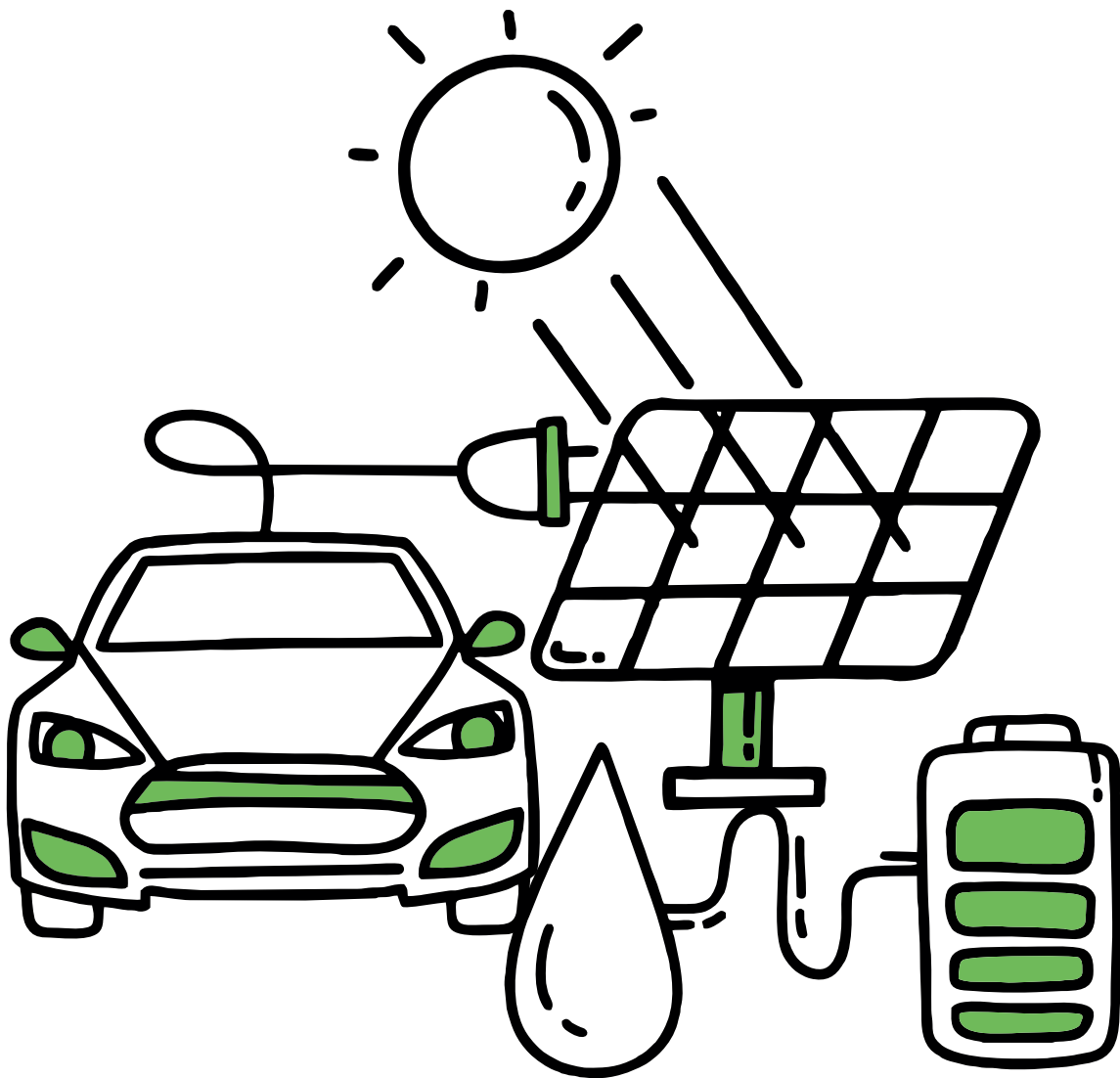


CLIMATE CHANGE GUIDANCE FOR DEVELOPMENT MANAGEMENT



Section 1 Introduction

The core purpose of planning is to create sustainable places that support the environment and human health and wellbeing.

Planning therefore has a vital role to play in shaping and enabling development that minimises carbon emissions and adapts to increasing temperatures to help tackle the Climate Change issue.

The council recognise this, and so are publishing this guidance note to introduce a new requirement that applicants of certain types of development should include certain types of infrastructure as part of their developments to help mitigate the impacts of climate change.

The types of infrastructure that the council expect applicants to deliver are:

Infrastructure type 1 -Solar Technology

The council recognises that it has a responsibility to contribute to energy generation from renewable and low carbon sources. To support this, this guidance requires applicants to include the provision of solar technology.

Infrastructure type 2 - Electric Vehicle (EV) Charging Points

The council are committed to encouraging a shift to more sustainable less carbon emitting forms of transport. To support this, this guidance requires applicants to demonstrate that development is supported by adequate infrastructure for charging electric vehicles.

Infrastructure type 3 - Rainwater Harvesting

Ashford Borough Council recognise that water is a finite resource essential for human health and wellbeing as well as the natural environment. This guidance therefore requires applicants to demonstrate that they can deliver facilities for rainwater harvesting.

Ashford Borough Council has always recognised the need to care about the environment, and effectively tackling the causes and effects of climate change in the way we plan new buildings is essential.

Consequently, this guidance note represents the first stage in the council's move to embed climate change requirements in our planning policies and decisions.

This guidance will act as a crucial component in the fight to tackle the impacts of climate change by helping to deliver more sustainable forms of development.

Purpose of the Document

The purpose of this Guidance Note is to provide applicants and decision makers with clarity as to what the council expect schemes for certain types of residential development to deliver.

The guidance note clearly sets out the council's objectives, and advises what evidence applicants must submit with their planning application to demonstrate that the infrastructure identified can be delivered.

Planning applications must be supported by an overarching 'Climate Mitigation Statement' to give the decision maker as much certainty as possible that development will comply with this guidance in an appropriate and proportionate way, that reflects the scale of the development proposed. The type of information and evidence to be provided is detailed within Section 3 of this guidance note under each of the infrastructure types identified.

The starting point should not be that this infrastructure cannot be provided. Applicants will be expected to demonstrate that they have thoroughly explored all options for its delivery. Applicants who conclude that they cannot deliver the infrastructure identified in accordance with this guidance, will be expected to demonstrate why, by submitting evidence that is robust and transparent. This evidence must include information to demonstrate how the proposed development seeks to reduce carbon emissions through other means, for example through a fabric first approach (i.e. optimized glazing, enhanced ventilation and insulation, low carbon heating systems and water efficient fixtures and fitting). This will meet the overarching aim of the guidance to tackle issues associated with climate change.

Who is this Guidance Note for?

This guidance applies to the following types of infrastructure across the whole of the Ashford Borough.

Infrastructure type 1 - Solar Technology

This applies to planning applications for:-

- New residential dwellings.
- Dwellings resulting from a material change of use.

Applicants proposing to carry out householder development involving the erection of an extension, outbuilding, a car port and/or a garage are encouraged to apply this guidance whether planning permission for the development is required or not.

Domestic solar panel systems typically have a capacity of between 1kW and 4kW. The council have previously issued guidance titled 'The development of Domestic and Medium Scale Solar PV arrays up to 50kW and Solar Thermal (Guidance Note 1)' dated 2013.

NB - Applicants are advised that this guidance note supersedes all sections on pages 8 to 17 of that document that relate to domestic scale solar PV <4kW.

Infrastructure type 2 - Electric Vehicle (EV) Charging Points

This applies to planning applications for:-

- New residential dwellings.
- Dwellings resulting from a material change of use.

Applicants proposing to carry out householder development involving the creation of new parking provision in the form of new hardstanding, a car port and/or a new garage are encouraged to apply this guidance, whether planning permission is required for the development or not.

Infrastructure type 3 - Rainwater Harvesting

This applies to planning applications for:-

- New residential dwellings.
- Dwellings resulting from a material change of use
- Householder development where the development includes the following:
 - The erection of an extension(s) to a dwelling house
 - The erection of a standalone annexe
 - The erection of a new outbuilding
 - The erection of a car port or garage

For the purpose of the remainder of the guidance the development listed above is referred to as 'qualifying development'.

Are the council's requirements an 'undue burden'?

The delivery of infrastructure for EV charging is already mandated through legislation under the Building Regulations.

As the requirements introduced through this this guidance note are consistent with the Building Regulations, the council do not consider that the requirements will result in any additional costs to the developer.

The council's aspirations for developers to install solar photovoltaics (PV) and facilities for rainwater harvesting could result in an additional cost to developers, although, the council is aware that many developers are already keen to incorporate measures to mitigate the impacts of climate change as developers recognise the importance of dealing with wider climate change issues and the desire from the market to live more sustainably.

However, given that dealing with the impacts of climate change is so important, and that the guidance adopts a flexible approach, in that it affords developers the opportunity to submit evidence to make a case if they are unable to comply with the guidance for viability reasons, the council considers that its requirements represent a reasonable and proportionate response to this important issue.

Section 2 Relevant Policy Context

The content of this guidance has been formulated to respond to the council's existing portfolio of Local Plan policies and align with its corporate objectives.

The Ashford Local Plan 2030

The council's Local Plan 2030 is cognisant of the need to consider climate change impacts and provides a strong framework for the delivery of sustainable development that is consistent with the National Planning Policy Framework (NPPF).

The Local Plan includes a number of planning policies which are relevant to this Guidance Note and which frame its contents.

'The Vision'

The Vision for the Borough includes adopting a positive approach to adapting to and mitigating against the effects of climate change. This will be secured by promoting sustainable transport, sustainable energy technologies and encouraging sustainable building design; avoiding development in areas at greatest risk of flooding; protecting and enhancing green networks; carefully considering the location, layouts and design of new housing; promoting sustainable drainage and challenging water efficiency standards.

Policy SP1 Strategic Objectives

Policy SP1 Strategic Objectives sets out the council's objectives to deliver 'The Vision'. Criterion (i) of Policy SP1 advances the climate change agenda, stating that 'planning applications' are expected *"to ensure new development is resilient to, and mitigates against the effects of climate change by reducing vulnerability to flooding, promoting development that minimises natural resource and energy use, reduces pollution and incorporates sustainable construction practices, including water efficiency measures"*.

In addition to the above, the Ashford Local Plan 2030, also contains several topic policies which relate to areas of planning associated with climate change. These include policies related to the promotion enhancement and protection of the natural environment including its biodiversity, landscape, water resources and opportunities for harnessing renewable energy, and policies related to the promotion of sustainable transport.

The council accept that the impacts associated with climate change will continue to shift and so the council's aim is to introduce new policies and/or guidance in due course that sets out how development is expected to respond to wider climate change issues. Further details of these will be published at the appropriate time.

The National Planning Policy Framework (NPPF)

Since its original publication in 2012, the NPPF has taken a relatively consistent approach to climate change requirements stating that "plans should take a proactive approach to mitigating and adapting to climate change taking into account the long-term implications for flood risk, coastal change, water supply, biodiversity and landscapes, and the rush of overheating from rising temperatures (footnote 53 applies)". Footnote 53 requires that this is undertaken in line with the objectives and provisions of the Climate Change Act 2008.

In addition to the above, the NPPF was amended in July 2021 to include reference to the United Nations Sustainable Development Goals. These include:

- Sustainable Cities and Communities - Making cities and human settlements inclusive, safe, resilient and sustainable; and
- Climate Action – Taking urgent action to combat climate change and its impacts.

Planning Practice Guidance

Planning Practice Guidance reinforces how important it is for local planning authorities to ensure that protecting the local environment is properly considered alongside the broader issues of protecting the global environment.

Planning Practice Guidance recognises that amongst other things, planning can help increase resilience to climate change impacts through the design of development amongst other things [Paragraph: 001 Reference ID: 6-001-20140306].

Related Requirements

Building Regulations have recently been updated to include several mandatory requirements which together with planning can help ensure that all new development minimises carbon emissions.

Changes to Building Regulation requirements include interim uplifts to Part L, Part F, and the introduction of Part O. Changes include the following:

- Approved Document L Conservation of fuel and power
 - Non -domestic buildings must achieve a 27% reduction in CO2 emissions
 - Domestic buildings must achieve a 30% reduction in CO2 emissions
- Approved Document F Ventilation
 - Amended and new requirements aimed at improving ventilation standards.
- Approved Document O Overheating
 - Amongst other things Part O seeks to minimise solar gain and remove excess heat, addresses the issue of orientation and introduces a standard for the maximum amount of glazing allowed in a single room.

In addition to the above, the government have also introduced Approved Document S, relating to infrastructure for charging electric vehicles.

Further Information

Further information explaining what the Government are doing nationally to tackle the issue of climate change is detailed in **Appendix 1**.

Appendix 2 provides a summary of what the council are doing corporately to help mitigate the impacts of climate change at a local level.

Section 3 Infrastructure Types

Infrastructure Type 1 – Solar Photovoltaics (PV)

What do the council want to see?

The council's objective is to significantly increase the amount of energy generated from renewable and low carbon technologies, particularly for major residential development that involves 10 or more dwellings.

In order to deliver the overriding objective the council expect qualifying development to demonstrate that prior to the occupation of any new dwelling, that dwelling is served by:

- a) A solar PV system(s) that generates approximately 50% of the yearly average energy consumption, or, an alternative amount agreed with the council having regard to the evidence submitted
- b) Infrastructure that is using the most efficient and up to date technology, as feasible.
- c) Infrastructure that can be delivered in a manner that is sympathetic to the character of the surrounding environment.

The basis for encouraging applicants to install solar PV as a means to generate renewable energy, is enshrined in the national policy guidance and Local Plan policies referenced in **Appendix 3** of this guidance note.

Alternative technologies may be suitable, for example community wind turbines, however, the council will consider alternative proposals on a case by case basis.

What information is needed to support my application?

The applicant's 'Climate Mitigation Statement' provided in support of the planning application should include the following information:

- a. The scale of the proposed installation for example the amount of panels proposed to be provided per dwelling and confirmation of the amount of energy the installation will generate.
- b. If the amount of energy generated is less than 50% of the dwellings yearly average energy consumption, evidence to demonstrate why the development cannot reach the target encouraged in accordance with this guidance.
- c. Confirmation of the technology being used, and if it is not the most efficient and up to date technology the reasons why not.
- d. Details of the appearance of the solar PV panels.
- e. Elevations (for both roof and ground mounted arrays)
- f. For systems fixed or integrated into roof coverings, a roof plan identifying the location of the proposed system.
- g. For free standing ground-mounted systems, a block plan.
- h. Details of future maintenance.

What information is needed at outline stage?

'Climate Mitigation Statements' are also required to be submitted with outline or hybrid planning applications.

However, it is accepted that given the nature of an outline application, the Statement might contain less detail.

The minimum any Statement must set out, is confirmation that solar PV will be provided and a commitment that when reserved matters are submitted they will be accompanied with the requisite level of detail specified at (a) to (h) above.

What are the exceptions to the requirements set out above?

The starting point, in most cases, should be that Solar PV is to be provided. Applicants will be expected to demonstrate that they have thoroughly explored all options for providing solar PV.

Where applicants conclude that solar PV cannot be delivered in accordance with this guidance, the applicant will be expected to produce robust and transparent evidence justifying why. These reasons will normally relate to issues surrounding feasibility or the practicality of delivery, or a combination of these factors. The council also recognises that in some locations for example areas that are inherently more sensitive such as conservations areas or Areas of Outstanding Natural Beauty (AONB), it may not be appropriate to support the installation of solar PV – i.e. the preservation or enhancement of the character of that area and/or the value of the landscape override the desire/benefits of installing solar PV.

When an application for development is submitted that affects a Listed Building, its setting, a conservation area or an AONB, council officers will assess whether complying with the requirements of this guidance is reasonably practicable. Applications will be assessed on a case by case basis.

Historic England have provided comprehensive advice relating to the most appropriate and sensitive way to install solar PV panels on a historic building or within their setting.

Applicants, for qualifying development that affects Listed Buildings or their setting, must demonstrate that they have had regard to Historic England's guidance which can be [viewed here](#).

Irrespective of the reasons, applicants who do not intend to deliver solar PV, will be expected to demonstrate within their evidence how the proposed development seeks to reduce carbon emissions through other means, for example through a fabric first approach (i.e. optimized glazing, enhanced ventilation and insulation, low carbon heating systems and water efficient fixtures and fittings).

Planning conditions

Planning conditions will be applied to planning permissions for qualifying development that includes solar PV to ensure that it is delivered in accordance with the approved details. Some example conditions are provided in **Appendix 3**.

Useful Information

Delivering development that is of a high quality design and is sustainable is a key council priority.

Appendix 3 of this guidance note details the issues around design and future maintenance that applicants need to take into account when delivering Solar PV within a scheme.

Certain types of development are granted planning permission by national legislation without the need to submit a planning application. This is known as 'Permitted Development'. In many cases fixing solar panels to the existing roof of a domestic property and/or within its curtilage, is likely to be considered 'permitted development'. **Appendix 3** provides applicants with guidance to help determine if and when planning permission is required for solar panels.

Infrastructure Type 2 – Electrical Vehicle Charging Points for New Residential Development

What do the council want to see?

The council are seeking to significantly increase the supply of EV charging points across the borough. The council's intention is to ensure that it delivers a well-designed, accessible and sustainable network of new electric vehicle charging points to encourage a shift towards more energy efficient vehicles. The council's overarching aim is to ensure that in future, qualifying development will have at least one EV charging point.

The council's parking standards are set out in Policy TRA3(a) of the Local Plan 2030 (see below). As set out in Policy TRA3(a) residential development within the borough shall follow the design, layout and accessibility guidance contained within the council's Residential Parking and Design Guidance SPD. Policy TRA3(a) and the Residential Parking and Design Guidance SPD provide an opportunity to increase EV charging capacity.

The council's objective is to deliver residential parking that meets the requirements set out in Policy TRA3(a) of the Local Plan 2030 and in doing so, ensure that adequate provision for EV charging is integrated into the design/layout.

In order to deliver the overriding objective the council expect qualifying development to demonstrate that:

- The development will be supported by adequate infrastructure to support EV charging – as a minimum development must comply with the mandatory requirements set out in the Building Regulations – i.e. one EV charging point shall be provided per residential dwelling.
- Infrastructure is installed using the most efficient and up to date technology.
- Infrastructure can be delivered in a manner that is sympathetic to the character of the surrounding environment.

The basis for encouraging applicants to install infrastructure for EV charging is enshrined in the legislation, national policy guidance and Local Plan policies referenced in Appendix 4 of this guidance note.

What information is needed to support my application?

The applicants 'Climate Mitigation Statement' provided in support of the planning application should include the following information:

- a. How many new EV charging points are to be delivered by the proposal, and its consistency with the council's overarching objectives set out above and the requirements set out in the related sections of Approved Document S of the Building Regulations.
- b. Confirmation of the technology being used, and if it is not the most efficient and up to date technology (i.e. SMART) the reasons why not.
- c. Details of the type of power supply to be provided (i.e. standard, fast, rapid) – see below.
- d. Details of the scale and appearance of any infrastructure above ground for example plugs, sockets and/or charging unit - applicants are advised that irrespective of the scale of the qualifying development, the council will expect all charging points to be fitted with a Type 2 plug as a minimum.
- e. A layout plan and/or map identifying the following:
 - The location of vehicle parking spaces and/or bays, and
 - The position of charging equipment and associated infrastructure for example ducting/cable routes.
- f. Where applicable, details of future management (see further below).

What information is needed at outline stage?

'Climate Mitigation Statements' are required to be submitted with outline or hybrid planning applications. However, it is accepted that given the nature of an outline application, the Statement might contain less detail, for example it might not include detailed layout information or detail of the scale and appearance of any infrastructure above ground.

However, the minimum any Statement must set out is an indication on a layout map where and how many EV charging points shall be provided, and a commitment that when reserved matters are submitted they will be accompanied with the requisite level of detail to support that application to be consistent with the details of this guidance.

What are the exceptions to the requirements set out above?

The starting point, in most cases, should be that infrastructure for EV charging will be provided. Applicants will be expected to demonstrate that they have thoroughly explored all options for providing infrastructure for EV charging.

Where applicants conclude that infrastructure for EV charging cannot be delivered in accordance with this guidance, the applicant will be expected to produce evidence justifying why. These reasons will normally relate to issues surrounding viability (see Approved Document S), feasibility or the practicality of delivery, or a combination of these factors.

The evidence submitted must include information to demonstrate how the proposed development seeks to reduce carbon emissions through other means, for example through a fabric first approach (i.e. optimized glazing, enhanced ventilation and insulation, low carbon heating systems).

Approved Document S of the Building Regulations is designed to stop the installation of EV chargers being prohibitively expensive. It therefore includes a £3,600 price cap, meaning each EV charger should not cost more than an average of £3,600 per charge point. If the cost is set to exceed this on a dwelling, then cable routes for charge points must be installed in the associated parking spaces, albeit the same £3,600 cap applies.

In accordance with Building Regulations Approved Document S to show that the connection cost is greater than £3,600 at least two formal quotes should be submitted with the planning application as follows:

- a) At least one quote should be from a distribution network operator.
- b) Quotes should clearly show all of the following.
 - i. The total connection costs for electrical infrastructure without electric vehicle charge points for all dwellings, as an average cost per dwelling.
 - ii. The total connection costs with electric vehicle charge points for all dwellings, as an average cost per dwelling.
 - iii. The average additional connection costs per electric vehicle charge point per dwelling if electric vehicle charge points are installed for all dwellings with associated parking spaces.
 - iv. The maximum number of electric vehicle charge points that can be installed before the extra grid connections costs exceed £3,600 per charge point per dwelling.

Approved Document S states that the following building types, when undergoing a material change of use, are exempt from complying with the requirements of the EV charge point installation regulations if compliance would unacceptably affect the significance of the building or its surroundings.

- a. Those listed in accordance with section 1 of the Planning (Listed Buildings and Conservation Areas) Act 1990.
- b. Those in a conservation area designated in accordance with section 69 of the Planning (Listed Buildings and Conservation Areas) Act 1990.
- c. Those included in the schedule of monuments maintained under section 1 of the Ancient Monuments and Archaeological Areas Act 1979.

When an application for qualifying development is submitted that affects a Listed Building, its setting or a conservation area, the council's conservation officer may be asked to assess whether complying with the requirements of the electric vehicle charge point installation regulations is reasonably practicable. Applications will be assessed on a case by case basis.

Planning conditions

Planning conditions will be applied to planning permissions for qualifying development that include infrastructure for EV charging to ensure that it is delivered in accordance with the approved details. Some example conditions are provided in **Appendix 4**.

Useful information

Delivering development that is of a high quality design and is sustainable is a key council priority.

Appendix 4 of this guidance note details the issues around design, accessibility, signage and future maintenance that applicants need to take into account when delivering infrastructure for EV charging within a scheme.

Appendix 4 also provides advice and information with regard to the type of infrastructure and technology available.

Infrastructure Type 3 - Rainwater Harvesting

What do the council want to see?

The council are seeking to ensure that development is water efficient in order to reduce pressure on water supply and ensure that water is being used more sustainably.

The council's objective, is to ensure that qualifying development includes the provision of appropriate facilities to harvest rainwater.

In order to deliver the objective qualifying development should demonstrate that it can facilitate the provision of at least one water butt – i.e. one water butt per new dwelling, extension, outbuilding, car port or garage.

The basis for encouraging applicants to install facilities for rainwater harvesting is enshrined in the legislation, national policy guidance and Local Plan policies referenced in **Appendix 5** of this guidance note.

What information is needed to support my planning application?

The applicants 'Climate Mitigation Statement' provided in support of the planning application should set out:

- a. Details of the type, size, capacity and number of water butts to be provided.
- b. A layout plan and/or map identifying the following:
 - The location of the system ensuring sufficient space is provided to enable it to be delivered.
 - Points of connection with downpipes.

Applicants who choose to install alternative rainwater harvesting systems should set out:

- a. Details of the type of system, its size, capacity and appearance.
- b. A layout plan and/or map identifying the following:
 - The location of the system ensuring sufficient space is provided to enable it to be delivered.
 - Points of connection with downpipes.
- c. In the case of a system that is powered, detailed technical specifications should be provided.
- d. Details of any associated infrastructure such as external sockets and/or control panels.
- e. Details of the position of any underground pipework/cable routes.

What information is needed at outline stage?

'Climate Mitigation Statements' are required to be submitted with outline planning and hybrid applications. However, it is accepted that given the nature of an outline application, the Statement might contain less detail.

The minimum any Statement must set out is confirmation of the type of rainwater harvesting system to be provided and a commitment that when reserved matters are submitted they will be accompanied with the requisite level of detail to support that application to be consistent with the details of this guidance.

What are the exceptions to the requirements set out above?

The council expect all qualifying development to provide at least one water butt. For example one water butt per new dwelling, extension, outbuilding, car port or garage.

Planning conditions

Planning conditions will be applied to planning permissions for qualifying development that include rainwater harvesting facilities to ensure that the facilities are delivered in accordance with the approved details. Some example conditions are provided in **Appendix 5**.

Useful information

Delivering development that is of a high quality design and is sustainable is a key council priority.

Appendix 5 of this guidance note details the issues around design that applicants need to take into account when delivering facilities for rainwater harvesting.

Appendix 5 also provides advice and information with regard to the type of rainwater harvesting facilities available.

APPENDIX 1 - The National Response to Climate Change

The significance of Climate Change is reflected in the breadth of material associated with the delivery of the Government's agenda to tackle the issue. This includes legislation, policy, guidance and various strategies.

The Climate Change Act 2008 (amended in 2019) requires a 100% reduction in greenhouse gas emissions by 2050 (compared to 1990 levels). This is known as the net zero target.

In December 2020 the Independent Climate Change Committee (ICCC) published the 'Sixth Carbon Budget (SCB) - The UK's path to Net Zero'. The ICCC recognised that the SCB could only be achieved if 'Government, regional agencies and local authorities work seamlessly together'. The SCB, which was adopted by Government in June 2021 set a more ambitious target for the UK reduction in greenhouse gas emissions, which this council endorsed in May 2021. This latest target, and current legislative requirement, stipulates that the UK shall achieve a 78% reduction in UK territorial emissions by 2035 compared to 1990 levels. In effect, bringing forward the UK's previous 80% target by nearly 15 years.

Following the update to the NPPF in July 2021, on the 19th October 2021 the Government published its Net Zero Strategy: Building Back Greener and its Heat and Buildings Strategy. These documents contain a broad range of commitments including ensuring the reformed planning system supports efforts to combat climate change, a commitment to review the NPPF, and the introduction of Building Regulations interim Future Homes and Buildings Standards. Later on 29th October 2021, the Housing, Communities and Local Government Select Committee issued a report following its inquiry into local government and the path to net zero. The Government response to this, published on 13th January 2022 commits to accelerating the legislation to introduce the full Future Homes Standard in 2024 as opposed to 2025.

Around about the same time, The Royal Town Planning Institute and Town and Country Planning Association published 'The Climate Crisis – A Guide for Local Authorities on Planning for Climate Change' (October 2021). The guide is intended as an introduction to some of the key issues associated with tackling the climate crisis.

Earlier this year, (17th January 2022) the Government published the UK Climate Change Risk Assessment 2022 which identifies that even under low warming scenarios the UK will be subject to a range of significant and costly impacts unless significant further action is taken now. The assessment states that 'evidence shows that we must do more to build climate change into any decisions that have long-term effects, such as in new housing or infrastructure, to avoid often costly remedial actions in the future'.

On 2nd February 2022, the Government published its Levelling Up White Paper which supports the decarbonisation agenda and recognises changes to the planning system are needed to support the transition to net zero.

Ashford Borough Council recognise that it is important to act locally as well as nationally and globally. The council therefore accept it has an important part to play in helping to tackling climate change, and are aware of the urgency and challenges associated with this responsibility.

APPENDIX 2 - The Council's Response to Climate Change

Based on Tyndale analysis, for Ashford to make its 'fair' contribution towards the Paris Climate Change Agreement, the following should be noted:

- Ashford's carbon budget of cumulative carbon dioxide emissions is 4.1 million tonnes (MtCO₂) for the period of 2020 to 2100. At 2017 CO₂ emission levels, Ashford would use this entire budget within 7 years from 2020.
- To deliver a Paris aligned carbon budget, an immediate programme of CO₂ mitigation to deliver cuts in emissions averaging a minimum of -13.7% per year is required. These are not solely in the councils gift to deliver, as annual reductions in emissions require national and local action, however, the councils community leadership role and standards can go a long way to enable this and deliver necessary behaviour change.

Ashford is the largest borough in Kent and as a consequence of its former designation as a strategic growth area for the South East of England (Sustainable Communities Plan July 2003), Ashford town in particular has seen significant growth in recent years.

According to data from the Office of National Statistics in Ashford the population size has increased by 12.5% from around 118,000 in 2011 to 132,700 in 2021. This is higher than the overall increase for England where the population grew by nearly 3.5 million to 56,489,800 (6.6%).

Given its fast-growing population, the pressure to develop in Ashford Borough is set to continue. The recently adopted Ashford Local Plan 2030 (February 2019) identifies a housing target of 13,118 new dwellings to be delivered in the borough in the period 2018 to 2030, together with a target of approximately 11,000 new jobs.

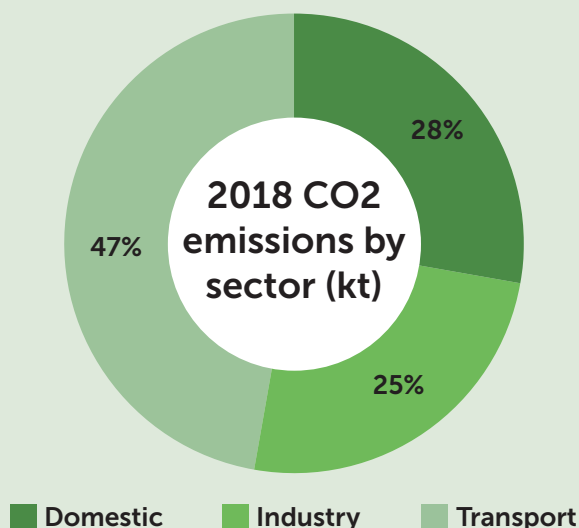
Regarding the impact of future growth on Climate Change, according to BEIS data, in 2018 the borough's total carbon emissions was 598.6 ktCO₂¹. The pie chart in Figure 1 below shows how different sectors make up this total. It should be noted that 70.2 ktCO₂ is absorbed by land use such as forests, cropland and grassland.

It is therefore essential that the council act to reduce the output of CO₂ emissions.

At present, the councils ambition is to achieve a target of net zero carbon emissions by 2030 for the council's own estate and operations. For the rest of the borough, the council are committed to working with residents, business, statutory and voluntary organisations to deliver significant reductions in carbon emissions across the borough as rapidly as possible, reaching net zero by 2050 in line with current legislation.

This commitment means that there is a requirement for urgent and immediate action and planning can help by ensuring that new residential development of the types identified seek to minimise carbon emissions.

Figure 1 Emissions by Sector



¹Ashford to Zero Plan – Consultation Draft 2021

APPENDIX 3 – SOLAR PHOTOVOLTAIC (PV)

Solar photovoltaic (PV) panels generate electricity when exposed to sunlight. They are the most appropriate form of renewable energy generation for a building as they are a simple and durable technology and can be installed on both roofs, suitable facades and can also be ground mounted.

National and Local Policy Context

Electricity demand is increasing, and the UK needs to decarbonise its power supplies in parallel with keeping up with this increasing demand. The provision of renewable energy within new development, such as solar, can make a vital contribution. It also provides benefits to occupants such as cheap energy and the ability to charge electric vehicles.

The NPPF confirms the government's commitment to sustainable development with one of the core planning principles being to:

"support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change. It should help to: shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings; and support renewable and low carbon energy and associated infrastructure".

Further detailed guidance is available in Planning Practice Guidance for renewable and low carbon energy.

Increasing the amount of energy from renewable and low carbon technologies will help to make sure the UK has a secure energy supply, reduce greenhouse gas emissions to slow down climate change and stimulate investment in new jobs and businesses. Planning has an important role in the delivery of new renewable and low carbon energy infrastructure in locations where the local environmental impact is acceptable.

At a local level the Ashford Local Plan 2030 includes policy ENV10 'Renewable and Low Carbon Energy'. The policy is a permissive policy that sets out how proposals for renewable and low carbon energy generation will be considered.

In addition, the council has established Renewable Energy Planning Guidance Notes 1 and 2 that have been approved by Cabinet. The guidance notes dated 2013 and titled 'The development of Domestic and Medium Scale Solar PV arrays up to 50kW and Solar Thermal (Guidance Note 1)' and 'The development of large scale (>50kW) Solar PV arrays (Guidance Note 2)' can be [viewed here](#) on the council's website.

With regard to 'The development of Domestic and Medium Scale Solar PV arrays up to 50kW and Solar Thermal (Guidance Note 1)', applicants are advised that this guidance note supersedes all sections on pages 8 to 17 of that document that relate to domestic scale solar PV <4kW.

What issues around design does an applicant need to take into account?

System Options

There are a number of options for installing a PV array:

- Fixed over the roof covering.
- Integrated into the roof covering.
- Free-standing ground-mounted, set away from the building.

In addition to the array, there are also options for the way the electrical energy generated is used or stored:

- Stand-alone - Uses battery storage, usually in remote locations where all the energy is used locally.
- Grid-connected - Either with or without battery storage, to maximise self-consumption and reduce export to the grid.

Orientation

Solar PV systems should be considered at the very earliest of design stages. The design and orientation of new residential buildings and residential extensions should be undertaken in a manner which, where possible, optimises the southerly orientation.

Location

Consideration should be given to shading, for example, applicants should consider the proximity of existing and future trees, as shading will affect performance.

Appearance

The effect of any solar installation on the character and appearance of the building and the wider locality should be carefully considered.

Installations should be designed to minimise their visual impact and in a way which responds to the form, proportions, and architectural detail of the recipient building or nearby buildings. This may include the following:

- Integrating solar PV's into the roof covering (see Figures 2 and 3).
- Designing solar installations to complement existing windows and roof lights.
- Introducing a parapet to screen panels installed on flat roofs.
- Choosing a colour and/or design that blends with building materials and surrounding landscapes such as a non-shiny anti-glare options that would be less conspicuous in the wider landscape.
- Installing arrays on outbuildings or extensions in order to minimise the impact on the principle/ host building.
- Generally avoiding designs which may appear disproportionate and unbalanced.

Figure 2



Figure 3



Future Management

Solar PV systems, like all electrical equipment, require regular maintenance to ensure continued and safe operation.

The applicant should include details of a maintenance schedule. This should detail how often equipment would need routine maintenance to ensure that it continues to function at full capacity. Maintenance regimes will vary depending on the size, type and location of the system and this should be reflected in the submitted maintenance schedule.

The operational life span of a solar PV array is around 25 years. Once the solar PV array ceases to produce energy, it is important that it is removed and disposed of in a manner that is appropriate in order to safeguard visual amenity.

Model Planning Conditions

Prior to the first occupation of the dwelling, solar PV panels shall be installed on the [*roof or wall*] of the building in accordance with the approved details. The solar PV panels shall thereafter be maintained in accordance with [*document title / date*] and shall be retained in a working order.

Reason: In order to take account of the impact of development on climate change and to assist a shift towards the use of sustainable energy.

When the solar PV panels cease to produce energy all materials and equipment associated with the solar PV installation shall be removed from the site and the [roof or wall*] shall be restored to a reasonable condition.

Reason: To protect the visual amenity and character of the area.

Householder permitted development rights for Solar Panels

Certain types of development are granted planning permission by national legislation without the need to submit a planning application. This is known as 'Permitted Development'.

The Town and Country Planning (General Permitted Development) (England) Order 2015 (as amended) contains permitted development rights for renewable energy. Permitted Development Rights for solar PV are laid out in Schedule 2 Part 14 Classes A and B of said legislation. The legislation is summarised in the Table 1 and Table 2 below:

Table 1 Class A The installation or alteration of solar equipment on domestic premises

Class A - The following development is permitted under Class A:
The installation, alteration or replacement of microgeneration solar PV or solar thermal equipment on:
<ul style="list-style-type: none"> • a dwellinghouse or a block of flats; or • a building situated within the curtilage of a dwellinghouse or a block of flats (i.e. a garage or shed).
<i>Development is only permitted provided:</i>
<ul style="list-style-type: none"> • the solar PV or solar thermal equipment would not protrude more than 0.2 metres (200mm) beyond the surface of the wall or the roof slope • the solar PV or solar thermal equipment would not exceed the highest part of the roof (excluding any chimney) • In the case of land within a conservation area or which is a World Heritage Site, the solar PV or solar thermal equipment would not be installed on a wall which fronts a highway; • the solar PV or solar thermal equipment would not be installed on a site designated as a scheduled monument; • the solar PV or solar thermal equipment would not be installed on a building within the curtilage of the dwellinghouse or block of flats that are designated as a listed building.
Development permitted under Class A is only permitted provided the following conditions are met:
<ul style="list-style-type: none"> • Equipment on a building should be sited, so far as is practicable, to minimise the effect on the external appearance of the building and the amenity of the area. • When no longer needed equipment should be removed as soon as reasonably practicable.

Table 2 Class B The installation or alteration of stand-alone solar equipment on domestic premises

Class B - The following development is permitted under Class A:
The installation, alteration or replacement of stand-alone solar for microgeneration within:
<ul style="list-style-type: none">• the curtilage of a dwellinghouse; or• the curtilage of a block of flats
Development is only permitted provided:
<ul style="list-style-type: none">• the installation of the stand-alone solar would not result in the presence;• within the curtilage of more than 1 stand-alone solar;• no part of the stand-alone solar would exceed 4 metres in height;• in the case of land within a conservation area or which is a World Heritage Site the stand-alone solar; the stand-alone solar would not be nearer to any highway bounding the curtilage than the part of the dwellinghouse or block of flats which is nearest to that highway;• the stand-alone solar would not be within 5 metres of the boundary of the curtilage;• the stand-alone solar would not be within the curtilage of a listed building or on a site designated as a scheduled monument;• the surface area of the solar panels forming part of the stand-alone solar would not exceed 9 square metres or any dimension of its array (including any housing) would exceed 3 metres.
Development permitted under Class B is only permitted provided the following conditions are met:
<ul style="list-style-type: none">• Equipment on a building should be sited, so far as is practicable, to minimise the effect on the external appearance of the building and the amenity of the area.• When no longer needed equipment should be removed as soon as reasonably practicable.

APPENDIX 4 – ELECTRICAL VEHICLE CHARGING POINTS FOR NEW RESIDENTIAL DEVELOPMENT

National and Local Policy Context

In November 2020 the Government announced plans to accelerate a greener transport future by ending the sale of new petrol and diesel cars in the UK by 2030.

The Government intend to facilitate this via a 2 phased approach. Phase 1 will see the phase-out date for the sale of new petrol and diesel cars and vans brought forward to 2030. Phase 2 requires all new cars and vans to be fully zero emission at the tailpipe from 2035.

The provision of infrastructure for charging electric vehicles will be critical to support these aims.

In assessing specific applications for development, paragraph 110 the NPPF requires appropriate opportunities to promote sustainable transport modes, given the type of development and its location. Paragraph 112 requires new development to be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.

In January 2022 the Government adopted amendments to Building Regulations, to set out the requirement for new development to include EV provision. The amendments in Part S of Schedule 1 to the Building Regulations 2010 came into force in June 2022.

The mandatory requirements set by Building Regulations are reflected in the guidance in this document.

In accordance with Building Regulations Approved Document S 'Infrastructure for the charging of electric vehicles', the minimum requirement for EV charging points is summarised as follows:

- For new residential development where non-covered parking is provided within the site boundary, one EV charging point per residential dwelling shall be provided.
- Where there are fewer parking spaces than there are dwellings, all of the parking spaces must include an EV charging point.
- The number of electric vehicle charge points that must be installed is the maximum number of electric vehicle charge points that it is possible to install at an average sum of £3600 or less for the connection cost of each electric vehicle charge point connection ("the £3600 cap").
- Where the number of parking spaces is both in excess of 10 spaces and the number of dwellings then safe cable routes must be provided to all spaces that are not EV charging points.

At a local level, the Ashford Local Plan 2030 contains policies aimed at promoting sustainable modal shifts including Policy TRA4 'Promoting the Local Bus Network' and Policy TRA6. The Local Plan also includes Policy ENV12 'Air Quality' which seeks to ensure that major development proposals promote a shift to the use of sustainable low emission transport to minimise the impact of vehicle emissions on air quality.

In addition to the Local Plan, Priority 4 of the council's 'Ashford to Zero Plan' focusses on encouraging and enabling a shift towards cleaner modes of transport and reducing car dependency. The Ashford to Zero Plan identifies that the council will lead by example and implement a corporate approach to the installation and maintenance of EV charging points.

The roll out to increase the provision of EV chargers in the borough began in May this year (2022). Once the programme is complete a total of 88 parking spaces will be available for vehicle charging covering 14 different locations, primarily within Ashford and Tenterden town centres.

²Non covered parking includes garages and car ports – i.e. these are not considered to be covered parking for the purposes of the Regulations.

What issues around design and layout does an applicant need to take into account?

Designing for major residential development

For the purpose of this guidance, major residential development is development that proposes to deliver ten or more dwellings.

Designing for private driveways

Private driveways must be designed with sufficient space to provide EV charging points and ensure pedestrians and bicycles have adequate space to access the property.

EV charging points must be conveniently located and capable of being accessed safely, for example to minimise the risk of tripping from cables.

For schemes that include car barns, applicants are encouraged to provide EV charging points inside the car barn wherever possible to help minimise their visual impact.

Figures 4 and 5 Represent examples of safe and accessible EV Charging points installed on private driveways.



Designing for communal car parking areas

Car parks for communal use should be designed so that once spaces have been designated, EV charging points can be installed at the edge of a footway or bay where they can be easily and safely accessed.

EV charging points should be located where they can serve as many of the adjacent bays as possible. Developers should ensure that spaces are wide enough to aid usability of EV charge points (including those spaces equipped with passive provision for future use). Bays will need to be longer if the EV charge point is located within the bay.

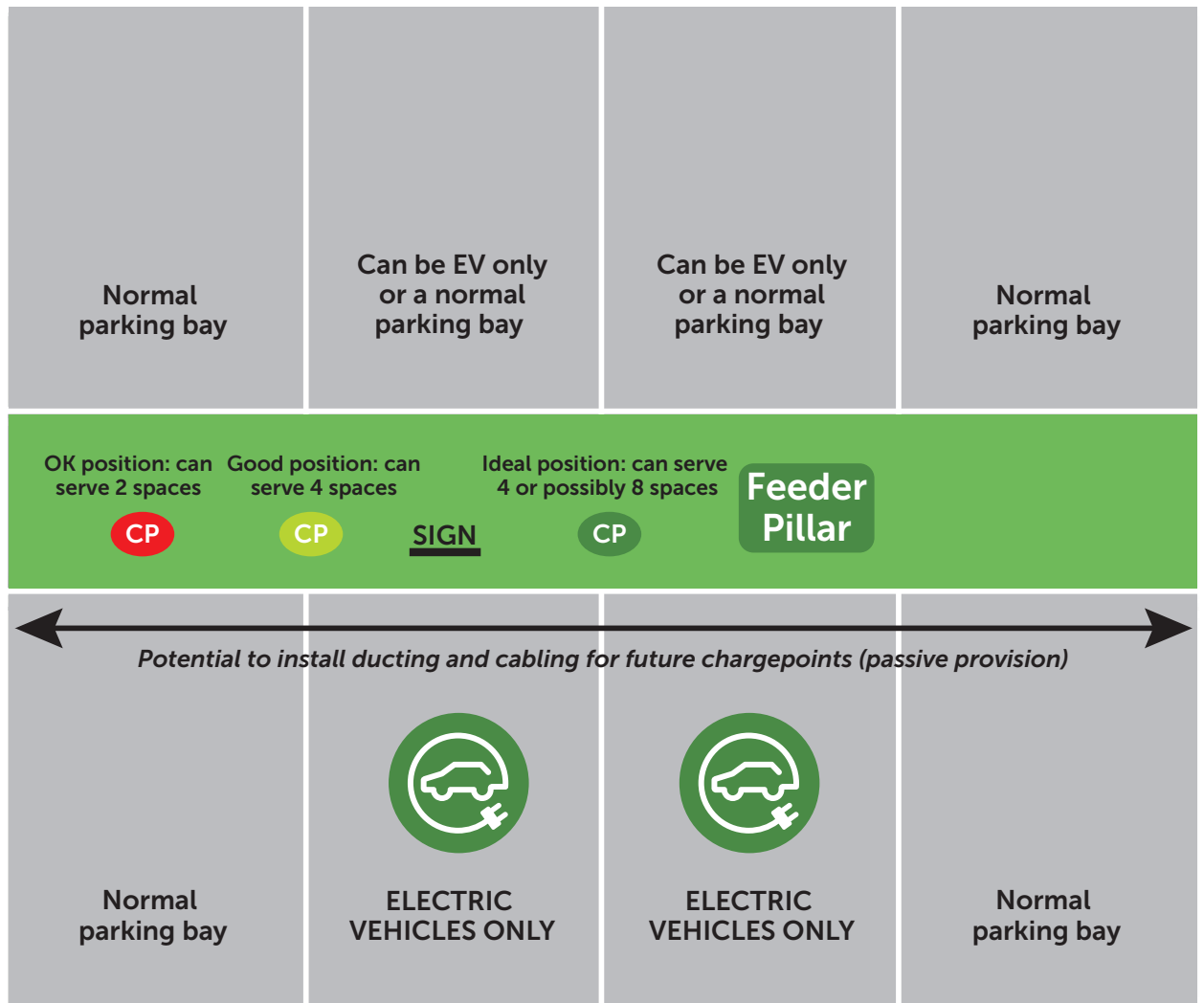
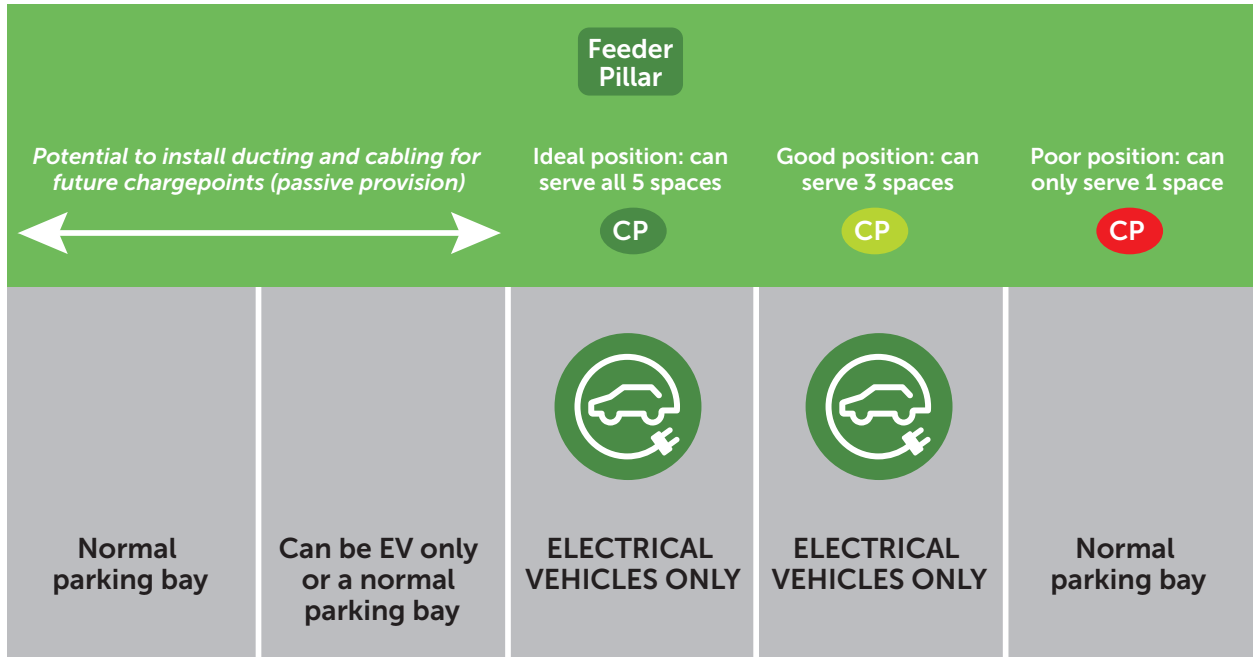
Where EV charging points are located on a footway there should still be sufficient width for appropriate pedestrian use of the footway.

Approved Documents S and M of the Building Regulations specify accessibility standards. Applicants must evidence compliance with these standards in order to ensure that car parking layouts approved at planning application stage are deliverable.

For example car parking layout plans accompanying 'Climate Mitigation Statements' must show the adjacent carriageway and/or footway including margin widths. Car parking layout plans must also identify the number of parking spaces with electric vehicle charging points and if these are active or passive.

Care should be taken to prevent trip hazards from charging cables, for instance wall-mounted units should be avoided where there is a pathway in between the charging point and the vehicle.

Figures 3 and 4 below illustrate how the placing of charge points and EV bays can restrict or maximise access in car parks.



Source: Positioning charge points and adapting parking policies for electric vehicles - A report by the Energy Saving Trust August 2019

Design and accessibility for people with disabilities

The design and layout of disabled bays with EVCPs should comply with the Equality Act 2010 guidelines and Department for Transport (DfT) Inclusive Mobility – a guide on best practice on access to pedestrian and transport infrastructure guidelines (2021). The design of the EVCPs shall permit compliance with the requirements of BS 8300:2009 and A1:2010 – Design of Buildings and their approaches to meet the needs of disabled people code of practice. EVCP units serving disabled bays should be positioned at a height and angle to allow wheelchair users access. In all cases, adequate space should be available on any footway for wheelchair users to navigate around the charging unit.

Designing for on street EV charging provision

Similar principles apply to on street EV charging provision. Installing an EV charge point on a pavement takes up valuable space so it is important to assess potential locations carefully. If a charge point excessively narrows the pavement, it will cause an obstruction impacting pedestrians, wheelchair users, people with pushchairs or those with a visual impairment.

Physical infrastructure for EV should ideally be located off the footpath. Where charging points must be located on the footpath, the pavement must remain of a width that ensures it is accessible to all users.

The positioning of street furniture must be carefully considered so that it does not restrict access to EV charging points or further restrict access to users of the footpath in combination with EV charging points.

To avoid creating a tripping hazard, charge points should not be placed at the back of a pavement or wall-mounted where this requires cables to stretch across a pavement.

Avoid installing charge points in locations where the available pavement space has already been restricted by other street furniture, such as road signs, feeder pillars, and bike racks.

Designing for minor residential development

For the purpose of this guidance, minor residential development is development that proposes to deliver nine dwellings or less.

As opposed to major residential development, in accordance with Policy TRA3a 'Parking Standards for Residential Development' of the Local Plan 2030 (above) minor residential development is required to provide parking on-plot.

In the case of minor residential development, Climate Mitigation Statements will be expected to evidence that EV charging provision can be delivered in accordance with the design and placemaking principles set out within 'Designing for private driveways', and 'future management'.

Signage for EV charging provision

Car parks for communal use and on street EV charging provision must be clearly signposted to prevent them from being blocked by petrol or diesel vehicles.

Signage must be located close to the charging points. Painted bays are also encouraged provided they can be integrated without harm to visual amenity.

Signage must comply with The Traffic Signs Regulations and General Directions (TSRGD) 2016 if erected on the public highway or land that is proposed to be offered up for adoption. The requirement to comply with the TSRGD 2016 does not apply to private roads however use of similar signage (where necessary) is recommended to aid easy identification of EV charging points.

In accordance with Building Regulations Approved Document S future charging locations (those with passive provision) should also be signposted.

Future Management

For developments (of all types) where parking is communal, details of how the parking spaces with EV charging points will be managed and how the charging system will operate must be included within the 'Climate Mitigation Statement'.

EV Charging Infrastructure and Technology

What is active and passive provision?

Active charging points are fully wired and connected ready to use charging points at parking spaces.

In the case of passive provision, the underlying infrastructure is in place, for example, capacity in the connection to the local electricity distribution network and electricity distribution board, as well as cabling to parking spaces, but the electricity supply is not activated.

Passive provision enables installation and activation at a future date, thus future proofing developments.

What is smart charging / smart functionality?

A smart charge point is one which is communications enabled and able to respond automatically to remote signals by adjusting the electricity consumption flowing through the charge point.

EV smart charging involves shifting charging to a different time of day, such as overnight when there is lower demand on the electricity system, or to times of high renewable energy generation. This can help reduce the need for costly electricity network reinforcement and increased generation capacity, and offers benefits to consumers too, including savings on their energy bills. Smart charging of EVs plays an important role in driving the transition to a smarter and more flexible energy system.

On 30 June 2022 the Government introduced secondary legislation through The Electric Vehicles (Smart Charge Points) Regulations 2021 to mandate that all private (domestic and workplace) charge points sold in Great Britain must include smart functionality and meet minimum device-level requirements.

The Government define smart functionality as the ability to:

- (a) send and receive information; and
- (b) respond to this information by:
 - increasing or decreasing the rate of electricity flowing through the charge point; and
 - changing the time at which electricity flows through the charge point.

In order to respond to the Government overarching aim to maximise the use of smart charging technologies, the council will expect all domestic charge points to include smart functionality.

What types of power supply are available?

Charging points are primarily defined by the power (in kW) that they can produce and the speed they are capable of charging an EV.

There are three main EV charging speeds:

Slow 3 kW: standard chargers are suited for overnight residential charging as a full charge would take 7-8 hours. These can be installed either off-street or on-street.

Fast 7 – 22 kW: fast chargers provide a full charge in 3 to 4 hours, meaning three or four users a day could charge. These EV charging points are most common on-street or in public car parks, as well as at retail locations and workplaces.

Rapid 50 kW: rapid chargers suit the needs of users who need to charge their vehicle quickly and because their cars are typically in use for many hours in the day. Rapid chargers can give an 80 per cent charge in 20-30 minutes, allowing a greater number of charges per day. However, due to their size and visual impact, they are mostly suited to off-street locations such as carparks and service stations.

Ultra 150+ kW: Commonly used in commercial settings.

What types of plug should I use?

Although a 3 pin plug can be used to charge an electric vehicle it is not the fastest or most efficient way of charging. For example, to fully charge a 40 kWh Nissan Leaf with a 3-pin plug and cable would take 13 hours and a 42.2 kWh BMW i3 would take 18.5 hours – this equates to around 8 miles of range for every hour of charge.

Charging with a 3-pin plug isn't the safest way to charge a vehicle either as the electrical demand can become too much. A dedicated EV charger is a much more suitable and safe option.

The council will expect all EV Charging points to deliver Type 2 plugs.

Figure 5 below, identifies the types of plugs available.

Plug Types

There are seven main plug types for EV charging. Cables are available that combine a variety of plug types to cover a range of charging/charging unit options. When selecting cables is important to select a cable of the correct amperage for your charging set up. Most current plug-in vehicles charge at 16A as a function of their on-board charging capacity, but as demand and uptake increase future vehicles will be able to charge at a faster 32A rate.

The standard EV charge plug for the UK is a "Type 2" plug.

Standard/Fast Charging



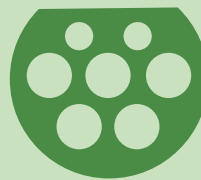
3 PIN*



COMMANDO



TYPE 1

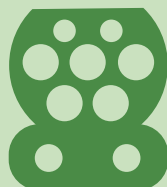


TYPE 2

Rapid Charging



JEVS/CHAdeMO



CCS



TESLA (TYPE 2AC 43KW)

*3 pin plugs are no longer used for Mode One EV charging in the UK.

Model Planning Conditions

EV Charging for new dwellings:

Prior to the first occupation of the approved dwelling with a designated car parking space provided by means of a driveway, carport, or garage, the dwelling shall be provided with at least one active electric vehicle charging point in accordance with the approved details.

The charging point shall be fitted with a Type 2 plug socket (or a socket that has a higher efficiency standard), have a minimum power rating output of 7kW (mode 3 AC) and must be SMART (enabling Wifi connection).

The charging point(s) shall thereafter be maintained in accordance with the [*document title/date*] and retained available in a working order for the charging of electric vehicles.

Reason: In order to take into account the cumulative impacts of development on air quality and climate change, to assist modal shift and encourage the use of sustainable transport modes through incorporating facilities for the efficient charging of plug-in electric and hybrid vehicles by scheme residents and visitors.

EV charging for apartments or flats:

Prior to the first occupation of any apartment or flat, infrastructure for electric vehicle charging providing [**% or **#] active charging points and [**% or **#] passive charging spaces (fitted with suitable electric vehicle charging ductwork capable of receiving the underlying infrastructure for future Electric Vehicle Charging points) shall be provided in accordance with the approved details.

Active charging points and future active charging points shall be fitted with a Type 2 plug socket (or a socket that has a higher efficiency standard), have a minimum power rating output of 7kW (mode 3 AC) and must be SMART (enabling Wifi connection).

The charging point(s) shall thereafter be maintained in accordance with the [*document title/date*] and retained available in a working order for the charging of electric vehicles.

Reason: In order to take into account the cumulative impacts of development on air quality and climate change, to assist modal shift and encourage the use of sustainable transport modes through incorporating facilities for the efficient charging of plug-in electric and hybrid vehicles by scheme residents and visitors.

APPENDIX 5 – RAINWATER HARVESTING

National and Local Policy Context

The Flood and Water Management Act 2010 (as amended) was brought into force to respond to pressure to introduce legislation to address the threat of flooding and water scarcity, both of which are predicted to increase with climate change.

Amongst other things, the legislation enables water companies to control non-essential uses of water more easily. Thus highlighting the significance of water efficiency which includes the conservation of water for re-use.

In March 2020, (post adoption of the Ashford Local Plan 2030) the Environment Agency published a National Framework for Water Resources.

It showed that if we continue to operate as usual, by 2050:

- the amount of water available in England could be reduced by 10 to 15 percent,
- some rivers could have between 50 and 80 percent less water during the summer,
- and, we will not be able to meet the demands of people, industry and agriculture.

This means higher drought risk, caused by the hotter drier summers, and less predictable rainfall. If significant action is not prioritised, then by 2050, around 3,435 million extra litres of water per day will be needed to address future pressures.

This includes 1,040 million litres per day to supply the growing population alone.

The South East faces the greatest pressures on public water supplies and requires around 50% of the national public water supply need. Failure to manage water resources in an appropriate way will reduce resilience, limit progress on environmental improvements and could lead to more frequent use of drought measures such as hosepipe bans.

At a local level, the Ashford Local Plan 2030 recognises that water is a finite resource essential for human health and wellbeing as well as the natural environment. We also recognise the water stress nature of the area.

To deliver efficiencies and manage demand, Local Plan Policy ENV7 'Water Efficiency' seeks to secure long term reductions in water use to 110 litres per person, per day in accordance with Building Regulations.

However, in light of the heightened prevalence of impacts associated with water scarcity (i.e. drought) the council consider that further requirements should be introduced to help mitigate the effects.

This national and local context provide the framework for the requirements set out in the guidance contained within this document.

Climate change is disrupting weather patterns, leading to extreme weather events, unpredictable water availability and exacerbating water scarcity. Currently household demand for water is a high proportion of the current effective rainfall which is available to meet demand, and as such the whole of South East Water's supply area is currently classified as 'an area of serious water stress'.

What issues around design and layout does an applicant need to take into account?

What size system do I need?

Planning applications for qualifying development must demonstrate that the size of the system to be provided has taken account of the following:

- a) Average annual rainfall in your area
- b) Number of bed spaces in the property
- c) Roof area
- d) Garden size

Design and layout

Rainwater harvesting systems should be provided having regard to the following:

- a. Location - placing rainwater harvesting systems on frontages and/or adjacent to principle elevations and access points should be avoided.

Creating space for rainwater harvesting facilities along the side of buildings/extensions or to their rear will have a far more limited impact on the wider locality and the quality of the place.

- b. Screening – In the case of large facilities for rainwater storage, consideration should be given to whether or not the facility can be screened this might include the creation of a means of enclosure.

Screening solutions should be integrated into the overall design of the building/extension as this has the benefit of creating a functionally coherent design that sits comfortably with the form, scale, architectural style and detailing of the proposed building or extension. This will be especially important where development is located within a designated conservation area, and or affects a Listed Building or its setting.

Rainwater Harvesting Infrastructure and Technology

What is rainwater harvesting?

Rainwater harvesting is the collection and storage of rainwater for re-use, and involves collecting water run-off from a structure or other impermeable surface.

Traditionally, this involves harvesting the rain from a roof via pipes/guttering and channelling the water into an over ground or underground tank, pit, or retention basin (pond) where it can be stored for future use.

Types of Rainwater Harvesting Systems

Rainwater collection systems can be as simple as collecting rain in a basic tank such as a water butt, or as elaborate as harvesting rainwater into large cisterns to supply demand for an entire household. The different types of rainwater harvesting systems are summarised in the table below.

Type	Details
Water Butt	Water collected from different sources such as roofs and other impermeable surfaces can be filtered and stored in a water butt. This water can be used for a variety of purposes including gardening and washing cars.
Direct pumped (Submersible) system	This system is mostly used for domestic properties and commercial installations of a small size. The system comprises a submersible pump which is located inside an underground tank. The water within the tank can be used to pump directly to washing machines and toilet cisterns. Mains water is supplied to the tank in small amounts to maintain supply.
Direct pumped (Suction) system	In this rainwater harvesting system, the pump is located inside a control unit within the building. The pump is located outside of the tank and the backup from the mains water supply is dealt with by a suction pipe so that mains water is not directed to an underground tank.
Indirect gravity	This type of system differs in that the harvested water is first pumped to a high level tank (header tank), then allowed to supply the outlets by gravity alone.
Indirect pumped	This arrangement is similar to an indirect gravity system, except that the internal tank can be at any level in the building, as it does not rely on gravity to supply the outlets.
Gravity only	In some situations it may be possible to have a system that functions purely through gravity, requiring no pump and therefore no energy use.

Where Can I Use Recycled Rainwater?

Recycled rainwater can be used for:

- Washing clothes using a washing machine
- In the garden, for watering plants
- Toilet flushing
- Washing cars
- Cleaning building exteriors

Various factors can affect the quality of rainwater, including how frequently it rains, the levels of air pollution, and methods and tools used to collect, treat and store the water. To minimise the risk of pollution, the council will require all types of systems to be fitted with a filter.

Environment Agency Requirements

The Environment Agency will not regulate harvested rainwater provided its use does not harm the environment – either alone or combined with other abstractions or transfers. Rainwater harvesting within a catchment must not affect the normal watercourse flow.

You do not need an abstraction licence to use water that only consists of harvested rainwater. However you may need a water abstraction licence if you combine harvested rainwater with ground or surface water, which you then abstract or transfer.

For further information please visit the GOV.UK using the link below.

<https://www.gov.uk/government/publications/rainwater-harvesting-regulatory-position-statement>

Links to useful Information

[Southern Water 'How to Save Water'](#)

[Southern Water 'How to fit a water butt'](#)

Model Planning Condition

Prior to the [first occupation or first use] of any [dwelling or extension] a system for rainwater harvesting shall be provided with a connection to a rainwater downpipe in accordance with the approved details. The rainwater harvesting system shall be maintained and retained thereafter.

Reason: To allow residents to store rainwater on site for re-use thereby reducing the demand for mains water on site.

