Rialtas na hÉireann
Government of Ireland

Regulatory Impact Analysis (RIA)

Transposition of Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010" on the energy performance of buildings (recast) as amended by Directive (EU) 2018/844 of the European Parliament and of the Council of 30 May 2018"

Proposed amendments to Part L of the Building Regulations

(Conservation of Fuel and Energy)

And Technical Guidance Documents L

And new regulations under European Communities Act

December 2019

Prepared by the Department of Housing, Planning and Local Government
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Content

1. General Introduction

This Regulatory Impact Assessment (RIA) is concerned with proposals to amend the requirements of Part L (Conservation of Fuel and Energy) of the Second Schedule to the Building Regulations applicable to buildings other than dwellings and to dwellings. It also proposes standalone regulations under the Energy Performance of Buildings Directive (EPBD) to legislate for provisions that do not fall under the scope of building regulations.

The main provision of the revised EPBD to be addressed in this Regulatory Impact assessment (RIA) is the requirement to install appropriate infrastructure for the recharging of Electric Vehicles. Some additional requirements of the Directive are also included.

Article 8(2), (3) & (5) EV Infrastructure

The Directive requires the installation of appropriate infrastructure, to enable the installation at a later stage of recharging points for EVs, for new residential buildings and non-residential buildings and those undergoing major renovation, with more than ten parking spaces by 2020. In addition, non-residential buildings with more than ten parking spaces must ensure the installation of at least 1 recharging point. It also requires that Member States shall lay down requirements for the installation of a minimum number of recharging points for all non-residential buildings with more than twenty parking spaces, by 1 January 2025. See **Table 1** below for details of the requirements proposed. This includes some additional requirements for dwellings beyond those required in the Directive in order to future proof new dwellings. The ambition of the All of Government Action Plan requires 950,000 Electric Vehicles on the road in Ireland by 2030. Accordingly, we are proposing a requirement for appropriate electric vehicle recharging infrastructure for new dwellings with their own car parking space within the curtilage of the dwelling, to enable the installation of a recharging point for electric vehicles. We are also proposing that all new multi-unit residential buildings should ensure the installation of ducting infrastructure for every parking space.

Article 8(7) Measures to simplify deployment of EV recharging points

The Low Emissions Vehicle task force have 3 working groups in this area and published a report on 27th November 2019. Refer to Section 2.1 for detail on these working groups.

Articles 14(4) and 15(4) Building Automation and Control Systems

Where technically and economically feasible, non-residential buildings with an effective rated output for heating systems or systems for combined space heating and ventilation, or systems for air-conditioning or systems for combined air-conditioning and ventilation of over 290 kW are equipped with building automation and control systems by 2025.

Article 8(1) - Self-regulating devices.

Part L of the Building Regulations already provides for controls for zones to ensure the efficient use of energy by limiting the provision of heat energy use to that required to satisfy user requirements. Examples of self-regulating devices include thermostatic radiator valves and room thermostats which are currently provided for in Part L.

Overview of Legislative changes

The Second Schedule of the Building Regulations 1997-2019 sets out the statutory minimum building standards and performance requirements that must be achieved by a new building when it is constructed. The Schedule is comprised of twelve distinct parts, classified A to M, which are primarily designed to ensure the safety and wellbeing of people in and around buildings. A Technical Guidance Document is published to accompany each of the various parts, and it sets out how the legal requirements of each individual part can be achieved in practice.

The requirements of Parts A to M, and the associated technical guidance documents, are reviewed periodically by the Built Environment Advisory Unit of the Department in light of evolving issues relating to the built environment and in response to developments and trends within the construction industry. The aim of the Department is to develop and promote a strong and evolving building code in support of quality construction and sustainable development.

The purpose of this RIA is to consider in detail the impacts, costs and benefits of the proposed changes to Part L (Conservation of Fuel and Energy) and Regulations to transpose the requirements for Articles 8(3), 14(4) and 15(4) through the European Communities Act 1972. This RIA, together with draft copies of the proposed Part L amendment regulations, European Community Regulations for EV Infrastructure and Building Automation Control systems and accompanying Technical Guidance Documents L, will form the basis for a comprehensive two month public consultation process. It is intended that this process, taking due account of submissions received, will enable the Department to recommend a final set of amended regulations to the Minister for Housing, Planning, & Local Government for signature in Q.1 of 2020.

2. Electric Vehicle Recharging Infrastructure

Electric vehicles offer great potential to dramatically reduce local air pollution, greenhouse gas emissions and resulting climate change impacts, and oil use from the transport sector. Combined with an increased share of renewable electricity production, electric vehicles produce fewer carbon emissions resulting in better air quality. With electric vehicle costs steadily falling, the transition continues to become more feasible. This potential is enabled and made compelling by the ubiquity of electricity and the growing availability of low-carbon, renewable energy sources.

Lack of recharging infrastructure is a barrier to the take-up of electric vehicles in the EU and the revised EPBD has new provisions which aim to accelerate deployment. Article 8 requires the implementation of appropriate infrastructure, to enable the installation at a later stage of recharging points for Electric Vehicles, for new residential buildings and residential buildings undergoing major renovation, by 2020. It also requires that MS shall lay down requirements for the installation of a minimum number of recharging points for all non-residential buildings with more than 20 parking spaces, by 2025.

2.1 Current Programme of Change

The majority of the EV recharging network in Ireland was installed as part of a large scale innovation project to determine efficient and sustainable ways of delivering network capacity for EVs as uptake grows over the coming years. One of the aims of the National Development Plan is to provide additional recharging infrastructure for the targeted growth in electric vehicles.

The Low Emission Vehicle (LEV) Taskforce was established in December 2016 to consider the range of measures and options available to Government to accelerate the uptake of low carbon technologies in the road transport sector.

The LEV Taskforce is jointly chaired by the Department of Transport, Tourism and Sport (DTTAS) and the Department of Communications, Climate Action and Environment (DCCAE). It includes representatives from across the public sector and has consulted widely with industry, stakeholders and representative groups. The Taskforce has three working groups which are:

Working Group 1 which focuses on market growth stimuli, visibility and public leadership in LEV uptake in Ireland and is chaired by DTTAS.

Working Group 2 is concerned with infrastructure, energy regulation and pricing and is chaired by DCCAE. Its overall objective is to devise a sustainable policy framework to ensure satisfactory, effective and efficient LEV recharging and refuelling infrastructure.

Working Group 3 whose role is concerned with planning legislation and building regulations is chaired by the Department of Housing, Planning and Local Government (DHPLG). A range of stakeholders and industry experts have been consulted in addition to stakeholder events being held on the topics of incentives and recharging infrastructure. This included the introduction of Benefit-in-Kind tax relief, a grant for the installation of home rechargers, a grant for the use of EVs in the taxi/ hackney/ limousine sector, a reduction in tolls for electric vehicles and a public awareness programme.

The aim is not to increase passenger car use at the expense of wider policies to encourage greater use of public transport, cycling and walking. The aim is to facilitate infrastructure to make it easier for existing car owners to switch to Low Emission Vehicles. The implementation of these proposed regulations forms an integral part of these recommendations.

Development Plan guidelines are being revised to reference updated LEV policies to support the roll out of LEV infrastructure through Planning Authority functional areas. This includes requirements for residential and non-residential buildings planned for the end of this year, in line with Action 73 of

the Climate Action Plan and the recommendations of the Low Emission Vehicle Taskforce Working Group 3.

2.2 Climate Action Plan

In June 2019, the Government published its Climate Action Plan to Tackle Climate Breakdown. The plan is available to view at this link: www.dccae.gov.ie/en-ie/climate-action and sets a target of 950,000 electric vehicles to be on the road in Ireland by 2030.[1] It also sets out a range of actions to support the achievement of this target and the uptake of other low emission vehicles – such as compressed natural gas (CNG) vehicles.[2]

- Develop the EV recharging network necessary to support the growth of electric vehicles
- Develop and implement planning rules and guidelines across residential and non-residential parking locations for electric vehicle recharging infrastructure
- Ensure our regulatory framework for buildings requires the installation of EV recharging infrastructure
- Develop the CNG refuelling network to support the uptake of CNG vehicles

The implementation of these regulations will implement two of the measures of Action 74 of the Climate Action Plan to "ensure our regulatory regime for buildings requires the installation of EV recharging infrastructure" and is a key action in making progress to achieve this target.

2.3 Current Recharging Infrastructure in Ireland

The National Policy Framework: Alternative Fuels Infrastructure for Transport in Ireland 2017 to 2030 sets out the needs for private and public recharging in Ireland. Although the existing capacity of the recharging network is considered adequate, development of infrastructure to meet the growing demand is necessary. The Framework sets out the growth profile of public and private recharging infrastructure in the period out to 2030. As part of the LEV Taskforce's work, the types of recharging infrastructure and potential

[1] Section 4.3 of Climate Action Plan , Figure 4.4 - https://www.dccae.gov.ie/documents/Climate%20Action%20Plan%202019.pdf
[2] Actions 72-76 of section 10.4 in the Climate Action Plan - https://www.dccae.gov.ie/documents/Climate%20Action%20Plan%202019.pdf

ownership models were examined. EV recharging has been considered across the following four categories:

- Home recharging;
- On-street recharging;
- Location/ destination recharging; and
- Fast recharging.

Home recharging is considered the primary method of recharging for the majority of EVs in Ireland. Recharging at home at night is a very cost-effective way to recharge an EV and it also has benefits for the electricity system as demand is generally low at these times. The provision of home rechargers in apartment blocks or other residential areas, where shared private parking is provided, remains challenging due to the lack of dedicated parking and the sharing of costs between residents. The most cost-effective method of installing such infrastructure is during initial construction or when refurbishment work is being carried out.

3. Purpose and Objectives

When we establish the requirements for the installation of a minimum number of recharging points for non-residential buildings with more than 20 parking spaces, which are to apply from 2025, we will take into account relevant national, regional and local conditions, as well as possible diversified needs and circumstances based on area, building typology, public transport coverage and other relevant criteria, in order to ensure the proportionate and appropriate deployment of recharging points.

All of this will ensure the development of electro mobility and associated infrastructure will continue in a balanced and constructive way.

Furthermore the proposal to amend Part L of the Building Regulations is necessitated by the mandatory requirements of the Energy Performance of Buildings Directive in respect of electric vehicle recharging infrastructure.

4. Options

Two options have been identified: -

- **Option 1** - Do nothing
- **Option 2** – Adopt mandatory measures contained in the Directive

(A) Option 1 – Do Nothing

Whilst there would be no additional costs associated with this option, there would be no benefits either. In addition, failing to meet the requirements of the EPBD would have adverse implications for sustainable development and would inevitably lead to necessary consideration by Government of alternative interventions to make up the resultant shortfall against existing commitments.

Moreover, the recast Energy Performance of Buildings Directive requires member states to introduce the requirements outlined above.

The Directive does not permit member states discretion to derogate from these measures in their national building regulations and therefore this is not considered a viable option. In addition DHPLG has committed to these measures in the All of Government Climate Action Plan to Tackle Climate Breakdown.

(B) Option 2 – Adopt Appropriate Mandatory Measures contained in the Directive

Given that Option 1 has the potential to leave Ireland exposed to an infringement action by the European Commission, Option 2 is the preferred option as it is the most effective method of transposing the requirements of the Directive and delivering on our commitments as outlined above.

The amended Building Regulations – Part L and associated TGD L, and the proposed ECA Regulations will stipulate that the minimum requirements of the directive are adopted.

5. Public Consultation

The proposed amendments to Part L which are required by the Energy Performance of Buildings Directive have been preceded by a comprehensive inter-agency consultation process involving close contact between the Department of Housing, Planning, and Local Government, the Department of Communications, Climate Action and Environment, the Sustainable Energy Authority of Ireland (SEAI), the Office of Public Works, the Department of Education and Skills, the National Standards Authority of Ireland I.S. 10101 Technical Committee, the Health Services Executive, and the National Disability Authority (NDA).

A stakeholder meeting was hosted in the Custom House on 30th September with members of the Construction Industry Council which consists of representatives from the following professional and industry bodies:

- The Building Materials Federation
- Association of Consulting Engineers in Ireland
- The Construction Industry Federation
- Engineers Ireland
- The Royal Institute of the Architects of Ireland
- The Society of Chartered Surveyors Ireland
- Chartered Institution of Building Services Engineers

Also in attendance were representatives of the Office of Public Works, the Health Service Executive, National Standards Authority of Ireland, Irish Green Building Council and the National Disability Authority.

At this meeting a high level presentation of the proposed changes to Part L of the Building Regulations and the European Communities Act (ECA) was outlined, including proposed transitional arrangements.

6. Who will be affected?

The following stakeholders will be directly affected by the proposed requirements:

- Building Professionals
- Assigned Certifiers
- Developers and Builders
- Public Sector
- Construction product/ systems manufacturers
- Industry Suppliers
- Building Control Authorities
- Education Bodies
- Training Bodies

The amended Part L/ TGD L requirements and the ECA requirements should also contribute to achieving national CO_2 emission reduction targets and thus help address Ireland's international CO_2 commitments.

7. Regulatory Changes

The introduction of EV recharging requirements for new buildings, buildings undergoing major renovation and existing buildings as set out in the Energy Performance of Buildings Directive is summarized in the table below:

Table 1 – EV recharging requirements

Scope		MS obligation
New buildings and buildings undergoing **major renovation**	**Non-residential** buildings with more than 10 parking spaces	Ensure the installation of **at least 1 recharging point** Ensure the installation of **ducting infrastructure for at least 1 in 5 parking spaces**
	Residential multi-unit buildings	Ensure the installation of **ducting infrastructure for every parking space**
New buildings	**New dwelling with car parking space located within the dwelling curtilage**	Ensure the installation of **appropriate infrastructure**, to enable the installation at a later stage of a recharging point for electric vehicles
Existing buildings	**Non-residential** all buildings with more than 20 parking spaces	Lay down requirements for the **installation of a minimum number of recharging points** – applicable from 2025

In implementing the above requirements, provisions are included for disability access in accordance with Part M for new buildings.

The guidance in TGD L also provides for future space requirements for duct sizing and electrical distribution to ensure that any infrastructure installed during construction works is practical to use at a later date.

Specification for EV recharging points are set in accordance with I.S. 10101.

Articles 8(3), 14(4) and 15(4) set requirements for existing buildings to have EV recharging points and Building Automation and Control systems to be installed by 2025.

These Articles will be transposed under the European Communities Act 1972.

It will be the responsibility of the building owner or occupier to ensure that existing buildings are upgraded with the required EV recharging points and Building Automation and Control systems by 2025.

8. Costs

The costs of the EV recharging infrastructure requirements vary depending on the requirement and the existing infrastructure. Cost estimates carried out by the Professional Quantity Surveying unit of DHPLG have found that the proposed changes to EV Infrastructure are marginal relative to overall construction costs and are in the order of 0.04% to 0.23% (See **Tables 2 and 3** below).

The cost impact on a new apartment block with 100 car parking spaces for EV recharging infrastructure is in the order of 0.04% which equates to an approximate cost of €100 per apartment for a building with 100 apartments or approximately €10,000 for the building.

The cost impact for a typical new dwelling with a car packing space within its curtilage is in the order of 0.04% to 0.06% which equates to an approximate cost of €120 - to €150 per dwelling.

The cost impact on a new non-residential building for EV recharging infrastructure with a surface carpark of 100 spaces is 0.23% or approximately €10,000 for the building.

Costs provided are indicative and are for a notional building with 100 car parking spaces. Costs will vary depending on building type, size and location.

The cost impact to non-residential buildings with more than 20 car parking spaces ranges from €1,000 to €3,500. As small to medium enterprises are exempt from this requirement, the cost will only apply to large enterprises. The category of micro, small and medium-sized enterprises (SMEs) is made up of enterprises which employ fewer than 250 persons and which have an annual turnover not exceeding €50 million, and/ or an annual balance sheet total not exceeding €43 million.

Table 2 – EV Recharging Infrastructure Residential – Order of Magnitude Costs

Description	Range - Total Costs	
New Surface Car Park Residential notional 100 spaces, provide ducting infrastructure for 100 spaces.	€25,000	€30,000
Works to provide infrastructure for EV recharging points as a percentage of proposed notional development of 100 apartments.	0.1%	
Description	**Range – Total Costs**	
Major Renovation / Existing Surface Car Park Residential notional 100 spaces, provide ducting infrastructure for 100 spaces.	€32,500	€37,500
Description	**Range – Total Costs**	
Basement Car Park Residential notional 100 spaces, provide ducting infrastructure for 100 spaces.	€9,500	€10,500
Works to provide infrastructure for EV recharging points as a percentage of proposed notional development of 100 apartments.	0.04%	
Description	Range – Total Costs (per dwelling)	
New dwelling with car parking space located within the dwelling curtilage	€120 - €150	
Works to install infrastructure to enable the installation at a later stage of a recharging point for electric vehicles	0.04% - 0.06%	

Table 3 – EV Recharging Infrastructure non-Residential – Order of Magnitude Costs

Description	Range – Total Costs	
New Surface Car Park Non-Residential (incl. VAT) 100 spaces, 1 recharging point, ducting infrastructure for 20 spaces.	€9,000	€12,000
Works to provide infrastructure for EV recharging points as a percentage of proposed notional non-residential building	0.18%	
Description	Range – Total Costs	
Major Renovation / Existing Surface Car Park Non-Residential (incl. VAT) 100 spaces, 1 recharging point, ducting infrastructure for 20 spaces.	€12,000	€14,000
Description	Range – Total Costs	
Basement Car Park Non-Residential (incl. VAT) 100 spaces, 1 recharging point, ducting infrastructure for 20 spaces.	€4,000	€6,500
Works to provide infrastructure for EV recharging points as a percentage of proposed notional non-residential building (based on an assumed construction cost of €9m)	0.06%	
Description	Range – Total Costs	
Non-residential buildings with more than 20 parking spaces = 1 recharging point.	€1,000	€3,500

The cost of BACs to non-residential buildings by 2025 with large air-conditioning or heating loads will be approximately €20,000 for a medium sized office or hotel. DHPLG/ SEAI will publish a methodology to provide for where this is not economically feasible through a payback evaluation.

9. Other Impacts

Impact on Construction Industry Skills Level

I.S. 10101 has been updated by NSAI to include requirements for EV recharging points. Electrical contractors will be able to install recharging points in line with this standard, and other than manufacturers requirements, no new skills are required. Provisions in this standard for EV recharging will be integrated into electrical apprenticeship training.

Impact on Supply Chain

SEAI already provide a grant for the installation of EV recharging points and capacity building has taken place through the provision of this grant.

It is expected that companies that sell electric charge for EV rechargers will support the installation of EV rechargers.

Impact on National Competitiveness

There will be no negative impact on Ireland's competitiveness. If anything, the amended Building Regulations are likely to encourage Irish business and industry to develop new innovative energy saving products and systems. This will provide opportunities to reduce the need to import such technologies and may provide export opportunities in future years.

The contribution towards the achievement of national CO_2 emission reduction targets and the reduced dependence on imported energy will improve the overall efficiency and competitiveness of the Irish economy.

Compliance/ Regulatory Burden

It is generally accepted in the industry that regulatory requirements, national and European standards, as well as codes of practice evolve over time in light of technological advancements, new product developments and changes in construction practices.

It is not anticipated that there will be any significant impact on design and supervision fees or a compliance burden associated with the additional conformity-checking that the amended Building Regulations will impose on Building Control Authorities and Assigned Certifiers.

Assigned Certifiers

The Assigned Certifier, in accordance with the Building Control (Amendment) Regulations 2014 (S.I. No. 9 of 2014), must certify (jointly with the builder) that the construction works are in compliance with the new Part L of the Building Regulations upon completion.

Competition Assessment

There are no significant areas where issues of competition, restriction or imbalance have been identified. The Department considers that the proposed legislation would have no significant effect on competition in any market. It is considered that the proposals to implement the regulations apply in a proportionate and equitable way.

10. Enforcement and Compliance

Under the Building Control Act 1990, enforcement of the Building Regulations 1997 to 2019 is the responsibility of the 31 local building control authorities who have a broad range of powers under the Act to investigate and, where appropriate, take action in the event that non-compliances are identified in buildings.

The Building Control Regulations 1997 to 2018 set out the system of administrative controls to support compliance with the Building Regulations by requiring, inter alia, the submission of Commencement Notices, Fire Safety Certificates, Disability Access Certificates and the more recent Certificates of Compliance on Completion (introduced under S.I. No. 9 of 2014 which came into effect on 1 March 2014).

Responsibility for compliance with the requirements of the Building Regulations 1997 to 2019 is primarily a matter for the owners, designers and builders of buildings.

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