

Government call for evidence on solar car parks and EV charging

Photo 1: Illustrative solar canopy type, as used in call for evidence document:



Section 1 Questions

Q: What different car park ownership models in England, Wales and Northern Ireland are you aware of? Please provide any evidence you have on the proportion of market share covered by each of these ownership models.

North Yorkshire Council operates 176 car parks in total, of which 153 are charged (under TPOs), the rest are free. We know that there are a small number of privately run car parks, *excluding* supermarkets and similar locations. The total of car parks across all North Yorkshire number is not known.

Q: There is conflicting evidence on the number, size and location of non-domestic car parks in England, Wales and Northern Ireland. Can you provide quantitative evidence to help address this?

None available

Q: Do you agree that we have identified all the major benefits to car park owners which could emerge from the installation of solar canopies?

Yes. We would also recommend consideration on how the policy can support other types for renewables which may be appropriate in some locations. Other renewable energy types can complement solar PV by generating energy at different times, enhancing overall output and resilience. As part of this we would need clear national or local frameworks to streamline approvals while ensuring safety and noise standards are met.

Q: How would you expect any generated electricity on the car park(s) you might own or operate to be used? You may select multiple options.

Either self-consumption (including on-site EVCPs) or exporting to grid. This would depend on many factors including the intended business model, the specifics of the location itself and its expected use.

Q: How do you think the installation of solar canopies would impact the financial valuation of a car park?

No evidence currently on impact.

Q: Do you agree with the estimated revenue from selling electricity back to the grid through a SEG tariff, and/or the estimated electricity cost savings from self-consumption? Please provide any relevant qualitative or quantitative evidence.

Don't know. No evidence held either way.

Q: Do you agree that we have identified all the potential wider societal benefits?

Yes

Q: Do you think that solar capacity installed on car parks would be new capacity, or would it displace solar capacity from elsewhere in Great Britain?

More likely to be new capacity, especially for council owned car parks. However in private sector this would depend who the developer/investor is, and whether they are diverting investment from, say, solar projects elsewhere, so it is a hypothetical as present.

Q: Do you agree that we have identified all the major costs that could emerge to car park owners from the installation of solar canopies?

No. Costs should also include the cost of site surveys, feasibility studies and preparation of business cases for individual locations. Also include any necessary enabling works which will vary from site to site.

It is essential that all installations must meet safety regulations, including electrical isolation, fire safety, and structural standards. Canopies should be designed to maintain accessibility for all users, including disabled drivers, and to ensure the car park remains safe and user-friendly.

Q: Do you agree with the estimated costs and assumptions relating to: installation, grid connection, missed revenue, familiarisation and maintenance?

There are too many variables to give a clear sense of likely costs. For example, physical site constraints, grid capacity, type of system, overall design and market volatility will all have an impact of feasibility and final cost.

We recommend the department carries out some "real-life" feasibility studies at archetype car parks to establish a clearer understanding, for example a sample of rural and urban settings, in different regions and with different grid capacity.

Q: How do you think these costs may differ between existing car parks and new car parks?

We assume that the cost of installation would be lower in a new car park because the car park location, layout and design can be created with canopy installation in mind from the outset, whereas a retrofitted solution may have to overcome individual site constraints which would add to the cost.

Q: How would you cover the costs arising from the installation and maintenance of solar canopies? Please provide any relevant qualitative or quantitative evidence.

We have not carried out any feasibility studies on our existing car park estate so cannot provide qualitative evidence. However, given the pressing limitations on local authority budgets, we would only proceed on the basis that an installation has to be cost neutral (or best-case scenario income generating) in this case by both reducing electricity bills for on-site services including EVCPs, and exporting to the grid.

Q: Would mandating the installation of solar canopies impact your decision to construct new car parks?

No comment as we have no plans for new ones currently.

Q: If you were looking to develop a new car park and solar canopies were mandated, would you look to install and manage the solar panels in-house, or sell / lease the car park area to another company?

Difficult to answer, as this is a hypothetical scenario. It would depend on the individual location and business case for investment.

Q: Would mandating solar canopies on new car parks impact other planned investments such as building new housing or other solar/renewable generation installation (e.g. on the roof of adjacent buildings)?

No evidence on this currently.

Q: How does the cost of solar canopy installation compare to installing solar elsewhere (e.g. on rooftops or in nearby solar farms)?

We would expect it to be lower.

Q: If solar were mandated on car parks, how long should the implementation period be, in order to reduce costs and disruption?

We would encourage implementation of the policy as soon as possible once mandated.

Q: Do you agree that we have identified all the costs of this proposal to wider society which could emerge?

Yes

Q: Do you agree that we have identified all the major barriers to the installation of solar canopies, or have we omitted anything? Do you disagree with any of the barriers we have outlined? Please provide any relevant qualitative or quantitative evidence.

Yes

Q: What support or incentives would help overcome these barriers? Can you think of any other government measures, aside from mandating, which would help increase solar deployment on existing car parks?

Funding:

Government funding (e.g. direct grants) would be essential for retrofitting public sector and council-owned car parks. Also keeping/making relevant installations VAT-free.

Planning permission:

Solar canopies on new car parks should be standardised in planning policy, ensuring consistent delivery aligned with climate targets.

Grid connection:

National policies should prioritise renewable energy connections and provide clear guidance for integrating solar and wind generation with EV charging.

Battery storage:

Guidance is needed to integrate battery storage safely in public car parks, given the potential benefits of storage to manage peak loads.

Q: If you are a car park owner/operator with solar PV deployment already, what were the biggest barriers to installation and how did you overcome them?

N/A

Q: Might there be impacts on the distribution networks as a result of this policy? Please provide detail.

We recommend consulting in detail with the DNOs.

Q: Would you be willing to accept an export limitation condition (potentially capped at zero export) to speed up the connection process? How would this affect the timescale for making returns on the initial capital investment?

It is unlikely we would accept this. Depending on the size and type of system and on-site facilities, it is unlikely we would consume all generated power on-site, so a stringent (possibly zero) export cap would undermine the business case for investment. The suggestion of a capped or zero export condition is in opposition to other points in the consultation relating to estimate energy generation income.

Q: If a mandate is introduced, how should it be monitored and enforced?

We presume this would sit with local authority development control. Resources would need to be available via fees or other sources to enable this new work to be effectively delivered.

Q: Should any additional categories of car parks be exempt (e.g. based on size, location, unsuitability, physical state or usage)? Your answer may refer to existing and/or new car parks.

Exemptions should apply where installing canopies would clearly be unfeasible.

Q: Do you think any policy to mandate solar installation should apply to existing car parks or only new car parks? Do you think residential and/or multi-storey should be exempt?

We are supportive of the principle, but any mandatory regulation for retrofitting systems has to require funding for implementation. For the council, the installation has to be cost neutral.

This will either be achieved by ensuring revenue generated covers costs (which may vary from site to site), and/or by provision of government grant to enable work to happen. Many existing sites were not designed for PV, so would be cost-prohibitive to install.

For existing car parks, we recommend a site-by-site feasibility assessment before mandating retrofits. Many existing sites are shaded, poorly oriented, or face structural challenges that limit the viability of PV. A tailored approach ensures that investment is directed where it will deliver the greatest benefits.

There are unlikely to be any surface level residential car parks of that size within North Yorkshire. For multi-storeys this will be very site specific. We are aware of some existing MSCPs which are not structurally suitable for roof-mounted PV. For new construction, this can be built into the design but we do not have insight into likely costs.

Section 2 Questions

Q: Are the current planning rules, included planned changes, around charging on private land appropriate? Are there further potential changes that could be made to the planning system in relation to EV charging installations and the associated site in residential and commercial settings, including listed buildings? What evidence can you provide that would support this position?

The rules around charging on private land are appropriate.

Q: Are the current and planned planning rules around equipment, housing and energy storage systems (i.e. batteries), and the use of solar appropriate? Are there further changes to the planning system that could accelerate the installation of energy storage systems to support ChargePoint installations? What evidence can you provide that would support this position?

Q: What changes could be made to consenting processes for cross-pavement charging solutions, if any? What evidence can you provide to support this position?

A major barrier to cross-pavement charging solutions is the current requirement for planning permission. This requirement should be retained only for listed buildings and properties within conservation areas. In other cases, the consenting process could sit primarily with Highways or EV Infrastructure teams, focusing on the physical suitability of the location for a cable to cross the pavement.

At present, residents without off-street parking face a lengthy and uncertain process. Applying for planning permission typically takes 8–12 weeks, costs £528 in application fees, and often involves additional professional costs for drawings or supporting material, with no guarantee of approval. Even if planning is granted, applicants must still separately secure Highways approval. This makes the process disproportionately complex and costly compared to other home improvements.

To address this, national criteria should be established to determine where and how cross-pavement charging can be permitted. At present, local authorities are forced to interpret ambiguous or conflicting guidance, often developing their own approaches and exposing themselves to liability risks in the process. There are no national standards for key elements — such as cable gulleys or cable mats — leaving councils to navigate a complex and inconsistent landscape. Current guidance is insufficient and lacks the clarity and authority needed.

A nationally defined framework should be introduced, clearly specifying:

- Where cross-pavement charging can be permitted
- What types of installations are acceptable
- Who can carry out the work
- What insurance households must hold
- What constitutes a safe installation in terms of both electrical and highway safety

Such a framework would provide consistency and reduce the burden on local authorities. If needed, a dedicated licensing scheme for cross-pavement charging could be created to formalise and enforce these requirements.

As evidence, North Yorkshire Council has been developing a cross-pavement charging trial for over 12 months, but progress has been slow due to the need to resolve multiple overlapping issues. These include:

- Unclear responsibilities around insurance, risk and liability
- The need to coordinate Highways permissions, planning requirements and safety regulations
- A lack of standards regarding safe distances from electrified street furniture
- Liability questions around maintenance and reinstatement following utility works or resurfacing

A national framework would streamline this process and remove many of the current barriers, enabling a fairer and faster rollout of EV charging for residents without access to off-street parking.

Q: Are the current rules for planning and consents around on-street charging appropriate? What further changes would you make? What evidence can you provide to support this position?

The current rules for public charging are appropriate.

Q: Overall, and having regard to the contents of this call for evidence are there any other comments you wish to include in the role of highways permitting and licencing or national planning policy / guidance in better planning for and delivering electric vehicle charging infrastructure? What evidence can you provide to support this position?

Local Authorities should retain control of what is installed where on the Highway to ensure safety, clarity and consistency.