本署檔案
OUR REF: ( ) in EP11/EV2/33 Pt.1
來函檔案
YOUR REF:
電 話
TEL. NO.: 2594 6401
圖文傳真
FAX NO : 2827 8040
電子郵件
E-MAIL:
網 址
HOMEPAGE: http://www.epd.gov.hk

Environmental Protection Department
Revenue Tower Office
33/F, Revenue Tower,
5 Gloucester Road, Wan
Chai, Hong Kong

環境保護署
稅務大樓辦事處
香港灣仔
告士打道 5 號
稅務大樓 33 樓

By Circulation

4 November 2025

To: All Authorized Persons
Registered Structural Engineers
Registered Geotechnical Engineers

Dear Sir/Madam,

Supplement to the Technical Requirements under the Technical Guidelines for Electric Vehicle (EV) Charging-enabling for Car Parks of New Building Developments (TGNBD)

Purpose

This Circular Letter aims to provide supplementary information / clarification from the Environmental Protection Department (EPD) regarding the following implementation arrangements of TGNBD issued by the Environment and Ecology Bureau in February 2023 with respect to provision of EV charging-enabling facilities required for disregarding car parking spaces from gross floor area calculation under the Practice Notes for Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineers (PNAP) APP-2 issued by the Buildings Department (BD). The supplementary information / clarification is resulted from the good exchange with the industry in the meetings held in June and August 2025.

(I) Alternative of Spatial Requirements – Paragraph 10 of TGNBD

2. Pursuant to paragraph 10 of the TGNBD, a minimum corridor width of 250mm and 400mm shall be reserved for installation of EV chargers for backside wall and back-to-back configuration of the parking spaces respectively. The purpose of setting the spatial requirements is to reserve sufficient space for the installation of ground mounted EV chargers.

3. With technology advancements, new EV medium chargers (output power of 7kW) have become more compact and suitable for <u>wall-mounted / ceiling mounted applications</u>. In this regard, with a view to allowing more flexibility in building design, the Authorized Person (AP) of the development projects may submit an alternative design for consideration by EPD provided that the EV chargers (non-ground mounted type) are installed in the vicinity of the car parking spaces and, as far as possible, do not encroach upon the parking spaces themselves. The installation of EV chargers should allow flexibility for their future operation and maintenance. Subject to EPD's final decision, the spatial requirements as stipulated in the paragraph 10 of TGNBD could be relaxed.

4. For other installation designs which are still using ground mounted EV chargers, EPD is also prepared to accept alternative designs for meeting the spatial requirements under paragraph 10 of TGNBD. The option on adopting alternative design as mentioned above is subject to the condition that the AP of the development project is able to demonstrate that the alternative designs can achieve the same performance as the spatial requirements with justifications provided in building plan submission stage for EPD's comments through BD's centralised processing system (CPS).

(II) Clarification on Diversity Factor – Paragraph 6 and Appendix I of TGNBD

5. Pursuant to paragraph 6 and Appendix I of the TGNBD, EPD would like to take this opportunity to clarify that the power capacity to be reserved under Appendix I of TGNBD is solely for the load demand of EV charging. On the other hand, the project proponent is advised to check with the relevant power company on their practice in relation to power demand assessment with a view to determining the overall power demand requirement under the development project.

(III) Clarification on Installation of Chargers – Paragraphs 5 and 9 and Appendix I of TGNBD

6. Pursuant to paragraph 5 and Appendix I of the TGNBD, EPD would like to take this opportunity to clarify that the installation requirement of 7kW EV medium chargers on all parking spaces for private cars (including accessible car parking space), motorcycles and light goods vehicles is applicable to all development projects. [Note: Accessible car parking space is regarded as one of the parking spaces for private cars.]

7. Regarding those non-residential development projects such as commercial shopping malls, the AP of the development project may opt to submit a proposal with the use of EV quick/fast chargers with output power of 50kW/100kW or higher as an alternative to the designated requirement of installation of 7kW EV medium chargers in all parking spaces for private cars, motorcycles and light goods vehicles except for accessible car parking spaces, provided that the total output power of all EV chargers (in kW) installed in all parking spaces required under TGNBD could be met (see example in Footnote of this Circular Letter)[1].

8. Adoption of the alternative proposal should be clearly indicated in the carparking schedule and the EV charging facility report as mentioned in paragraph 9 of this Circular Letter for EPD's acceptance. The AP of the development project and their consultants are advised to observe the requirements under paragraph 9 of TGNBD in the design of the final circuits to the new designed quick/fast charging facilities.

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[1] For example, in a commercial development project with a carpark of a total 98 hourly parking spaces for private cars, motorcycles and light goods vehicles and 2 accessible parking spaces, the required total output power of chargers will be 700kW (i.e. 7kW x 100 x Diversity Factor 1.0). As long as the total output power calculated under Appendix I of TGNBD could be met, the AP of the development project may, if he / she deems an alternative arrangement more suitable for a specific application, propose an installation of seven (7) 100kW EV fast chargers or other charger combinations with a total power of 700kW instead of the original proposal of 100 numbers of 7kW EV medium chargers (Note: The reserved power capacity (in kVA) for each EV charger with 100kW output power (i.e. 115kVA) under Appendix I of TGNBD should be followed). On the other hand, based on paragraphs 6 and 7 of this Circular Letter, two (2) 7kW EV medium chargers are required to be separately installed for the 2 accessible parking spaces.

(IV) Clarification on Submission of Design Information – Paragraphs 15 and 16 of TGNBD

9. The design information required under paragraph 15 of TGNBD should be submitted to BD in the following ways:

(a) A carparking schedule to be shown on the first submission of general building plans (GBP) and subsequent amendment plans listing the car parking spaces provisions and the number of car parking spaces to be equipped with EV charging-enabling facilities. For details, please refer to Appendix C of PNAP APP-2.

(b) An EV charging facility report containing the design information required under items (i) to (v) of the paragraph 15 of TGNBD certified by a Registered Professional Engineer (RPE)[2] on its compliance with the general and specific requirements under TGNBD to be submitted before application for consent to commence superstructure works together with GBP.

10. The submissions mentioned in paragraph 9 of this Circular Letter will be referred to EPD for comments through BD's CPS. Similar to the processing time of other government departments, EPD will notify BD if the submission is fundamentally acceptable or unacceptable[3] within 22 calendar days starting from the BD's referral date with a copy directly to AP and RPE. If the submission is fundamentally acceptable but with other comments / requirements made by EPD, AP should, in consultation with RPE, resolve the comments / requirements prior to the application for an occupation permit (OP).

(V) Clarification on Certificate of Completion – Paragraphs 17 and 18 of TGNBD

11. Based on paragraphs 9 and 10 of this Circular Letter, AP and RPE are required to ensure the completed EV charging-enabling facilities will align with the design information in their approved EV charging facility report under items (i) to (v) of the paragraph 15 of TGNBD. Upon completion of the installation of the EV charging-enabling facilities, the works completed on site and the latest design information shall be certified by an RPE and the RPE's certificate shall be submitted to the BD through the AP with a copy directly sent to EPD. Upon receiving the RPE's certificate, similar to the processing time of other government departments, EPD will advise BD within 10 calendar days starting from the BD's referral date whether they have no objection to the installation works certified by RPE. Similar to other supporting documents, the EPD's no objection to the completed EV charging-enabling facilities should be submitted at the time of submitting application for OP.

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[2] Registered under the Engineers Registration Ordinance (Cap. 409) of either the Electrical or Building Services discipline.

[3] The carparking schedule required under paragraph 9(a) will be considered as fundamentally acceptable if the requirements under paragraphs 6 to 8 of this Circular Letter are fulfilled. The EV facilities report required under paragraph 9(b) will be considered as fundamentally acceptable if it has included the basic design information as stipulated in paragraph 15 of TGNBD and the relevant supporting documents (e.g. the layout of carpark with parking spaces, the calculation of the required EV loading demand or the reserve power capacity for EV charging (i.e. Appendix I of TGNBD) for the application of new supply connection to the power company, the associated layout design of customer switch room and transformer room, etc.)

Enquiry

12. For enquiries about the content of this Circular Letter, please contact our EV Hotline at 3757 6222 or email ev@epd.gov.hk.

Yours faithfully,

(Dr. SO King-lung, Benny)
Principal Environmental Protection Officer (Mobile Source)
for Director of Environmental Protection

c.c.
Environment and Ecology Bureau
The Real Estate Developers Association of Hong Kong