

Section 3E: Electric Vehicle infrastructure- background and Phase 3 proposals for dwellings

Background

- 3E.1 The Northern Ireland Executive's Green Growth Strategy sets out its long-term vision for tackling the climate crisis and this is supported by its Energy Strategy – The Path to Net Zero Energy. Transport is responsible for 33% of greenhouse gas emission in Northern Ireland and, with the UK Government banning the sale of new fully petrol and diesel cars from 2030 and hybrids from 2035, decarbonisation of transport is a crucial part of achieving government targets for lowering carbon emissions. With a greater demand for Electric Vehicles (EVs) projected over the next few years, ready access to convenient and reliable EV charging infrastructure shall be required.
- 3E.2 Although policy relating to electric vehicles and transport in Northern Ireland rests with the Department for Infrastructure (DfI), the intention is to introduce these EPBD requirements using legislative provisions through amendments to the Building Regulations, which will require the provision of either charging points (CPs) or ducting infrastructure in all new dwellings, or buildings undergoing major renovation.
- 3E.3 We are seeking comments on DfI's preferred policy options relating to the installation of EV charge points and associated infrastructure (i.e. trunking, conduits, and/or cable trays for electricity cabling). These policies will facilitate the installation of EV charge points and associated infrastructure at residential dwellings and non-residential buildings in the coming years.
- 3E.4 Article 8 of the Energy Performance of Buildings Directive (EPBD)⁹⁷ deals with technical building systems, electromobility in and around buildings, and smart readiness indicators. Article 8 sets out the minimum requirements for the UK to adopt in complying with the EPBD. The minimum requirement includes the provision of ducting for electric vehicles and in some non-residential cases, a charge point, as listed in Table 1 – EPBD Requirements, below.

⁹⁷ 2010/31/EU as amended by 2018/844/EU

3E.5 For the purposes of section 3E and 4D of this consultation document, ‘residential’ is used interchangeably to mean ‘dwellings’, and ‘non-residential’ to mean ‘non-domestic’ or ‘buildings other than dwellings’.

Table 3E.1 EPBD Requirements

	CATEGORIES OF BUILDINGS	EPBD REQUIREMENTS
1	New, non-residential buildings with more than 10 parking spaces* * parking spaces within or physically adjacent to the building	Art 8.2 – Installation of At least one charging point (CP); and Ducting infrastructure for at least one in every five parking spaces
2	New residential buildings with more than 10 parking spaces	Art 8.5 – Installation of ducting infrastructure for every parking space
3	New domestic dwellings with a parking space located within the dwelling curtilage	None
4	Existing non-domestic buildings undergoing major renovation with more than 10 parking spaces.	Art 8.2 – installation of At least one CP; and ducting infrastructure for at least one in every five parking spaces.
5	Existing non-domestic buildings with more than 20 parking spaces.	Art 8.3 – require installation of a minimum number of CP points by 01 January 2025.
6	Existing domestic dwellings undergoing major renovation, with more than 10 parking spaces	Art 8.5 – installation of ducting infrastructure for every parking space.
7	Existing buildings undergoing material change of use to create a new dwelling	N/A, however if there are more than 10 spaces and these situations include a ‘major renovation’, it would bring Article 8.5 into play.
8	Removal of regulatory barriers	Art 8.7 – Requires the government to simplify the introduction of recharging points.

Please note that proposals go further than these minimum requirements.

3E.6 The UK government has announced plans to end the sale of new petrol and diesel cars and vans from 2030 onwards. All vehicles will be required to have a significant zero emissions capability (e.g. plug-in and full hybrids) from 2030 and be 100% zero emissions from 2035. As a result of this, there will be a transformational change in the composition of vehicles on our roads and the charging infrastructure for electric vehicles needs to be improved to facilitate this.

3E.7 In the years up to 2035, when sales of new hybrid cars will cease, we expect to see shifts in the technology around battery efficiency and range as well as corresponding reductions in battery costs, which will increase the ownership of EVs. The automotive industry is expected to bring a large range of EVs to the public market. In March 2023, there were 1.25 million registered vehicles in NI, of which around 12,890 were Ultra-Low Emission Vehicles (ULEVs), i.e., 1.1%. A research project commissioned by DfI to assess the development of EVs in NI, produced by Steer, forecasts that

there could be between 60,000 and 125,000 EVs in NI by 2025⁹⁸.

Therefore, such a significant increase in the number of EVs running on our roads necessitates a greater availability of CPs to conveniently recharge them.

- 3E.8 Charging electric vehicles at home is cheaper, offers added convenience for consumers and makes it possible for electric vehicles to play a major part in the overall energy and transportation systems. Therefore, the expectation is that the majority of electric car charging is likely to take place at home and home charging will be a central component of the future charging ecosystem.
- 3E.9 Although at-home/building EV charging will increase a building's electricity use, it may also bring benefits to some aspects of the overall building performance. For example, the β -factor (the percentage of electricity generated by on-site renewables able to be used at the building) would improve, but the assumptions on time of day charging use, interconnection with other on-site electricity storage and any bi-directional smart provision complicate any standardised assessment. These challenges will need to be assessed and addressed under the UK government's NCM programmes associated with later Phases. Management of issues where CPs are not integrated with a specific dwelling meter, via a landlord operated CP, for example, is also challenging.

ZEV mandate

- 3E.10 The UK Government has committed to introducing a zero-emission vehicle (ZEV) mandate from 1 January 2024. The regulation will set targets, requiring an increasing percentage of manufacturer's new car or van sales be zero emission each year. The aim of the ZEV mandate is to encourage the sale of increasing numbers of zero-emission vehicles and this projected increase forms the targets set for our transport sector within the Climate Action Plan.
- 3E.11 Ministerial agreement means the proposed zero emission vehicle (ZEV) mandate regulation is extended to Northern Ireland. Sales of ZEVs currently make up circa 7% of total new cars registered in Northern Ireland and the introduction of the ZEV mandate has the potential to accelerate the

⁹⁸ [Development of Electric Vehicles in Northern Ireland \(infrastructure-ni.gov.uk\)](https://infrastructure-ni.gov.uk/development-of-electric-vehicles-in-northern-ireland)

update of ZEVs by setting quotas for manufacturers that will be achieved through sales by car dealerships.

- 3E.12 The final consultation (2 out of 3 have been completed), on the zero-emission vehicle (ZEV) mandate and CO₂ emissions regulation for new cars and vans in the UK, carried out jointly alongside the UK government and the other devolved administrations, was published on Friday, 31 March and closed on Wed, 24 May.
- 3E.13 Following completion of the final consultation it is likely that legislation will have to be introduced to support the regulation on the ZEV mandate.

EV charging

- 3E.14 Convenience and availability of charging infrastructure are often seen as limiting factors that negatively impact an individual's decision to purchase an EV. It is therefore important that the scale of charging infrastructure installation matches that of EV uptake. Given, that in the region of 80% of properties in Northern Ireland have access to a driveway, charging an EV at home overnight will continue to provide the most convenient and cost-effective opportunity for most households. It is therefore likely that the bulk of charging in the future will be done at home. However, for those without access to a driveway, other options, such as workplace, leisure locations, communal charging hubs, and the local council provided On Street Residential Chargepoint Scheme⁹⁹, will be key to enable EV owners to charge their vehicles.
- 3E.15** Measures in other administrations laid out below go beyond the minimum requirements of the EPBD. The requirement to implement the EPBD into law gives us an opportunity to make sure EV provision is a part of new or renovated buildings and the previous Minister of Infrastructure, John O'Dowd, decided the best way to ensure this was to go above the minimum requirements, in line with counterparts in other administrations.

⁹⁹ <https://www.infrastructure-ni.gov.uk/news/funding-boost-electric-vehicle-charge-points-residential-areas-welcomed>

Table 3E.2 England and ROI policy measures

	CATEGORIES OF BUILDINGS	EPBD REQUIREMENTS	RoI MEASURES	UKG MEASURES for ENGLAND
1	New, non-residential buildings with more than 10 parking spaces	Art 8.2 – Installation of At least one CP; and Ducting infrastructure for at least one in every five parking spaces	Installation of: At least one CP; and Ducting infrastructure for at least one in every five parking spaces.	Installation of: One CP; and Ducting infrastructure for one in 5 parking spaces.
2	New residential buildings with more than 10 parking spaces	Art 8.5 – Installation of ducting infrastructure for every parking space	For all new multi-unit buildings (irrespective of the number of parking spaces), ducting infrastructure should be provided for every parking space.	A CP at each space up to one CP per dwelling; Infrastructure to every other space
3	New residential buildings with one or more parking spaces located within the building's curtilage.	N/A	EV recharging infrastructure should be provided for the future installation of an EV CP.	A CP at each space up to one CP per dwelling
4	Existing non-residential buildings undergoing major renovation with more than 10 parking spaces.	Art 8.2 – installation of At least one CP; and Ducting infrastructure for at least one in every five parking spaces.	Installation of At least one CP (accessible); and Ducting infrastructure for at least one in every 5 parking spaces.	Installation of One CP; and Ducting infrastructure for one in 5 parking spaces.
5	Existing non-residential buildings with more than 20 parking spaces.	Art 8.3 – require installation of a minimum number of recharging points by 01 January 2025.	N/A <i>This will be transposed under the RoI European Communities Act 1972. It is not yet clear what form this legislation will take.</i>	N/A <i>It is not open to apply this requirement through Building Regulations, as it applies to existing building parking spaces retrospectively. Article 8.3 is therefore outside the scope of this consultation.</i>
6	Existing residential buildings undergoing major renovation with more than 10 parking spaces.	Art 8.5 – installation of ducting infrastructure for every parking space.	For a multi-unit building (irrespective of the number of spaces) ducting infrastructure should be provided for every parking space.	Installation of A CP at each space up to one CP per dwelling; and Ducting infrastructure for each parking space.
7	Existing buildings undergoing material change of use to create one or more new dwellings.	N/A, however if there are more than 10 spaces and these situations include a 'major renovation', it would bring Art 8.5 into play	TBC – existing route to application by way of 'change of use' likely to apply.	At least one EV charging point per newly created dwelling with an associated parking space.

3E.16 Installation of EV charge points and the infrastructure for future installations, will support the shift to EVs over the next 10-15 years. The cost of retrofitting a building with charge points and infrastructure is significantly more expensive than installing these during the initial construction phase. Therefore, requiring the installation of charge points and ducting infrastructure in car parks for residential buildings during construction, or when major renovations are taking place, should significantly lower any associated costs. NIE Networks recently launched its RP7 business case¹⁰⁰ and proposes to reform expected capacities for

¹⁰⁰ <https://www.nienetworks.co.uk/rp7-business-plan>

developments, for example increasing the grid supply to a new single dwelling development from 12kW to 18kW, in part to facilitate EV charging.

Proposed route to implementation

- 3E.17 In keeping with the other administrations, it is proposed to use Building Regulations to legislate for the new EV infrastructure requirements here.
- 3E.18 England's legislation takes a highly prescriptive approach, with regulations citing a number of detailed conditions. To remain in keeping with the current format of our own regulations, we anticipate taking a functional approach (e.g. requiring 'adequate' or 'reasonable' provision for EV charging; see paragraph 2A.9), subject to legal advice. This should allow issues, such as any proposed cost cap or similar limitations, to be clarified through Technical Booklet guidance, so far as possible and in the normal manner. We note that Ireland and Scotland have legislated in this way¹⁰¹, but we expect to learn lessons from all administrations.
- 3E.19 The Department for Infrastructure will be creating a technical guidance document to work alongside these Building Regulations with relation to the EPBD requirements. The Technical Guidance will point to the Department for Infrastructure's *Parking Standards* Guidance¹⁰², as adherence to *Parking Standards* is expected to continue to be a requirement for planning applications.

Question 3E.1 Do you agree with the proposed approach to use Building Regulations to legislate for EV infrastructure requirements?

Proposed EV infrastructure requirements

- 3E.20 The Department of Infrastructure's current expectation is to seek outcomes that provide technical equivalence to the standards introduced in England under Part S (Infrastructure for charging electric vehicles) of its building regulations, as outlined below and in Section 4D (for non-domestic buildings).

¹⁰¹ See Standard 7.2 in [Building standards technical handbook June 2023: domestic - gov.scot \(www.gov.scot\)](https://www.gov.scot/publications/building-standards-technical-handbook-2023-06/pages/default.aspx)

¹⁰² [Parking Standards | Department for Infrastructure \(infrastructure-ni.gov.uk\)](https://www.infrastructure-ni.gov.uk/parking-standards)

3E.21 Further details can be found in England's Approved Document S (ADS) together with associated FAQs¹⁰³. You are encouraged to consider these documents and provide comment. The Department's understanding of what the proposals might entail is outlined below and in Section 4D, for non-domestic building situations.

Question 3E.2 Do you agree with the proposed approach to follow the technical provisions in England? The Department would be grateful for any comment on the guidance or out-workings there or in other regions.

Proposed EV infrastructure requirements in dwellings

Charge points

3E.22 Charge points should be smart capable and have a minimum of 7kW rating at supply voltage of 230V AC.

3E.23 Additional requirements, such as being of a minimum of a Mode 3 specialised system for electric vehicle charging running from a dedicated circuit, or equivalent, as defined in BS EN IEC 61851-1 and having a lit visual display are noted in Section 6 of ADS¹⁰⁴.

Requirements for new dwellings and dwellings undergoing a major renovation.

3E.24 **Requirement 1:** Parking spaces associated with new buildings containing one or more dwellings should be provided with whichever is the lesser of:

- one CP per dwelling, or
- one for each associated parking space provided within the site boundary.

Note- this requirement is beyond the requirements of the EPBD and is not applied in the Republic of Ireland.

¹⁰³ [Infrastructure for charging electric vehicles: Approved Document S - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/publications/infrastructure-for-charging-electric-vehicles-approved-document-s)

¹⁰⁴ See para 6.2 of [Infrastructure for charging electric vehicles: Approved Document S - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/publications/infrastructure-for-charging-electric-vehicles-approved-document-s)

Key terms from England's Approved Document S

Associated parking space Any parking space that is available within the site boundary of the building, for the use by the occupant of, or a visitor to, a dwelling in the building, including any parking space which is for the use of any occupant of, or any visitor to, any dwelling in a building containing more than one dwelling.

Boundary The boundary of the land and/or buildings belonging to and under the control of the building owner.

Connection cost The cost of upgrades needed to the electricity system in order to accommodate a charge point, excluding the cost of any building work or the cost of the charge point itself.

Site boundary The boundary of the land in relation to a building, in respect of which building work is being carried out, means the boundary of the land, upon which that building is situated, that is controlled or owned by the same person who owns:

- that building, or
- in the case of the erection of a new building, the land upon which building work is being carried out.

3E.25 **Requirement 2:** In addition, for those residential buildings with 11 or more parking spaces, cable routes to all additional associated parking spaces should also be provided. (i.e. ductwork to all spaces not provided with a CP).

Note- this requirement is applied in the Republic of Ireland to all parking spaces at new buildings containing one or more dwellings, irrespective of the number of spaces involved. ¹⁰⁵

Outcomes on typical sites

3E.26 We are using the term “associated parking spaces”, rather than limiting references strictly to spaces “in or physically adjacent to the building” as specified in the directive. Communal parking provision associated with a group of buildings or houses is “associated with the building” and within the “site boundary”, even if it is not necessarily within the plot of a specific building.

3E.27 We expect that on-street parking at public roads would not be “associated with the building” for the purposes of the requirements. This is an important

¹⁰⁵ See [Technical Guidance Document L- 2022 \(Conservation of fuel and energy\)](#)

distinction from the position in England, which we would expect to clarify further in any subsequent consultation.

Defining the site boundary

“The site boundary will be determined at the point of depositing a full plans application/building notice or submitting an initial notice. The parking space will be within the site boundary if, at this point in time, it is located on land that is owned or controlled by the same party that owns or controls the land on which the building is being built.

For example, if a single house is being built on a standalone plot then the site boundary is likely to be the boundary of the plot on which the house is located.

If a development of 10 houses is being built, then the site boundary for each of the houses is likely to be the boundary of the whole development.”

from [FAQs to England's Approved Document S](#)

- 3E.28 Flats are normally treated as a single building. If there are more than 10 parking spaces associated with the block of flats, then ductwork would have to be provided to any spaces not provided with a CP.
- 3E.29 However, each house can be treated as a building in its own right (even if attached to another house or building) for the purposes of the assessment for requirement 2 (ductwork). In addition to any in-curtilage spaces, communal spaces are allocated, on a pro-rata basis, to assess how many spaces are “associated” with each house. In almost all cases, it is unlikely that any individual house would have more than 10 spaces, with the result that additional ductwork should not be required on most housing led schemes.
- 3E.30 For example —
- in a development of 20 houses, where each house has one in-curtilage space, and 10 shared communal spaces are arranged around the site in off-street parking bays under the management of the development’s maintenance company; the 20 houses would necessitate provision of 20 CPs. In determining the numbers of associated parking spaces at any one building, the 10 communal spaces are allocated pro-rata to the 20 houses, ($10 / 20 = 0.5$ to each house). $0.5 \text{ communal} + 1 \text{ in-curtilage space} = 1.5 \text{ parking spaces per house}$. Since no one house has more than 10 spaces, further ductwork for future CPs is not required;

- in an equivalent development, where only 12 of the 20 houses had one in-curtilage space each and 18 communal spaces were shared; again 20 spaces (one per house) would still need to be provided with a CP because all 30 spaces are deemed to be within the site boundary. Whether spaces are within the individual dwelling plots is not relevant, although it would clearly be preferable for as many of the required CPs as possible to be connected to a house's electricity supply (this would provide a much cheaper running cost). As only 12 houses have in-curtilage parking, independent CP service provision to communal spaces would be needed to at least 8 of the communal spaces¹⁰⁶. Again, no ductwork would be required to the remaining spaces, as no one house is considered to have 11 or more spaces on completion of the work;
- a new apartment block with five flats and 12 communal parking spaces within the building's site boundary would require five CPs and ducting for the other seven spaces;
- three new separate apartment blocks of 3 flats each, built as a single development and sharing 15 spaces within the development's site boundary, would require 9 CPs (for the 9 flats), but ductwork would not be required to the 6 additional spaces as none of the individual buildings is deemed to be associated with 11 or more spaces. However, if the 9 flats were constructed as a single block and shared 15 spaces, ductwork would be required to the 6 parking spaces not provided with CPs, as all 15 spaces are associated with the building;
- if there are 25 dwellings, but only 17 parking spaces on a site, then a CP would be required to each of the 17 spaces.

3E.31 These examples illustrate how associating spaces with buildings can be quite a complex issue, which can get more complex if there are dwellings and buildings of different types in the development with different shared parking arrangements. In these circumstances allocation of the spaces to each particular building is expected and further guidance may be required (see England's FAQs to ADS for further examples).

3E.32 Where CPs are provided to communal parking there may also be issues around oversight of the CP service, as communal systems charge for their

¹⁰⁶ a community micro-grid arrangement might be another potential option, but this is not a normal arrangement and would require bespoke consideration.

services. Oversight arrangements and regulation of CP service providers is not a matter for Building Regulations.

3E.33 The following situations are worth considering—

- a) **CPs serving communal private parking within a building;** limitations apply to covered parking, for requirement 1 (provision of CPs) (see paragraph 3E.35), however future CP provision is intended within these spaces.
- b) surface (non-covered) private parking serving a building or group of houses (including off-street car parking on a private road); again, these are normally operated by building service management companies and oversight of any CP service would fall under their remit.

In these both cases, it seems unlikely that the benefits and interactions will impact individual dwellings' energy performance and they are unlikely to be connected to a resident's meter.

Question 3E.3 Do you agree that for new dwellings with associated parking spaces; one CP per dwelling or one per associated parking space (which ever is the lesser) should be required and that, in addition, for those buildings with more than ten associated parking spaces, ducting to the rest of the residential parking spaces to facilitate future installations, should also be required?

Exemptions for requirements for new dwellings (also applicable to major renovations)

3E.34 **Limitation 1-** As noted above, requirement 2 (provision of ductwork to every associated parking space) is limited to situations where the building would have (or, in the case of parking shared with another building, could be deemed to have) more than 10 associated parking spaces after the completion of the work.

3E.35 **Limitation 2-** The UK is currently researching fire safety for enclosed car parking. Until this research has been conducted and a way forward decided, the charge point requirements (requirement 1) do not apply to spaces in enclosed 'covered' car parks (e.g. basements, spaces below buildings, and multi-stories). Ducting requirements (requirement 2) should still be met. Where there are both covered and non-covered car parking

spaces within a site, the non-covered car parking spaces shall be provided with a CP to meet the minimum provision requirements set out earlier, so far as possible. Single dwelling garages and carports appear to be excluded from England's definition of covered car park¹⁰⁷, although DfI is of the opinion that CPs should not be installed in enclosed spaces.

- 3E.36 This dis-application of requirement to provide the CP in covered car parks applies to all building situations (new build, major renovations and material change of use) and all building types (residential, non-residential and mixed use).

Question 3E.4 Do you agree with the proposed limitations 1 and 2 (as outlined in paragraph 3E.34 and 3E.35) restricting the application of the requirements for EV infrastructure at parking spaces associated with new dwellings?

Additional grid connection cost cap (for new dwellings only)

- 3E.37 **Limitation 3**— In England, a limitation dis-applies the requirement where the installation of a CP would increase the grid connection costs by more than £3,600 per CP. The Department for Infrastructure is commencing work to assess what precisely would be included in any equivalent cost assessment here, taking local factors into account. (For example, grid reinforcement costs to developers' connection costs are applied differently here to GB). However, we are keen to gauge what additional connection cost (excluding the supply and fit cost of the CP itself), if any, would be an appropriate limit to apply. We note that Scotland's guidance sets the cap at £2000 per CP connection¹⁰⁸.
- 3E.38 The assessment should be purely related to additional network operator (NIE Networks) connection charges applicable solely for the EV CPs. We are aware this could be difficult to establish, depending on other aspects of the scheme concurrently impacting grid connection costs (e.g. the various on-site renewable generating technologies or heat pump based solutions that may be being explored by developers in consultation with NIEN). We would be keen to receive evidence on how successfully this is being

¹⁰⁷ Appendix A Key Terms of ADS defines a "Covered car park" as *Any car park which is enclosed by a roof, except garages or carports that are intended to be used solely by the occupant of, or a visitor to, a dwelling or carports that cover otherwise open parking spaces.*

¹⁰⁸ See section 7.2.1. of Scotland's [Technical Handbook - Domestic \(www.gov.scot\)](http://www.gov.scot).

assessed elsewhere, where evidence from the DNO is usually provided to support such exemptions. We are also aware of ongoing reviews and we expect to take account of any developments in future consultations.

3E.39 In cases where the cost exemption applied, the developer would still be expected to install as many CPs as possible up to the cost cap limit, and to provide the ductwork infrastructure for future installations to meet the normal requirements.

3E.40 England's regulations appear to apply the cost cap solely to new residential buildings, (defined in ADS as those containing solely dwellings). This could mean the cost cap may not be applicable to mixed use or other buildings or where a change of use or major renovation occurs, even if a new electrical connection is being provided. We will consider if extending any cost cap to these situations may be appropriate.

Question 3E.5 Do you think there should be a limitation to the application of the requirements, on the grounds of additional grid connection costs that may accrue to developers as a result of the provision of CPs?

Question 3E.6 If the answer to Q 3E.5 is yes, do you think the amount of £3600 (which is currently under review) is appropriate and do you have any comment on how it should be assessed?

Limitations for buildings containing one or more dwellings undergoing major renovation

3E.41 **Limitation 1-** 'Major renovation' under the EPBD and Building Regulations means the renovation of a building where more than 25 % of the surface of the building envelope undergoes renovation.

3E.42 **Limitation 2-** the major renovation must result in a building with more than 10 car parking spaces associated with it, for the requirements to apply. Unlike new builds, where this limitation applies solely to requirement 2, for major renovations it applies to both requirements. In effect this means that major renovation of an individual house is unlikely to ever invoke the EV infrastructure requirements under the proposed Building Regulations.

In RoI this limit is not applied; instead, ductwork has to be provided to all in-curtilage parking spaces, irrespective of the extent of the parking at the building. There is no requirement to provide an actual CP in RoI.

- 3E.43 **Limitation 3-** EV infrastructure requirements would only apply where the major renovation is accompanied by the renovation of the car park, its electrical infrastructure (if car park is within the site boundary of the building) or the building's electrical infrastructure (if the carpark is within the building)¹⁰⁹.
- 3E.44 **Limitation 4--** The requirement for CPs only applies so far as the capacity of the existing electricity supply can provide for them, without upgrading the supply to the building. This is a consistent approach across GB, as retrofitting is considered cost prohibitive, thus we are reticent to make costs more onerous. We would be interested in how this is being assessed elsewhere, given that electrification of heat or other interventions, such as provision of cooling, may also call upon the existing connection's supply capacity when major renovation works are under way.
- 3E.45 **Limitation 5-** The requirement is not applied where the cost of installation for EV charge points and ducting infrastructure exceeds 7% of the total cost of the major renovation. Ducting and CPs would still have to be installed in line with the normal requirements up to the point they can be accommodated within the overall 7% threshold.
- 3E.46 **Limitation 6-** where the major renovation is being carried out on residential properties with historical fire safety deficiencies (i.e. cladding remediation), the requirements need not be applied
- 3E.47 Major renovation work may be accompanied by a new electrical supply serving the building. We are interested on views as to whether "the capacity of the existing electricity supply" assessment should still be applied in this circumstance, or whether the cost cap should be applicable instead. It would not be the intention to require a new supply.

Question 3E.7 Do you agree that where a major renovation results in a residential building being associated with more than 10 parking spaces, then CPs should be provided at a rate of one per dwelling¹¹⁰, or one per associated parking space (whichever is the lesser) and that that ducting should be

¹⁰⁹ Note- it is proposed not to apply these requirements to car parks within buildings- ref paragraph 3E.35

¹¹⁰ this would apply to the existing dwellings- newly created dwellings would be addressed through the other routes ("new dwellings" or "a newly created dwelling by way of a material change of use").

installed in each associated car parking space, to support the future installation of an EV CP?

Question 3E.8 Do you agree with the proposed limitations to requirements in the case of major renovations, as outlined in paragraph 3E.41-3E.47?

Requirements where a material change of use which creates a new dwelling

- 3E.48 Parking associated with dwellings newly created by way of a material change of use would require the following—
- 3E.49 **Requirement:** a CP for every newly created dwelling or one for every parking space (whichever is the lesser) associated with the newly created dwellings.
- 3E.50 There is no explicit requirement in England's ADS guidance for additional spaces to be fitted with cable routes for further future provision of CPs, although this could be triggered if a major renovation accompanied the work.

Limitations applicable to a material change of use which creates a dwelling

- 3E.51 **Limitation 1-** The requirement to provide CPs would only apply to the newly created dwellings. There is no requirement to provide CPs for pre-existing dwellings in the building, unless the major renovation criteria apply.
- 3E.52 **Limitation 2-** The requirement would only apply where the change of use is accompanied by the renovation of the car park, its electrical infrastructure (if car park is within the site boundary of the building) or the building's electrical infrastructure (if the carpark is within the building).
- 3E.53 Given this limitation means that extensive work will be underway in the car park, we would be interested in views as to whether there should be an additional requirement for cable routes to any additional spaces associated with the newly created dwellings, if the building has more than 10 spaces after the material change of use. This would keep the proposal in line with the new-build assessment. It would not require EV provision for the pre-existing building (unless it was undergoing a major renovation).

- 3E.54 **Limitation 3** The provision of CPs would be limited by the capacity of the existing electricity supply. We would be interested in how this is being assessed elsewhere, given that electrification of heat or other interventions, such as provision of cooling, may also call upon the existing connection capacity.
- 3E.55 **Limitation 4-** As with all situations, the requirement to provide CPs would exclude covered parking spaces. (see paragraph 3E.35). Where there are covered spaces such that the CPs cannot be provided, ductwork provision for future installation of CPs would apply, in lieu.
- 3E.56 Building work carried out alongside a material change of use is normally assessed in parallel with the change of use requirements, with priority given to the requirements associated with the building work¹¹¹. In some cases the work may be accompanied by a new electrical supply servicing the newly created dwellings. We are interested on views as to whether “the capacity of the existing electricity supply” assessment should still be applied in this circumstance, or whether the cost cap should be applicable instead. It would not be the intention to ever require a new supply; the issue is solely where a new supply is being provided by the developer.

Question 3E.9 Do you agree that where a dwelling is created through a material change of use, a CP should be required at any parking space associated with the new dwelling?

Question 3E.10 Do you agree with the proposed limitations to the application of the requirement, where a newly created dwelling is established under a material change of use, as outlined in paragraph 3E.51-3E.55?

Question 3E.11 Should a cost cap apply, instead of limiting the number of CPs on the basis of the existing supply, where a new electrical supply connection to the building occurs alongside a major renovation, or a material change of use that creates a new dwelling?

Question 3E.12 Should there be a requirement for cable routes to all spaces associated with dwellings newly created by way of

¹¹¹ See regulation 8(4)(b) of the Building Regulations (Northern Ireland) 2012 (as amended).

a material change of use, in circumstances where a building has more than 10 parking spaces?

Note on historic buildings

3E.57 'Protected buildings' (listed buildings and buildings in conservation areas) are already subject to special consideration under the provisions of Article 3A of the Building Regulations Order. The EPBD provides additional explicit exemptions where the work would unacceptably alter the character and appearance of such buildings. This is in keeping with the similar exemptions already in place under Part F and it is proposed that application to any EV infrastructure provisions should be in line with developments on Part F (see paragraph 2A.42).

Other issues

3E.58 Other issues, such as spatial requirements, accessible parking bay layouts, routing for cabling, EV CP standards (including future bi-directional charging), building energy performance assessments and related issues, will require further assessment over time, either under Building Regulations' consultation or other DfI policy interventions. Many of these, such as bi-directional charging capability, will interact with energy and electricity policy in other areas (e.g. tariffs and smart meters). We would be keen to receive any evidence or comments you may have, particularly if supported with evidence following implementation or policy elsewhere.

Question 3E.13 Do you have any other views that you wish to provide on the EV section of the consultation (e.g. the minimum standard of EV charge point or safety and accessibility within the built environment)?