First published in the Government Gazette, Electronic Edition, on 10 June 2024 at 5 pm.

### No. S 509

### ELECTRIC VEHICLES CHARGING ACT 2022

## ELECTRIC VEHICLES CHARGING (BEECHARGE INNOVATION GROUP PTE. LTD. — MOBILE CHARGER TRIAL) RULES 2024

### ARRANGEMENT OF RULES

### PART 1

### **PRELIMINARY**

#### Rule

- 1. Citation and commencement
- 2. Definitions

### PART 2

### APPROVED TRIAL

- 3. Specified person to undertake approved trial
- 4. Other participants of approved trial
- 5. Deployment of specified EV chargers for approved trial
- 6. Liability insurance

#### PART 3

### **DUTIES OF SPECIFIED PERSON**

- 7. Application of this Part
- 8. Duty to operate specified EV chargers in compliance with safety and performance standards
- 9. Duty to use specified electrical source to charge specified EV charger
- 10. Duty to have specified EV chargers periodically inspected
- 11. Duty to maintain specified EV chargers
- 12. Duty to manage risks and notify incidents, etc.
- 13. Duty to provide information upon request
- 14. Duty to seek approval to modify specified vehicle
- 15. Duty to disconnect and shut down specified EV chargers on end of approved trial

### PART 4

### **MISCELLANEOUS**

Rule

16. Modified application of certain Act provisions to approved trial The Schedules

In exercise of the powers conferred by section 28 of the Electric Vehicles Charging Act 2022, the Minister for Transport makes the following Rules:

### PART 1

### **PRELIMINARY**

### Citation and commencement

1. These Rules are the Electric Vehicles Charging (Beecharge Innovation Group Pte. Ltd. — Mobile Charger Trial) Rules 2024 and come into operation on 11 June 2024.

### **Definitions**

- 2. In these Rules
  - "approved trial" has the meaning given by rule 3;
  - "calendar day" includes Saturday, Sunday and every public holiday;
  - "incident reporting guidelines" means the incident reporting guidelines set out in the Fourth Schedule;
  - "mobile EV charger" means an EV charger that does not need to be powered by a connection to an electrical installation during the period in which the battery of an electric vehicle is being charged;
  - "parking place" has the meaning given by section 2 of the Parking Places Act 1974;
  - "prescribed competent person" means an individual prescribed under regulation 20 of the Electric Vehicles Charging

- (Electric Vehicle Chargers) Regulations 2023 (G.N. No. S 786/2023);
- "private parking place" has the meaning given by section 2 of the Parking Places Act 1974;
- "road" has the meaning given by section 2(1) of the Road Traffic Act 1961;
- "special type of EV charger" has the meaning given by rule 2 of the Electric Vehicles Charging (Trials and Special Uses) (General) Rules 2023 (G.N. No. S 791/2023);
- "specified electrical source" means an electric charger bearing a product serial number listed in the Third Schedule;
- "specified EV charger" means any special type of EV charger that is a mobile EV charger bearing any of the serial numbers listed in the First Schedule;
- "specified period" means the period from 11 June 2024 to 10 June 2028 (both dates inclusive);
- "specified person" means Beecharge Innovation Group Pte. Ltd. (UEN 202309990M);
- "specified vehicle" means a vehicle bearing a registration number listed in the Second Schedule;
- "TR25:2022" means the version of Technical Reference 25 for Electric Vehicles Charging System published by the Enterprise Singapore Board on 28 February 2022.

### PART 2

### APPROVED TRIAL

## Specified person to undertake approved trial

**3.** The specified person is authorised by the LTA to undertake a trial in respect of the specified EV chargers on any road or in any parking place or private parking place during the specified period (called in these Rules the approved trial).

## Other participants of approved trial

- **4.** In addition to the specified person, any person within the following classes of persons may participate in the approved trial:
  - (a) any employee, officer or agent of the specified person who is authorised by the specified person
    - (i) to alter, modify, advertise, supply, certify, install, test, operate or maintain any specified EV charger;
    - (ii) to provide an EV charging service using any specified EV charger;
    - (iii) to engage in business as a charging station operator using any specified EV charger; or
    - (iv) to charge an EV, or to allow an EV to be charged, using any specified EV charger;
  - (b) any person who is engaged by, or who collaborates with, the specified person
    - (i) to alter, modify, advertise, supply, certify, install, test or maintain any specified EV charger; or
    - (ii) to allow an EV to be charged using any specified EV charger;
  - (c) any employee, officer, agent or sub-contractor of any person mentioned in paragraph (b) who is authorised by that person to carry out the activities described in that paragraph in respect of the specified EV charger;
  - (d) any person who allows an EV to be charged using any specified EV charger.

# Deployment of specified EV chargers for approved trial

5.—(1) The specified person may only install, deploy, operate and maintain any specified EV charger on any road, or in any parking place or private parking place, during and for the purposes of the approved trial.

- (2) In carrying out any of the activities described in paragraph (1) in respect of any specified EV charger, the specified person must ensure that
  - (a) the specified EV charger is installed on a specified vehicle;
  - (b) the deployment, operation or maintenance of the specified EV charger
    - (i) does not cause any obstruction to traffic on the road, or in the parking place or private parking place, that may endanger any person; and
    - (ii) does not pose any hazard to, or endanger, any property; and
  - (c) appropriate measures are taken to abate or minimise any nuisance or inconvenience caused by the deployment, operation or maintenance of any specified EV charger.

## Liability insurance

- **6.**—(1) The specified person must
  - (a) before the approved trial starts, have in place liability insurance insuring against any third-party liability in respect of death, bodily injury or damage to property that a person may sustain or incur arising from the approved trial; and
  - (b) ensure that the liability insurance mentioned in sub-paragraph (a) is in force at all times during the approved trial.
- (2) The specified person must ensure that the liability insurance is issued by an insurer who, at the time the liability insurance is issued, is lawfully carrying on an insurance business in Singapore.
- (3) The LTA may impose conditions of authorisation in respect of the approved trial requiring the specified person to maintain the liability insurance mentioned in paragraph (1)(a)
  - (a) for a minimum amount of \$2 million per claim; and

- (b) under one or more approved policies, each of which
  - (i) must not contain any limit on the number of claims that may be made in each calendar year;
  - (ii) must state that the specified person is the party solely liable to pay the premiums in respect of the liability insurance; and
  - (iii) must contain a term that the contract of the liability insurance policies may not be amended without the written consent of the LTA.

### PART 3

### **DUTIES OF SPECIFIED PERSON**

# **Application of this Part**

7. Unless otherwise provided under this Part, the duties of the specified person under this Part apply during and for the purposes of the approved trial.

# Duty to operate specified EV chargers in compliance with safety and performance standards

- **8.** The specified person must ensure that the operation of every specified EV charger complies with any of the following applicable safety and performance standards:
  - (a) the version of European International Standard on Electric vehicle conductive charging system Part 1: General requirements published by the European Committee for Electrotechnical Standardization on 5 July 2019 (called EN IEC 61851-1:2019);
  - (b) the version of European International Standard on Electric vehicle conductive charging system Part 23: DC electric vehicle charging station published by the European Committee for Electrotechnical Standardization on 30 May 2014 (called EN 61851-23:2014);
  - (c) the version of European International Standard on Electromagnetic compatibility (EMC) Part 6-1:

- Generic standards Immunity standard for residential, commercial and light-industrial environments published by the European Committee for Electrotechnical Standardization on 22 February 2019 (called EN IEC 61000-6-1:2019);
- (d) the version of European International Standard on Electromagnetic compatibility (EMC) Part 6-3: Generic standards Emission standard for equipment in residential environments published by the European Committee for Electrotechnical Standardization on 26 March 2021 (called EN IEC 61000-6-3:2021);
- (e) the version of European International Standard on Electromagnetic compatibility (EMC) Part 3-2: Limits Limits for harmonic current emissions (equipment input current ≤16 A per phase) published by the European Committee for Electrotechnical Standardization on 9 April 2021 (called EN IEC 61000-3-2: 2019/A1:2021);
- (f) the version of European International Standard on Electromagnetic compatibility (EMC) Part 3-3: Limits Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤16 A per phase and not subject to conditional connection published by the European Committee for Electrotechnical Standardization on 5 November 2021 (called EN 61000-3-3: 2013/A2:2021).

# Duty to use specified electrical source to charge specified EV charger

- **9.**—(1) The specified person may only use a specified electrical source to charge a specified EV charger.
- (2) The specified person must ensure that the use of the specified electrical source to charge any specified EV charger complies with the recommendations of the manufacturer of the specified electrical source.

## Duty to have specified EV chargers periodically inspected

- 10. The specified person must ensure that every specified EV charger is inspected and certified by a prescribed competent person at the following frequency:
  - (a) after the end of 6 months starting on the start date of the specified period;
  - (b) thereafter, at intervals of at least 6 months starting on the date of the last certification.

## Duty to maintain specified EV chargers

- 11. The specified person must ensure that
  - (a) any specified EV charger deployed is at all times maintained in a state of good condition and in accordance with the applicable requirements set out in TR25:2022 as notified by the LTA to the specified person; and
  - (b) the charging system of any specified EV charger deployed is at all times functioning properly,

such that no harm or damage is caused, or likely to be caused, to any person or property.

## Duty to manage risks and notify incidents, etc.

- 12.—(1) The specified person must, before the start of the approved trial, submit a safety proposal to the LTA that sets out the measures which the specified person intends to implement to manage and mitigate the risks of the approved trial, for the LTA's approval.
- (2) The specified person must ensure that the measures set out in the safety proposal approved by the LTA are implemented at all times during the approved trial.
- (3) Where any accident, emergency or incident (called in this rule the relevant incident) occurs in the course of the specified person undertaking the approved trial that causes, or has the risk to cause, any threat to the health or safety of any person or any damage to any property or vehicle, the specified person must —

- (a) notify the LTA of the relevant incident without delay;
- (b) where the relevant incident is a type of incident specified in the incident reporting guidelines provide to the LTA an incident report in accordance with the requirements specified in the incident reporting guidelines as applicable to that type of relevant incident
  - (i) by email to lta\_electromobility@lta.gov.sg; and
  - (ii) in Microsoft Word format or portable document format (PDF); and
- (c) comply with any additional requirements that the LTA may require, including providing to the LTA, within 14 calendar days after receiving a written request from the LTA for any clarification in relation to any incident report mentioned in sub-paragraph (b), the clarification together with any information or documents in support of that clarification.

## **Duty to provide information upon request**

- 13. The specified person must, upon a written request by the LTA, provide to the LTA any information relevant to the undertaking of the approved trial
  - (a) in the case of any information about any accident arising from the approved trial that has caused, or has posed a risk of, bodily injury to any individual or damage to any property or vehicle by the date and time specified by the LTA in the written request; or
  - (b) in any other case within 14 calendar days after the date on which the specified person receives the written request.

## Duty to seek approval to modify specified vehicle

14.—(1) The specified person must obtain the LTA's approval for any modification to any specified vehicle, if the modification is likely to affect the safety of installation of a specified EV charger on the specified vehicle.

- (2) An application for the LTA's approval under paragraph (1) must be submitted at least 30 calendar days before the modification sought to be made is to be implemented.
- (3) The LTA may request the specified person to provide any other information that the LTA considers relevant to the application mentioned in paragraph (1).

## Duty to disconnect and shut down specified EV chargers on end of approved trial

- 15. Upon the cancellation of the authorisation granted to the specified person under rule 8 or 9 of the Electric Vehicles Charging (Trials and Special Uses) (General) Rules 2023, the specified person must, within 30 calendar days after the date on which the cancellation takes effect
  - (a) disconnect every specified EV charger from the specified electrical source; and
  - (b) shut down the specified EV chargers.

### PART 4

### MISCELLANEOUS

# Modified application of certain Act provisions to approved trial

- 16.—(1) During the specified period, section 25(3) applies to the inspection of a specified EV charger by a prescribed competent person under rule 10 as it applies to an inspection of an EV charger required by section 25, with the following modifications:
  - (a) a reference to an EV charger is a reference to a specified EV charger;
  - (b) a reference to the prescribed procedure and standard is a reference to the procedure and standard set out in the applicable form provided by the LTA to the specified person;
  - (c) a reference to a registered responsible person is a reference to the specified person;

- (d) a reference to complying with subsection (1) of section 25 is a reference to complying with rule 10.
- (2) Section 25(5) applies to the failure of a prescribed competent person to comply with section 25(3) as modified by paragraph (1).
- (3) During the specified period, section 31 (Tampering with EV charger, etc.) applies to a specified EV charger used in the approved trial with the modification that a reference to an EV charger is a reference to a specified EV charger.
- (4) During the specified period, Division 2 of Part 5 of the Act (Product defects) applies to a specified EV charger used in the approved trial with the following modifications:
  - (a) a reference to an EV charger is a reference to a specified EV charger;
  - (b) the references in sections 35(1), (2)(c), (4), (5) and (6) and 37(2)(a) to a manufacturer or supplier of an EV charger are references to the person who supplied a specified EV charger to the specified person;
  - (c) the reference in section 35(1) to the time prescribed is a reference to 7 calendar days;
  - (d) section 35(1)(b) and (c) is replaced with a reference to the specified person;
  - (e) the reference in section 35(3) to a person to whom the notice is addressed is a reference to the specified person;
  - (f) section 35(3)(b) does not apply;
  - (g) the reference in section 35(5) to the prescribed time is a reference to 14 calendar days or any longer time that the LTA may by written notice allow;
  - (h) the reference in section 36(1) to a person in section 35(1)(b) or (c) is a reference to the specified person;
  - (i) section 37(2)(b), (c) and (d) is replaced with a reference to the specified person;

- (j) the reference in section 38(1) to the person or class of persons is a reference to the specified person;
- (k) the reference in section 38(2) to a person is a reference to the specified person;
- (1) section 38(3), (4), (5) and (6)(b) and (c) does not apply;
- (m) the reference in section 39(1) to the person bound by a safety and security directive is a reference to the specified person;
- (n) the reference in section 39(2) to a person to whom a safety and security directive is given is a reference to the specified person.
- (5) During the specified period, section 45(1) and (2)(f) applies to the specified person with the following modifications:
  - (a) a reference to the granting of a licence to any person is a reference to the granting of an authorisation to the specified person to undertake the approved trial;
  - (b) a reference to the licensee is a reference to the specified person;
  - (c) a reference to the validity period of the licence is a reference to the specified period;
  - (d) a reference to approved policies is a reference to policies of insurance each of which is not subject to any conditions, exclusions or exceptions prohibited by these Rules;
  - (e) a reference to the regulated activity authorised by the licence is a reference to the approved trial.
- (6) A reference to a section in this rule is a reference to a section of the Act.

## FIRST SCHEDULE

Rule 2

### SPECIFIED EV CHARGER SERIAL NUMBERS

1. BC65-01

## SECOND SCHEDULE

Rule 2

### SPECIFIED VEHICLE REGISTRATION NUMBERS

1. GBM5700M

## THIRD SCHEDULE

Rule 2

### SPECIFIED ELECTRICAL SOURCE PRODUCT SERIAL NUMBERS

1. CED 2024020340C

# FOURTH SCHEDULE

Rule 2

## INCIDENT REPORTING GUIDELINES

First column	Second column	Third column
Type of relevant incident	Type of incident report required to be made to the LTA	Information required to be included in detailed incident report
Any accident involving a specified vehicle bearing a specified EV charger	<ul> <li>(a) Interim incident report within one hour after the specified person becomes aware of the relevant incident</li> <li>(b) Detailed incident report within 24 hours after the specified person becomes aware of the relevant incident</li> </ul>	<ul> <li>(a) Date, time and location of the relevant incident</li> <li>(b) Details of all persons and vehicles involved</li> <li>(c) Details of the weather and traffic conditions at the time of the relevant incident</li> <li>(d) Details of any damage to the vehicles involved or bodily injury to any person caused by the relevant incident, supported by photographic evidence</li> </ul>

First column	Second column	Third column
Type of relevant incident	Type of incident report required to be made to the LTA	Information required to be included in detailed incident report
		(e) Details of any damage to the specified EV charger caused by the relevant incident, supported by photographic evidence
		(f) Details of the suspected cause of the relevant incident, including any photographic or other supporting evidence
		(g) Details of actions taken in response to the relevant incident, including any contact of emergency services
		(h) Details of any steps proposed to be taken to prevent recurrence of the relevant incident

First column	Second column	Third column
Type of relevant incident	Type of incident report required to be made to the LTA	Information required to be included in detailed incident report
		(i) Details of any measures proposed to be implemented to address any safety hazards caused by the relevant incident
2. Any fire caused during or by the operation of a specified EV charger	(a) Interim incident report within one hour after the specified person becomes aware of the relevant incident (b) Detailed incident report within 24 hours after the specified person becomes aware of the relevant incident	<ul> <li>(a) Date, time and location of the relevant incident</li> <li>(b) Details of the circumstances leading to the relevant incident, including whether the process of charging or operation of a specified EV charger contributed to the relevant incident</li> <li>(c) Details of any damage to any vehicle, equipment, building or road, or bodily injury to any person, caused by the relevant incident, supported by photographic evidence</li> <li>(d) Details of actions taken in response to the relevant incident, including any use of</li> </ul>

First column	Second column	Third column
Type of relevant incident	Type of incident report required to be made to the LTA	Information required to be included in detailed incident report
		(e) Details of the suspected cause of the relevant incident, including any photographic or other supporting evidence
		(f) Details of actions taken in response to the relevant incident, including any contact of emergency services and management of persons at the scene of the relevant incident
3. Any technical failure or malfunction of a specified EV charger or mobile battery	<ul> <li>(a) Interim incident report within one hour after the specified person becomes aware of the relevant incident</li> <li>(b) Detailed incident</li> </ul>	<ul><li>(a) Date, time and location of the relevant incident</li><li>(b) Description of any equipment or systems affected by the relevant incident</li></ul>
	report within 5 days (excluding any day that is a Saturday, Sunday or public holiday) after the specified person becomes aware of the relevant incident	(c) Details of the likely impact of the relevant incident on the specified person's charging operations and provision of EV charging services

First column	Second column	Third column
Type of relevant incident	Type of incident report required to be made to the LTA	Information required to be included in detailed incident report
		(d) Details of any identified safety hazard posed by any malfunctioning equipment
		(e) Details of any action taken to address any technical failure, such as isolation of the relevant equipment
		(f) Details of any deployment of technical support personnel for the purpose of addressing the relevant incident
		(g) Details of any investigative findings into the likely cause of or contributory factors to the relevant incident
		(h) Details of any measures taken or proposed to be taken to address the likely cause of the relevant incident or prevent recurrence of the relevant incident

First column	Second column	Third column
Type of relevant incident	Type of incident report required to be made to the LTA	Information required to be included in detailed incident report
		(i) Any documentation of the relevant incident, including any log entries, maintenance reports or other incident reports

Made on 7 June 2024.

LOH NGAI SENG Permanent Secretary, Ministry of Transport, Singapore.

# [MOT.LT.271.0.015.0.1; AG/LEGIS/SL/89B/2020/14]

(To be presented to Parliament under section 96 of the Electric Vehicles Charging Act 2022).