the OneMotoring website which also contains a step-by-step guide.
- 24. The following information will need to be submitted:
  - a. Type Approval ID of the approval label
  - b. Manufacturer's Serial ID of the EV charger
  - c. Car Park Code (only applicable for HDB/URA carparks)
  - d. Address of EV charger
  - e. Details of the Licenced Electrical Worker (LEW) and Equipment Specialist involved in installation and certification of EV charger
  - f. Certificate of Fitness
  - g. Photograph(s) of the EV charger.
- 25. A registration fee of \$750 is applicable for the registration of an EV charger. To support early deployment of EV chargers, the Government will provide time-bound subsidies for the charger registration fee. (details can be found on LTA's website). Applicants may expect a response from LTA within 3 days from the date of submission via an e-letter in the applicant's OneMotoring inbox. Applicants may use their EV charger(s) once it is successfully registered, while awaiting the registration mark to be delivered to the mailing address provided.

#### Application for registration of EV chargers without approval labels

- 26. Existing EV chargers that were purchased and installed before 8 Dec 2023 (Group A) will not have any approval labels, given that these EV chargers were already in use before the commencement of the EVCA. Owners of such existing EV chargers may submit an application via <a href="https://go.gov.sg/existing-ev-charger">https://go.gov.sg/existing-ev-charger</a> for LTA's verification (stage 1). Successful applicants will be issued with provisional ID(s) to register their EV charger(s) via the OneMotoring website (stage 2).
- 27. For stage 1, the following details will need to be provided:
  - a. Manufacturer of EV charger
  - b. Model name/type reference of EV charger
  - c. Date of installation of EV charger
  - d. Proof of purchase (e.g. receipt or delivery invoice)
  - e. Particulars of applicant (e.g. name, NRIC/FIN/UEN<sup>5</sup>, contact number, email address)
  - f. Number of EV charger(s) to be registered
  - g. Photos of each EV charger(s) (which should show the manufacturer name plate of the EV charger)
- 28. LTA will check the application to verify whether the EV charger had been issued with a Letter of No Objection (LNO) and will inform the applicant of the outcome within 30 days, via email. For EV chargers that are successfully verified, LTA will issue a provisional ID via an e-letter in the applicant's OneMotoring inbox, for the applicant to register the EV charger via the OneMotoring website (stage 2). If the EV charger is not successfully verified to have an LNO, the applicant will be required to replace the EV charger for safety reasons before 8 June 2024.
- 29. **EV** chargers purchased during the transitional period (<u>Group C</u>) or before 8 Dec 2023 (<u>Group B</u>) may not come with an approval label. Owners of such chargers can contact their respective supplier to request for an approval label.
- 30. Alternatively, EV charger owners may submit an application for a provisional ID at <a href="https://go.gov.sg/new-ev-charger">https://go.gov.sg/new-ev-charger</a> to register their EV chargers. LTA will require details of the EV charger to verify whether the EV charger had been issued with an LNO and will inform you of the outcome within 30 days via email. For EV chargers that are successfully verified, LTA will issue a provisional ID via an e-letter in the applicant's OneMotoring inbox, for the applicant to proceed to register the EV charger via the OneMotoring website.

<sup>&</sup>lt;sup>5</sup> A UEN number should be provided for EV charger(s) that will be registered under a corporate entity (e.g. company). To register EV charger(s) under an individual person, please provide the NRIC or FIN number in the application form.

## 2.1 Registration Marks for Registered EV Chargers

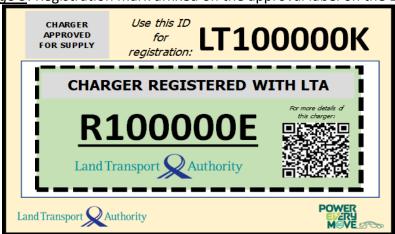
31. Upon successful registration, LTA will issue a confirmation letter and registration mark (Image 2) to the EV charger owner, or Registered Responsible Person (RRP). RRPs must affix the registration mark onto the EV charger, as proof of registration, within 60 days from the date of registration. Should the original registration mark be lost or destroyed, RRPs may choose to apply for a replacement label on the OneMotoring website, subject to a fee of \$2 (before GST) per replacement label.

<u>Image 2</u>: Registration mark which will be provided by LTA upon registration of the EV charger.



32. For EV chargers that come with an approval label, the registration mark must be affixed on the approval label (Image 3).

<u>Image 3</u>: Registration mark affixed on the approval label on the EV charger.



- 33. For EV chargers that do not come with an approval label, the registration marks must be affixed on the EV chargers in an upright position and does not obscure the manufacturer's information plate. The label must be affixed at a prominent location and clearly visible to all users, as per the illustration in <u>Table 3</u>.
- 34. Affixing the registration mark on a different EV charger from one registered with LTA, or removing the registration mark affixed to an EV charger, may constitute an offence.

Table 3: Locations for Registration Marks on EV chargers

Type of Charger	Reference	
n o		
Fixed EV charger (including BCSS and pantograph EV charger)	Registration marks must be affixed either at the front or the side panel of the EV charger, as seen below.  Fixed EV Charger  Battery Charge and Swap Station	
	Specifically for <u>pantograph EV chargers</u> , registration marks must be affixed at the top right-hand corner of the power cabinet.	
Non-fixed EV charger	Registration marks must be affixed on the In-cable Control and Protection Device (IC-CPD) of the EV charger, or on the off-board EV charger.  IC-CPD  Non-fixed EV Charger	

# 3. <u>Inspection and Maintenance of an EV Charger</u>

35. RRPs must ensure that EV chargers are periodically inspected and maintained by qualified personnel. Inspection frequencies vary depending on where the EV chargers are installed (for fixed EV chargers) and/or used. Similar to installation and certification of EV chargers,

periodic inspection and maintenance of EV chargers must be carried out by LEWs and charger equipment specialists.<sup>6</sup> The details are in <u>Table 4</u> below.

<u>Table 4</u>: Frequency of inspection and maintenance

Location	Qualified personnel required	Frequency required
Restricted Access	Equipment specialist	Every 24 months
Non-Restricted Access	Equipment specialist	Every 6 months
Non-Nestricted Access	LEW	Every 12 months

36. RRPs must retain the Certificates of Fitness (issued after the first certification of an EV charger) and subsequent Certificates of Continued Fitness (issued after every periodic inspection of the EV charger) for at least 2 years from the date of the certificates, and will be required to submit these to LTA upon request. Failure to ensure that EV chargers have been periodically inspected and maintained may constitute an offence.

# 4. <u>Use of EV Charger</u>

37. Beyond ensuring that EV chargers are kept in good condition, RRPs must also ensure that their EV chargers are used properly to ensure public safety. **This will include the requirements specified in section 1.2 of these Guidelines, as well as the following**:

For all chargers (except a Battery Charge and Swap Station):

38. Ensure that EV connectors of EV chargers are used without any adaptor.

<u>Image 4</u>: Example of adaptors that should not be used to EV connectors.



39. Ensure that EV chargers are not used to charge detachable batteries directly.

<sup>&</sup>lt;sup>6</sup> LEWs and charger equipment specialists may engage assistants to assist them in carrying out the installation or certifications works, but must ensure that they supervise the assistants during the works.

#### For restricted access use chargers:

- 40. Ensure that fixed EV chargers with EV socket are only used in the following manner:
  - With detachable cables (or replacement cables) that are provided with the original type-approved EV charger model;
  - Not used with charging cables that are permanently attached to EVs.
- 41. Ensure that non-fixed EV chargers are used without any extension cord, adaptor, or portable socket outlet, and only with a compatible and dedicated switch socket outlet equipped with a dedicated residual circuit device.

# 5. Alteration of Approved EV Chargers

- 42. Under the EVCA, alteration or modification of a type approved EV charger will require LTA's prior approval to ensure safety. Alteration or modification of an EV charger refers to any change to the EV charger from the model that was originally type approved by LTA, which will include any change in component, feature, functionality, or performance of the EV charger. This will include works to rectify any damage to the EV charger, or to return the EV charger to its original operable condition.
- 43. For avoidance of doubt, replacement of any part of the EV charger using components that have been previously type approved will not constitute an alteration. Replacement using any components that were not part of the EV charger model originally type approved by LTA will constitute an alteration that requires LTA's approval. Charger owners should consider checking with their EV charger supplier or an equipment specialist on whether a particular part replacement may require approval, where needed.
- 44. Alteration or modification may be carried out to either:
  - (i) a type approved charger that has yet to be registered, or
  - (ii) a registered charger of a type approved model.
- 45. An application fee of \$800 will be required for an alteration application. Successful applicants who have received LTA's approval for EV charger alteration must then apply for alteration-approved label(s) from LTA and affix the label(s) onto the EV charger(s). Applications for the alteration-approved label can be made via the OneMotoring website, subject to a fee of \$2 per label. Upon successful application, LTA will issue an e-letter via the applicant's OneMotoring inbox. LTA will also issue a hard copy letter and the alteration-approved label(s) by mail.
- 46. Each alteration-approved label will have a unique alteration-approval ID indicated on it. Should the alteration-approved labels be lost or destroyed, an application for replacement label(s) can be made on the OneMotoring website, subject to a fee of \$2 (before GST) per replacement label.

<u>Image 5</u>: Alteration approval label which will be provided by LTA upon approval for alteration of a type-approved charger.



<u>Table 5</u>: Suggested locations where the alteration-approved label(s) ought to be affixed on a charger

Type of Charger	Reference	
Fixed EV Charger	Approval labels must be affixed either at the front or the side	
(including BCSS and	panel of the EV charger, as seen below.	
pantograph EV		
charger)		
	Fixed EV Charger Battery Charge and Swap Station	
	Specifically for <u>pantograph EV chargers</u> , approval labels must be affixed at the <b>top right-hand corner of the power cabinet</b> .	
Non-fixed EV Charger	Approval labels must be affixed on the In-cable Control and Protection Device (IC-CPD) of the EV charger, or on the off-board EV charger.	

