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Island Communities Impact Assessment

Building (Scotland) Amendment (No.2) Regulations 2022

Contents

Introduction

Section 7 of the Islands (Scotland) Act 2018 (the 2018 Act), places a specific duty on relevant authorities, including the Scottish Ministers and other public bodies, to have regard to island communities in carrying out their functions.

This includes the need to consult with island communities and prepare an Island Communities Impact Assessment (ICIA) to determine and respond to any changes arising from legislation which, in their opinion, is likely to have an effect on an island community which is significantly different from its effect on other communities (including other island communities) in Scotland.

This assessment should:

- describe the likely significantly different effect of the legislation;
- assess the extent to which the Scottish Ministers consider that the legislation can be developed in such a manner as to improve or mitigate, for island communities, the outcomes resulting from the legislation; and
- set out the financial implications of steps taken under this subsection to mitigate, for island communities, the outcomes resulting from the legislation.

The Island Communities Impact Assessments: Guidance And Toolkit (2020) (the Guidance) sets out an approach for undertaking an ICIA. This includes an initial screening stage ('Section 7 assessment'), followed by an additional impact assessment stage ('Section 8 assessment') if required following screening. The final stage is the publication of relevant documents.

This document constitutes the ICIA undertaken in respect of The Building (Scotland) Amendment (No.2) Regulations 2022 as they relate to standards for the installation of Electric Vehicle charge point sockets and enableing EV infrastructure in new domestic and non-domestic buildings. Whilst our overall assessment is that these standards will be beneficial to Island communities and that the impact will not be negligibly different from what we expect the impact to be on the rest of Scotland, we have decided to undertake and publish a light-touch ICIA to reassure those communities of our reasoning behind not implementing a different policy in the Islands.

Background

The First Minister declared a Global Climate Emergency in April 2019 and announced that Scotland will be carbon neutral by 2040 and will emit net-zero emissions by 2045. The Scottish Government's Climate Change Plan update (CCPu), published in December 2020, set out the pathway to meet Scotland's statutory greenhouse gas emission reduction targets by 2032.

With the transport sector being the largest emitter of greenhouse gases in Scotland, accounting for 29% of all emissions in 2019, and road transport making up the majority of those emissions at 66% (Scottish Greenhouse Gas Statistics), we have committed to decarbonising transport in Scotland. Scotland's ambitious climate change legislation sets a target date for net zero emissions of all greenhouse gases by 2045, with interim targets of 75% by 2030 and 90% by 2040. In line with this, the National Transport Strategy 2 sets out the strategic vision for Scotland's transport system and the national Mission Zero for transport aims to ensure people and places benefit fairly from the shift to sustainable, zero emission mobility. This underlines our ambition to deliver a healthier, cleaner and greener Scotland for current and future generations.

As part of this, we are fully committed to phasing out the need for petrol and diesel cars and vans by 2030. The transition to Electric Vehicles (EV) will contribute significantly to these goals and, with demand growing rapidly, we want people to have access to convenient and reliable EV charging infrastructure at home, at work and when out and about.

As part of this on 26 July 2021, the Scottish Government launched a consultation: Building regulations - energy standards and associated topics - proposed changes. Section 7 of the consultation sought views on the requirements we are setting out in legislation for the installation of EV charge points and enabling infrastructure in a new domestic and non-domestic buildings with parking spaces. Policy proposals consulted on are set out below.

New Residential Buildings	• All dwellings with a parking space to have at least one EV charge point socket with minimum 7kW output power rating. • Exemption to requirement to install EV charge point if additional cost of electricity grid connection exceeds £2,000. • If exemption applies ducting infrastructure to be installed in each car parking space.

Residential Buildings undergoing major renovation	• For buildings with more than 10 car parking spaces, ducting to be installed in each residential car parking space to support the future installation of an EV charge point (unless the cost of recharging and ducting infrastructure exceeds 7% of total major renovation cost). • EV charge points sockets to be installed, with minimum 7kW output power rating, in as many residential car parking spaces as the electrical capacity of building post-renovation allows.
New Non-residential Buildings	• For buildings with more than 10 non-residential car parking spaces, 1 in every 2 non-residential parking spaces to have ducting installed and 1 in every 10 non-residential parking spaces to provide an EV charge point socket with minimum 7kW output power rating.
Non-residential Buildings undergoing major renovation	• For buildings with more than 10 non-residential car parking spaces, 1 in every 2 non-residential parking spaces to have ducting installed and 1 in every 10 non-residential parking spaces to provide an EV charge point socket with minimum 7kW output power rating (unless the cost of recharging and ducting infrastructure exceeds 7% of total major renovation cost).

Table 1. Policy Proposals

The building standards system in Scotland is established by the Building (Scotland) Act 2003 (the 2003 Act). The system regulates building work on new and existing buildings to provide buildings that meet reasonable standards which:

- secure the health, safety, welfare and convenience of persons in or about buildings and of others who may be affected by buildings or matters connected with buildings;
- further the conservation of fuel and power; and
- further the achievement of sustainable development.

Requirements applicable to building work are set through Building Regulations as a set of mandatory functional standards. These standards are supported by a body of guidance set out in Domestic and Non-domestic Technical Handbooks. This published guidance assists by defining the scope of action expected under each standard, providing one or more examples of how compliance with the standard can be achieved. Noting that the standards can also be met through use of solutions not included in published guidance. Standards are defined and applied at a national level.

Whilst the building standards system does enable flexibility in how compliance with standards is demonstrated, the current published Technical Handbooks do not provide alternative approaches based specifically upon the geographical location of construction work.

These new EV infrastructure requirements for new buildings, and those undergoing major renovation, will apply to all car parking spaces associated with buildings to which the Building (Scotland) Regulations 2004 apply. There are some limited building types that are exempt from the building regulations, such as a building where explosives are manufactured or stored.

Objectives

The Scottish Government is committed to the decarbonisation of transport and with demand for Electric Vehicles (EVs) expected to grow rapidly, enabling people to switch to zero emission vehicles will require ready access to convenient and reliable EV charging infrastructure.

Availability and convenience of EV charging infrastructure is frequently cited as an negative factor impacting an individual's decision to purchase an EV[1]. To overcome this barrier, growth in EV uptake will need to be matched with growth in reliable and convenient charging infrastructure that puts consumer needs first. Overnight charging of an EV at home, for example, provides a convenient opportunity for many households. Similarly, opportunities to charge at other locations, including at workplace and leisure destinations, will be important for those without a dedicated driveway and to meet charging needs on longer journeys.

Therefore, the Scottish Government is introducing this legislation to further increase the availability of EV charge points and infrastructure in all new buildings, both publically and privately. Whilst our overall approach to the decarbonisation of transport is to enable a more sustainable travel and transport system, we must also acknowledge that car usage will continue, and the aim of this legislation is to provide the charging environment that will give car users the confidence to make their next car an electric car.

Gathering Data and Identifying Stakeholders

On 26 July 2021, the Scottish Government launched a consultation: Building regulations - energy standards and associated topics - proposed changes. Section 7 of the consultation sought views on the requirements we proposed to set out in

[1] As reported in Transport and Travel in Scotland 2019: Results from the Scottish Household Survey

legislation for the installation of EV charge points and enabling infrastructure in a number of different building types with parking spaces (**Table 1**). The consultation closed on 28 November and analysis of those responses was undertaken by Harlow Consulting.

In addition, Transport Scotland hosted four Q&A webinars in August and September 2021 on the policy proposals for EV charge points. A number of stakeholders participated, including representatives from the public sector, building developers and the transport sector. These webinars were open to all and advertised on the consultation website.

Specifically, we hosted an Islands themed webinar on 2 September 2021 to discuss these proposals with stakeholders from island communities – the webinar was open to all, including those who live in the islands.

We received responses from all six island councils and a further two responses from stakeholders in the island communities, alongside a number of responses from bodies that represent the whole of Scotland.

In addition, Transport Scotland funded the University of Edinburgh's ClimateXChange research programme to undertake an evidence review, including case studies, of the cost of installing EV charge points and infrastructure in new buildings in a number of different scenarios, including one case study in an island context. The review and case studies were published in ClimateXChange's research paper, Electric vehicle enabled buildings: evidence review of installation costs.

The research and the views gathered through the consultation process informed this assessment and our decision making process.

Consultation and Research

A number of points were raised through the webinars and consultation responses with regards to the islands. The main points raised with regard to these requirements in an island setting were:

- lack of capacity on small and fragile local electricity grids, particularly when these requirements are considered in the wider context of increased demand across households (new heating requirements, for example);
- the cost of construction works and/or the grid connection, including EV infrastructure work, being more expensive in remote/rural areas; and
- an ask for consideration to be given to undertake a different approach to remote/rural areas.

A number of additional wider points were raised around concerns about the policy locking in car use and going against the wider transport hierarchy objectives of the Scottish Government and Local Authorities.

In addition, the research paper also highlighted the potential for additional labour costs in remote islands, with the lack of skilled contractors and installers identified as potentially being more scarce in these locations. The research also highlighted that costs could be much higher with regard to installations for new non-domestic buildings and that there would be additional supply-chain challenges.

Below is a table from the research paper that demonstrates the range of costs in different geographical locations.

Geography	Residential	Non-Residential
Urban	£579 - £1,035	£2,044 - £11,569
Rural	£570 - £1,030	£1,273 - £7,255
Remote Island	£777 - £1,307	£1,653 - £26,584

Table 2. Range in Installation Costs by Geography

Overall, the evidence gathered in the paper and through the consultation, whilst limited, does highlight that there will be a higher cost of installation in island locations.

Assessment

Cost

On costs, it is clear that there will be higher installation costs in island locations but the evidence does demonstrate that, particularly for new domestic buildings, that it is likely not to be significantly higher (except in rare circumstances) than those developments on the mainland. Additionally, land prices on the islands do tend to be, on average, cheaper than in more urban locations and the cost of installing an EV charge point is, in most cases, highly unlikely to take the overall cost of a development to a point where it is unviable.

We also recognise that there is unique supply-chain considerations when it comes to new developments in island locations. This will not be unique to EV charge point installation – there are generally higher labour and material costs for developments as a whole - but it is reflected in the potentially higher cost of installation for some island developments.

That being said, it is clear that there is a minimal risk that this could lead to unviable developments in island locations, as well as remote and rural communities, but it is also a minimal risk in the densely populated urban areas of Scotland, but for different reasons – e.g. viability relating to land costs and grid capacity rather than construction costs. Therefore, whilst the cause of the risk is different, it is a risk across many parts of Scotland, not just in island locations.

As demonstrated in the islands case study in the ClimateXChange research paper (Hypothetical Case Study 6) it is also cheaper to install charge points, and the associated infrastructure, at the point of construction versus the cost of retrofitting at a later date. Proposing a different approach for developments on the islands would leave those communities behind with regard to EV infrastructure and any future efforts to build-up the infrastructure would be significantly more costly due to the increased cost of retrofitting.

Grid Capacity

It is clear that there will be unique grid capacity challenges in some island locations and where localised solutions to installation of charge points are cost prohibitive in residential developments, there will not be the need to install charge points if the cost of the grid connection is above £2000 or 7% of the total cost of the development for buildings undergoing renovation. However, ducting infrastructure will still be provided to allow building owners to undertake ‘no dig’ installation of charge points when grid constraints or connection costs are within a viable margin.

Again, this is not a challenge unique to developments in island locations. There will be urban developments where grid constraints will be a concern for the viability of the development and need to factored in during the planning stage.

In addition, the additional power requirements of 7kW EV charge points themselves, particularly with the advent, and increased usage, of smart meters, is unlikely to put undue pressure on the power supply for the vast majority of new developments.

Island Specific Approach

With regard to the points raised around having different minimal requirements for new developments in island locations, the nature of building regulations and their application as national standards does mean that requirements are applied equally across all Scottish local authority areas.

As building regulations exist to serve the public interest by delivering new developments which meet provisions set out under the Act it is difficult for regulation

to set lesser provisions on a geographical basis, as this may simply result in a poorer outcome from new developments.

In addition, given the Scottish Government's ambition to decarbonise transport by 2045, we must provide equitable net zero transport infrastructure across the whole of Scotland and ensure no community is left behind. If we were to propose a solution, other than through Building Standards, that allowed for localised requirements for EV charge point provision, there would, in all likelihood, be a disparity of EV charging infrastructure provision across the whole of Scotland – it would not be equitable for every new home with a parking space in Fife to have an EV charge point but only every third new home on the Isle of Bute to have an EV charge point.

We want to encourage EV uptake and, as previously highlighted, to do so we must improve the availability and convenience of EV charging infrastructure across the whole of Scotland. This means ensuring that, no matter where anyone may live or work in Scotland, there is the same minimal provision so that everyone is able to charge whilst at home, at work or whilst they are out and about.

Conclusion

Given our ambition to decarbonise transport across the whole of Scotland through a just transition and ensuring we leave no community behind, the cost of EV charge point installation being cheaper at the point of construction versus retrofitting and the national approach taken to building standards, we believe that the approach we are taking is the best one for island communities.

We do not believe that it would be equitable to provide different geographical solutions for EV charge point installation for new domestic and non-domestic buildings, nor do we believe that these new standards will have a disproportionately adverse effect on island communities.

Furthermore, these are minimum requirements and Local Authorities and developers can go beyond these standards with regard to the amount of EV charge points to provide in a new community centre car park for example, or if a Local Authority wanted all charge point sockets to provide a minimum output of 22kW.

Building Standards are regularly reviewed and monitored, and there will be opportunities to update these standards and guidance if the evidence available demonstrates that changes to the approach taken can improve EV provision and ensure the continued viability of developments - but again this would be done at a national level.

We will also continue to engage with the Distribution Network Operators (DNO) and energy providers as these new standards come into effect so that we can understand how they are working in practice and, again, update the standards or guidance if it is required.

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