



Rialtas na hÉireann
Government of Ireland

IBCI Conference 2022

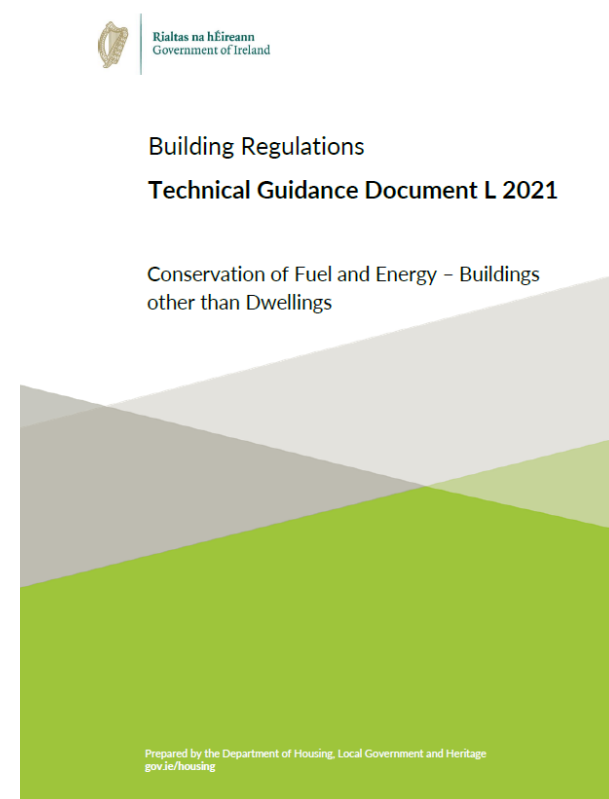
European Union (Energy Performance of
Buildings) Regulations 2021 (S.I. No. 393 of
2021)

Edel Murray

Climate Action Policy and Construction Industry Regulation Unit

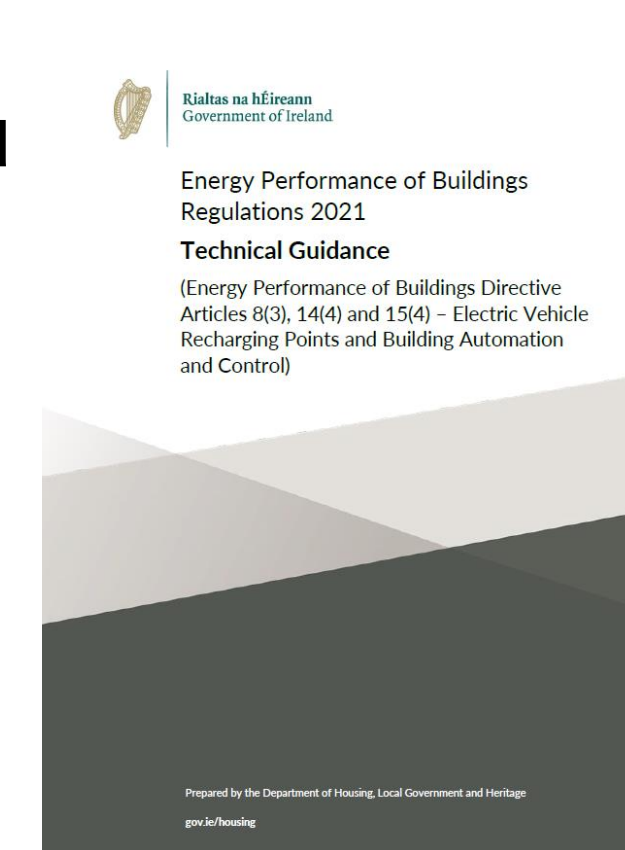
31st March 2022

Webinar Overview

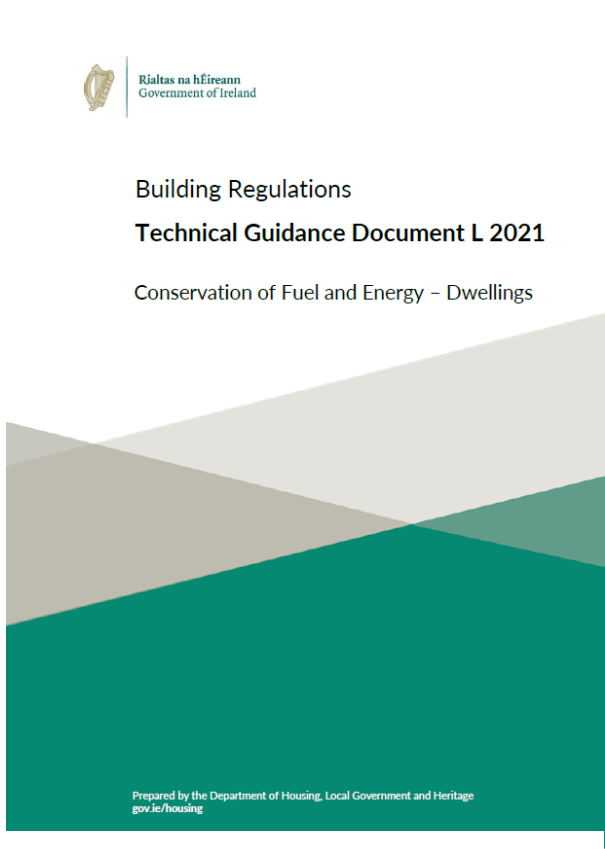


This webinar outlines the requirements of the **European Union (Energy Performance of Buildings) Regulations 2021 (S.I. No. 393 of 2021)** which transpose **Article 8(1(in part), 2, 3 and 5); Article 14(4); and Article 15(4)** of amending **Directive 2018/844** of the European Parliament and of the Council on the energy performance of buildings. A summary of the requirements is listed below:

- Requirement to install **self-regulating devices**.
- Requirement for **new buildings** and **buildings undergoing major renovation** with more than **10 car parking spaces** to install **electric vehicle recharging infrastructure**.
- Requirement for **existing non-residential buildings** with more than **20 car parking spaces** to install at least **one recharging point**.
- Requirement for **existing non-residential buildings** to install Building Automation and Control systems (**BACs**) in buildings **with heating and air-conditioning systems**, which have an **effective rated output** above a threshold of **290 kilowatts**.



Webinar Overview

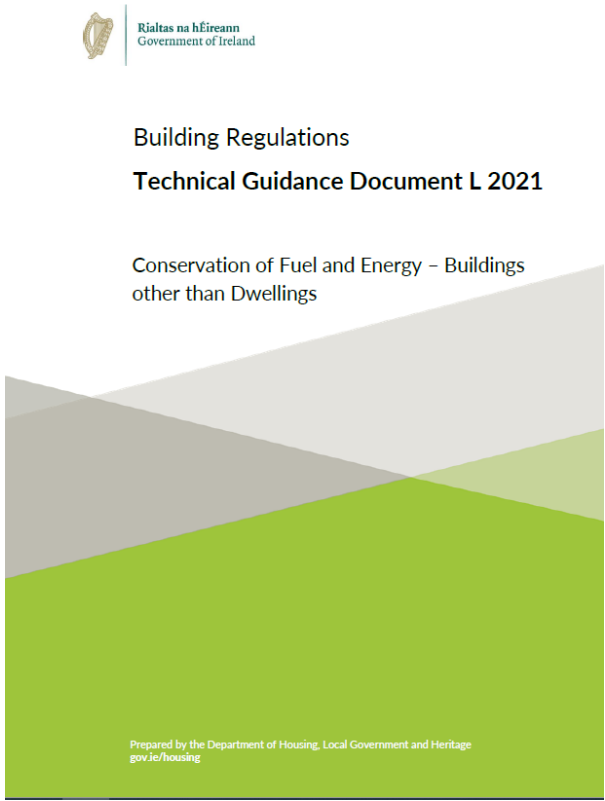
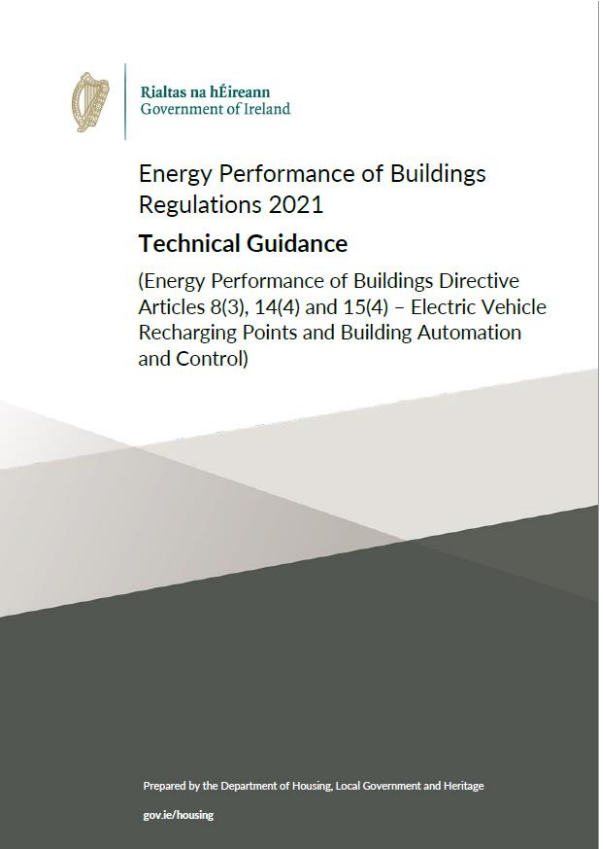


Self-regulating Devices:

- Self-regulating Devices EPBD Requirement
- TGD L 2021 Buildings other than Dwellings
- TGD L 2021 Dwellings

EV Recharging Infrastructure:

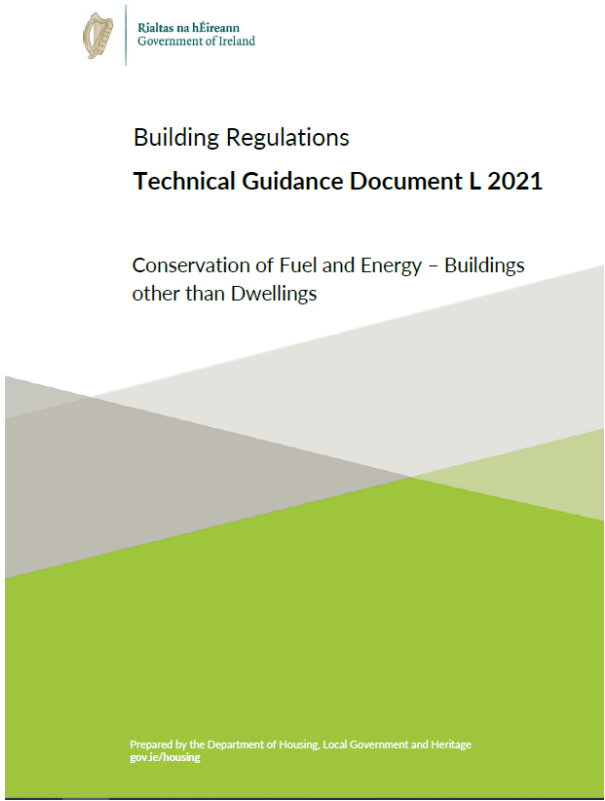
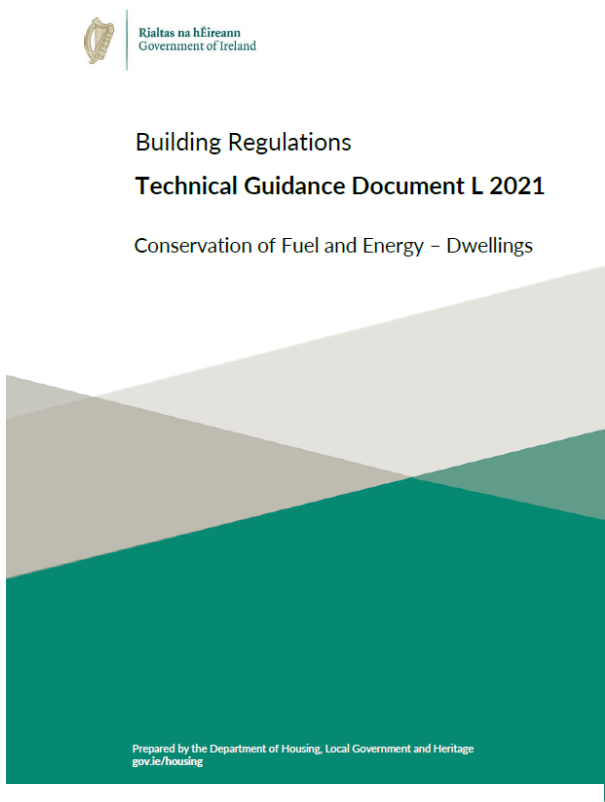
- EV EPBD Requirement
- TGD L 2021 Buildings other than Dwellings
- TGD L 2021 Dwellings
- Energy Performance of Buildings Regulations 2021 Technical Guidance



Building Automation & Control Systems

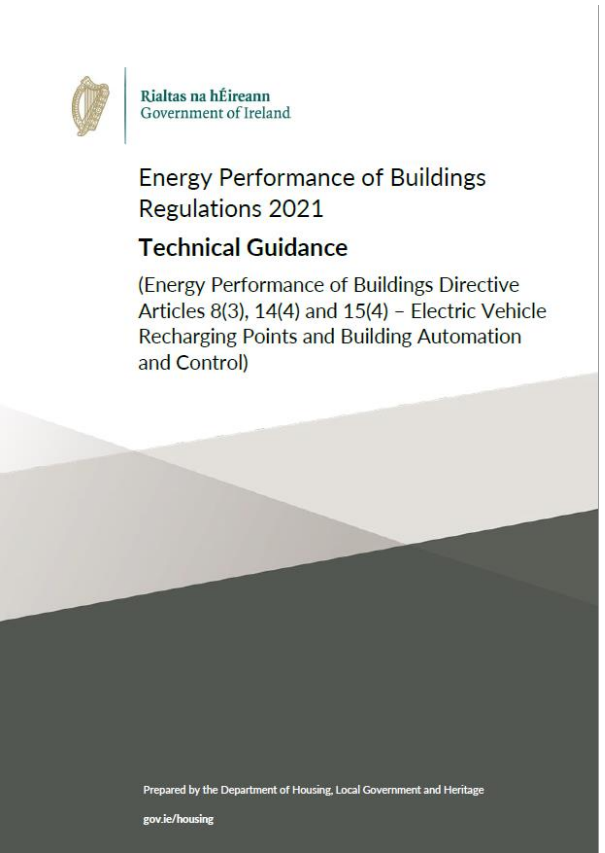
- BACs EPBD Requirement
- Energy Performance of Buildings Regulations 2021 Technical Guidance

Energy Performance of Buildings Regulations



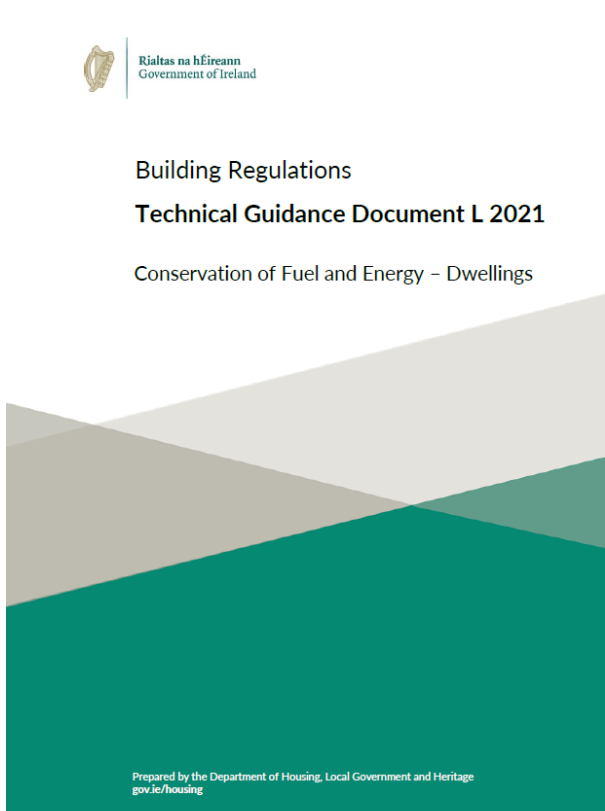
Energy Performance of Buildings Regulations 2021 (S.I. No. 393 of 2021)

- **Building Regulations TGD L 2021** Conservation of Fuel and Energy – Dwellings
- **Building Regulations TGD L 2021** Conservation of Fuel and Energy – Buildings other than Dwellings
- **Energy Performance of Buildings Regulations 2021 Technical Guidance**
 - Published: July 27th 2021
 - Application: July 27th 2021 (subject to some exclusions and transitional arrangements)
 - Provides guidance on Self-regulating Devices, EV Recharging Infrastructure, and Building Automation and Control Systems (BACs)
- **Consultation with Stakeholders:**
 - Public Consultation and Regulatory Impact Analysis Dec. 5th 2019 – Feb. 5th 2020.
 - Public Bodies: DECC, OPW, DoES, HSE, SEAI, NSAI, NDA
 - Stakeholder Meeting: RIAI, SCS, EI, ACEI, CIF, CIBSE, IGBC, IBEC, ESB



Energy Performance of Buildings Amending Directive 2018/844 - Implementation

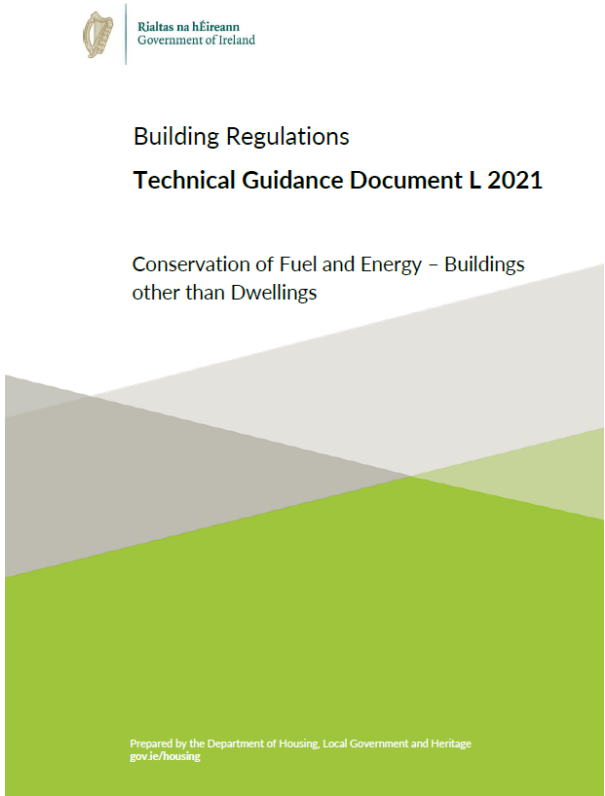
Self-regulating Devices



EPBD Self-regulating Devices Requirement Residential and Non-Residential Buildings

- **Article 8(1)**

Member States shall require **new buildings**, where technically and economically feasible, **to be equipped with self-regulating devices** for the separate regulation of the temperature in each room or, where justified, in a designated heated zone of the building unit. In **existing buildings**, the **installation of such self-regulating devices** shall be required **when heat generators are replaced**, where technically and economically feasible.



Energy Performance of Buildings Amending Directive 2018/844

Self-regulating Devices



TGD L 2021 - Dwellings

The Requirement – Regulation 5(a) and 5(b)

Regulation 5

- (a) A new building shall, where technically and economically feasible, be equipped with self-regulating devices for the separate regulation of the temperature in each room or, where justified, in a designated heated zone of the building unit.
- (b) Where a heat generator is being replaced in an existing building, where technically and economically feasible, self-regulating devices shall also be installed.

Section 0.5 – Definitions

Self-regulating Devices: self-regulating devices provide for the separate regulation of the temperature in each room or in a designated heated zone of the dwelling.

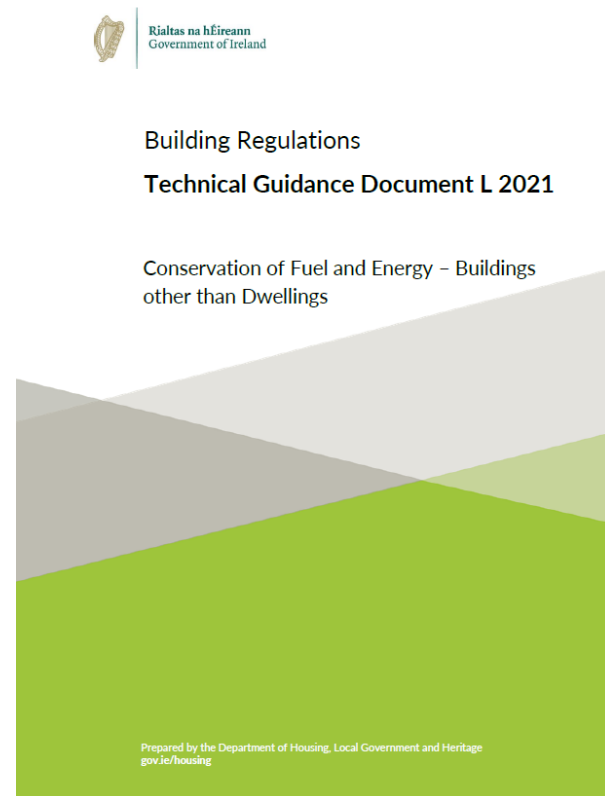
Paragraph 1.4.1.1 – New Dwellings Provisions outlined

Paragraph 2.2.1.1 – Existing Dwellings Provisions outlined

Paragraph 2.2.1.2 – Existing Dwellings Guidance on Technical and Economic Feasibility

Energy Performance of Buildings Regulations 2021

Self-regulating Devices



TGD L 2021 – Buildings other than Dwellings

The Requirement – Regulation 5(a) and 5(b)

Regulation 5

- (a) A new building shall, where technically and economically feasible, be equipped with self-regulating devices for the separate regulation of the temperature in each room or, where justified, in a designated heated zone of the building unit.
- (b) Where a heat generator is being replaced in an existing building, where technically and economically feasible, self-regulating devices shall also be installed.

Section 0.5 – Definitions

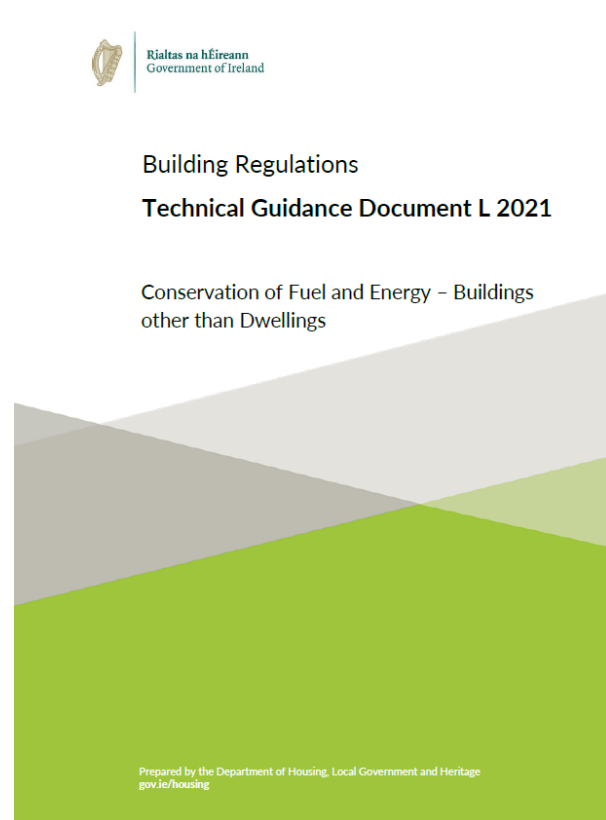
Self-regulating Devices: self-regulating devices provide for the separate regulation of the temperature in each room or in a designated heated zone of the building.

Paragraph 1.4.2.2 and 1.4.4.1 – New Buildings other than Dwellings Provisions outlined

Paragraph 2.2.3.2 and 2.2.5.1 – Existing Buildings other than Dwellings Provisions outlined

Energy Performance of Buildings Regulations 2021

Electric Vehicle Recharging Infrastructure



EPBD Electrical Vehicle Recharging Infrastructure Requirement Non-Residential Buildings

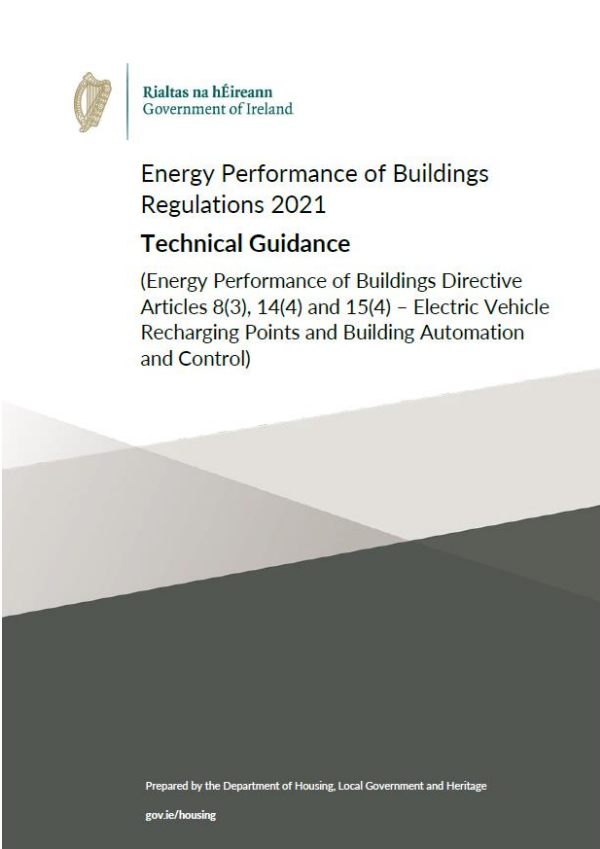
- **Article 8(2)**

With regard to **new non-residential buildings** and **non-residential buildings undergoing major renovation**, with **more than ten parking spaces**, Member States shall ensure the **installation of at least one recharging point within the meaning of Directive 2014/94/EU of the European Parliament and of the Council and ducting infrastructure**, namely conduits for electric cables, **for at least one in every five parking spaces** to enable the installation at a later stage of recharging points for electric vehicles where:

- (a) the **car park is located inside the building**, and, **for major renovations, renovation measures include the car park or the electrical infrastructure of the building**; or
- (b) the **car park is physically adjacent to the building**, and, **for major renovations, renovation measures include the car park or the electrical infrastructure of the car park**.

Energy Performance of Buildings Amending Directive 2018/844

Electric Vehicle Recharging Infrastructure



EPBD Electrical Vehicle Recharging Infrastructure Requirement Non-Residential Buildings

- **Article 8(3)**

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.

Energy Performance of Buildings Amending Directive 2018/844

Electric Vehicle Recharging Infrastructure



EPBD Electrical Vehicle Recharging Infrastructure Requirement Residential Buildings

- **Article 8(5)**

With regard to **new residential buildings** and **residential buildings undergoing major renovation**, with **more than ten parking spaces**, Member States shall ensure the **installation of ducting infrastructure**, namely conduits for electric cables, **for every parking space** to enable the installation, at a later stage, of recharging points for electric vehicles, where:

- (a) the **car park is located inside the building**, and, **for major renovations**, renovation measures include the **car park** or the **electrical infrastructure of the building**; or
- (b) the **car park is physically adjacent to the building**, and, **for major renovations**, renovation measures include the **car park** or the **electrical infrastructure of the car park**.

Energy Performance of Buildings Amending Directive 2018/844

Electric Vehicle Recharging Infrastructure



 Building Regulations Technical Guidance Document L 2021 Conservation of Fuel and Energy – Dwellings  Building Regulations Technical Guidance Document L 2021 Conservation of Fuel and Energy – Buildings other than Dwellings		 Energy Performance of Buildings Regulations 2021 Technical Guidance (Energy Performance of Buildings Directive Articles 8(3), 14(4) and 15(4) – Electric Vehicle Recharging Points and Building Automation and Control)	
Scope		MS Obligation	
New Buildings and	Non-residential buildings with more than 10 no. parking spaces	- Ensure the installation of at least 1 no. recharging point - Ensure the installation of ducting infrastructure for at least 1 in 5 no. parking spaces	
	Buildings undergoing Major Renovation	Ensure the installation of ducting infrastructure for every parking space	
Existing Buildings *		Lay down requirement for the installation of a minimum number of recharging points – applicable from 2025	

Energy Performance of Buildings Amending Directive 2018/844

Electric Vehicle Recharging Infrastructure



TGD L 2021 - Dwellings

Section 1 New Buildings:

Regulation 5(f)

(f) A new building (containing one, or more than one, dwelling), which has more than 10 car parking spaces, shall have installed ducting infrastructure (consisting of conduits for electric cables) for each car parking space to enable the subsequent installation of recharging points for electric vehicles.

Sub-section 1.4.6 – Electric Vehicle Recharging Infrastructure

Paragraph 1.4.6.1 – Provisions outlined

Paragraph 1.4.6.2 – Ducting Infrastructure guidance

Transitional Arrangements

Regulation 5(f) **shall not apply** to a building where the submission of a notice has been made in respect of the building work concerned **on or before 10 March 2021**. Where the **submission of a notice** has been made **on or after 11 March 2021** then the requirements of **Regulation 5(f)** apply.

Energy Performance of Buildings Regulations 2021

Electric Vehicle Recharging Infrastructure



Building Regulations
Technical Guidance Document L 2021
Conservation of Fuel and Energy – Dwellings

TGD L 2021 - Dwellings

Section 2 Existing Buildings:

Regulation – 5(f) and 5(g)

- (f) A building (containing one, or more than one, dwelling), which has more than 10 car parking spaces, that is subject to subparagraph (g), undergoing major renovation, shall have installed ducting infrastructure (consisting of conduits for electric cables) for each car parking space to enable the subsequent installation of recharging points for electric vehicles.
- (g) The requirements of subparagraph (f) shall apply to a building undergoing major renovation where:
- (i) in a case where the car park is located inside the building, the renovations concerned include the car park or the electrical infrastructure of the building; or
 - (ii) in a case where the car park is physically adjacent to the building, the renovations concerned include the car park or the electrical infrastructure of the car park.

Energy Performance of Buildings Regulations 2021

Electric Vehicle Recharging Infrastructure



TGD L 2021 - Dwellings

Section 2 Existing Buildings:

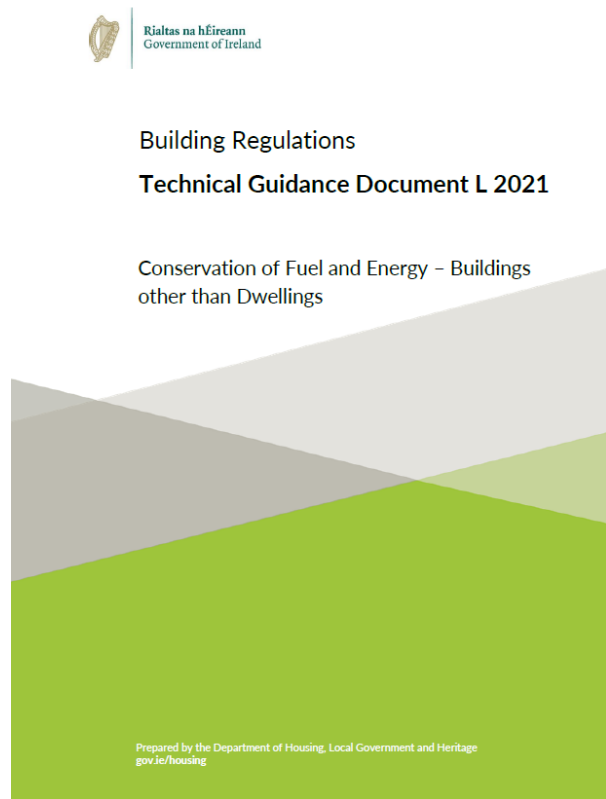
Sub-section 2.3.9 – Electric Vehicle Recharging Infrastructure

Paragraph 2.3.9.1 – Provisions outlined

Paragraph 2.3.9.2 – Ducting Infrastructure guidance

Energy Performance of Buildings Regulations 2021

Electric Vehicle Recharging Infrastructure



TGD L 2021 - Buildings other than Dwellings

Section 1 New Buildings:

Regulation 5(e)

(e) A new building, which has more than 10 car parking spaces, shall have installed at least one recharging point and ducting infrastructure (consisting of conduits for electric cables) for at least one in every 5 car parking spaces to enable the subsequent installation of recharging points for electric vehicles.

Sub-section 1.4.7 – Electric Vehicle Recharging Infrastructure

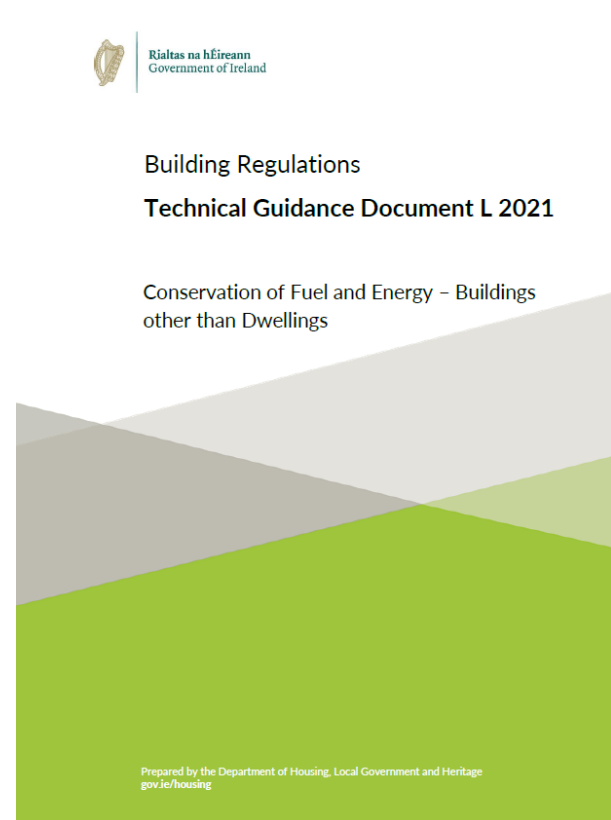
Paragraph 1.4.7.1 & 1.4.7.2 – Provisions outlined

Paragraph 1.4.7.3 – Recharging Points guidance

Paragraph 1.4.7.4 – Ducting Infrastructure guidance

Energy Performance of Buildings Regulations 2021

Electric Vehicle Recharging Infrastructure



TGD L 2021 - Buildings other than Dwellings

Section 1 New Buildings:

Transitional Arrangements

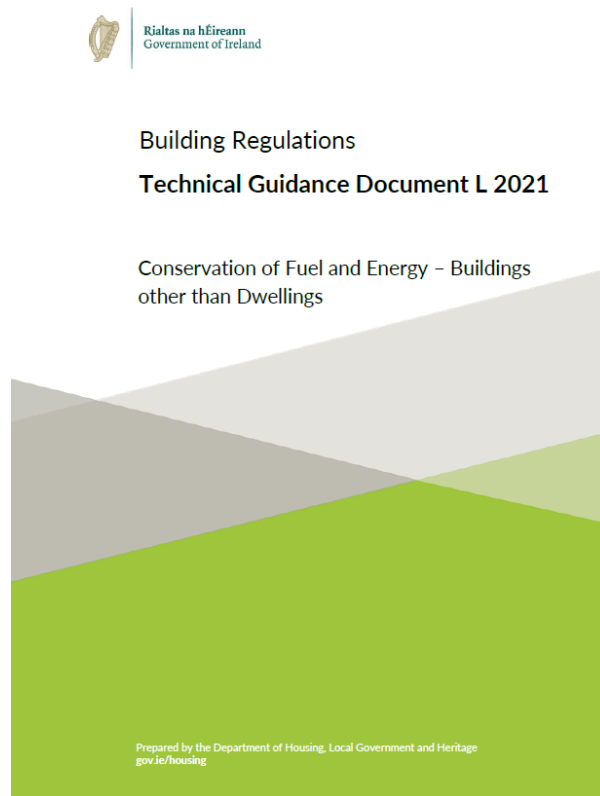
Regulation 5(e) shall not apply to a building:

- where the **submission of a notice** has been made in respect of the building work concerned **on or before 10 March 2021**, or
- that is **owned and occupied by**, as the case may be, a **small or medium-sized enterprise**.

Where the **submission of a notice** has been made **on or after 11 March 2021** then the requirements of **Regulation 5(e)** apply.

Energy Performance of Buildings Regulations 2021

Electric Vehicle Recharging Infrastructure



TGD L 2021 - Buildings other than Dwellings

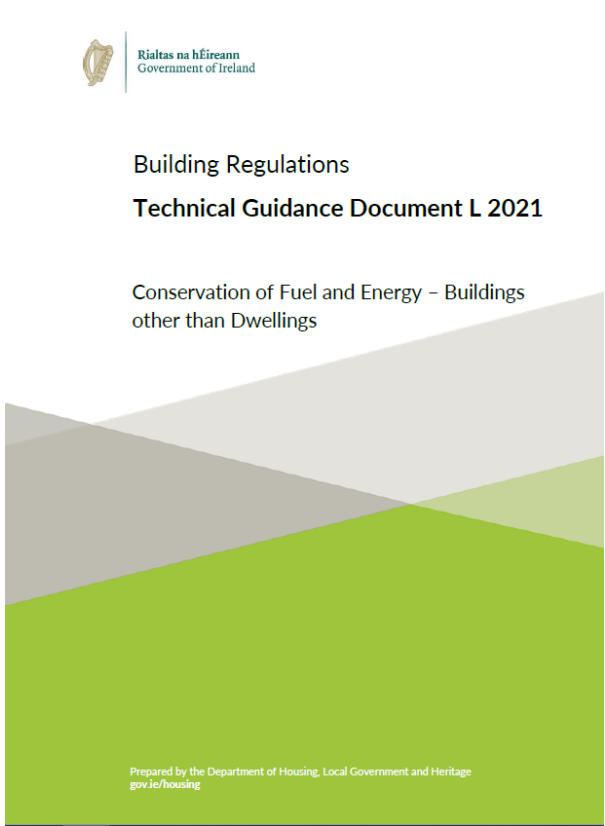
Section 2 Existing Buildings:

Regulation 5(e) and 5(g):

- (e) A building which has more than 10 car parking spaces, that is subject to subparagraph (g), undergoing major renovation, shall have installed at least one recharging point and ducting infrastructure (consisting of conduits for electric cables) for at least one in every 5 car parking spaces to enable the subsequent installation of recharging points for electric vehicles.
- (g) The requirements of subparagraph (e) shall apply to a building undergoing major renovation where:
 - (i) in a case where the car park is located inside the building, the renovations concerned include the car park or the electrical infrastructure of the building; or
 - (ii) in a case where the car park is physically adjacent to the building, the renovations concerned include the car park or the electrical infrastructure of the car park.

Energy Performance of Buildings Regulations 2021

Electric Vehicle Recharging Infrastructure



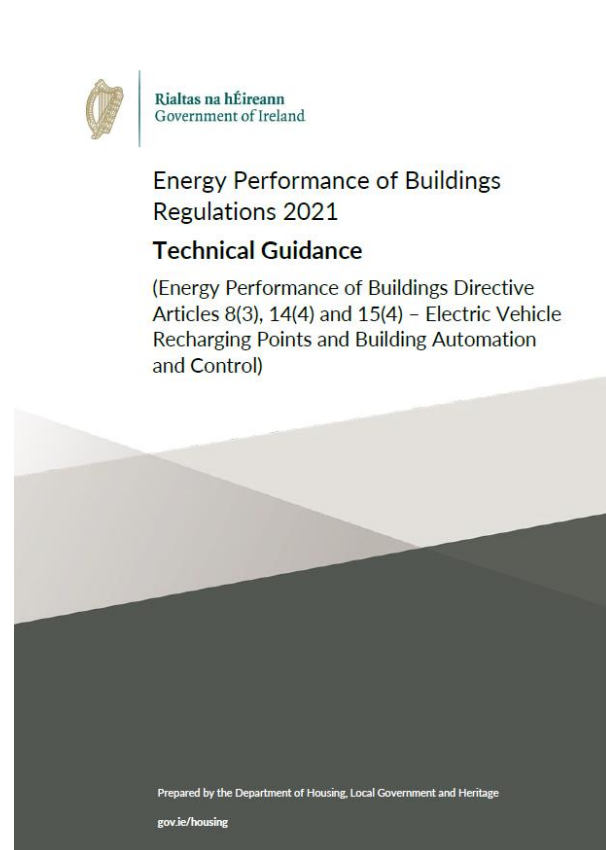
TGD L 2021 - Buildings other than Dwellings Section 2 Existing Buildings:

Sub-section 2.3.6 – Electric Vehicle Recharging Infrastructure

Paragraph 2.3.6.1, 2.3.6.2, 2.3.6.3 & 2.3.6.4 – Provisions outlined

Energy Performance of Buildings Regulations 2021

Electric Vehicle Recharging Infrastructure



Energy Performance of Buildings Regulations 2021 - Technical Guidance

Existing Buildings – 2025 Provision:

Regulation 5(d)

Regulation 5(d)
In respect of an existing building (other than a dwelling) with more than 20 car parking spaces, there shall be installed, before 1 January 2025, one, or more, recharging points.

Section 2.0 – Electric Vehicle Recharging Infrastructure

Paragraph 2.1.1 – Provisions outlined

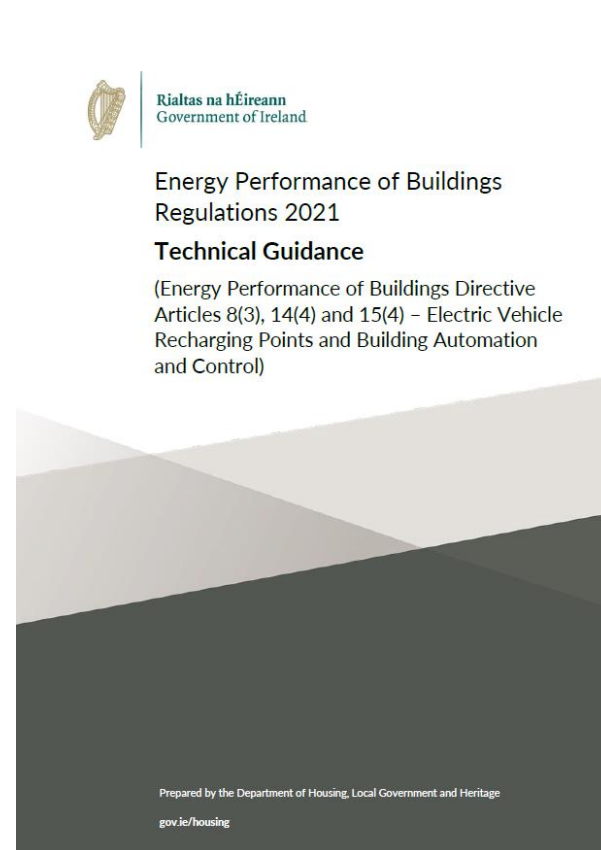
Paragraph 2.1.2 – Recharging Points guidance

Exclusion of Certain Buildings

The requirement set out in subparagraph (d) of Regulation 5 **shall not apply to a building** that is **owned and occupied by**, as the case may be, a **small or medium-sized enterprise**.

Energy Performance of Buildings Regulations 2021

Building Automation and Control Systems



EPBD Building Automation and Control Systems Existing Non-Residential Buildings – 2025 Provision:

- **Article 14(4)**

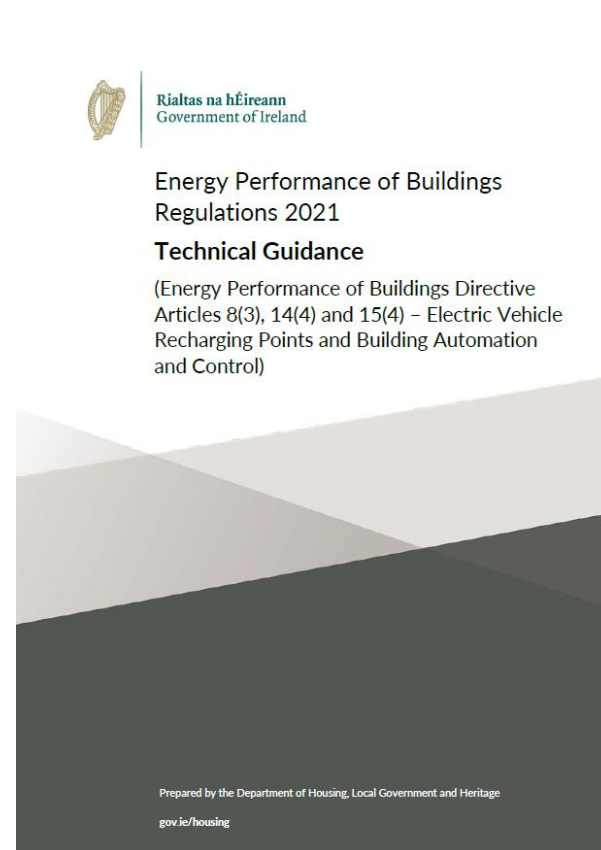
Member States shall lay down requirements to ensure that, where technically and economically feasible, **non-residential buildings** with an **effective rated output for heating systems or systems for combined space heating and ventilation** of over **290kW** are **equipped with building automation and control systems** by **2025**.

- **Article 15(4)**

Member States shall lay down requirements to ensure that, where technically and economically feasible, **non-residential buildings** with an **effective rated output for air-conditioning or systems for combined air-conditioning and ventilation** of over **290kW** are **equipped with building automation and control systems** by **2025**.

Energy Performance of Buildings Amending Directive 2018/844

Building Automation and Control Systems



EPBD Building Automation and Control Systems Existing Non-Residential Buildings – 2025 Provision:

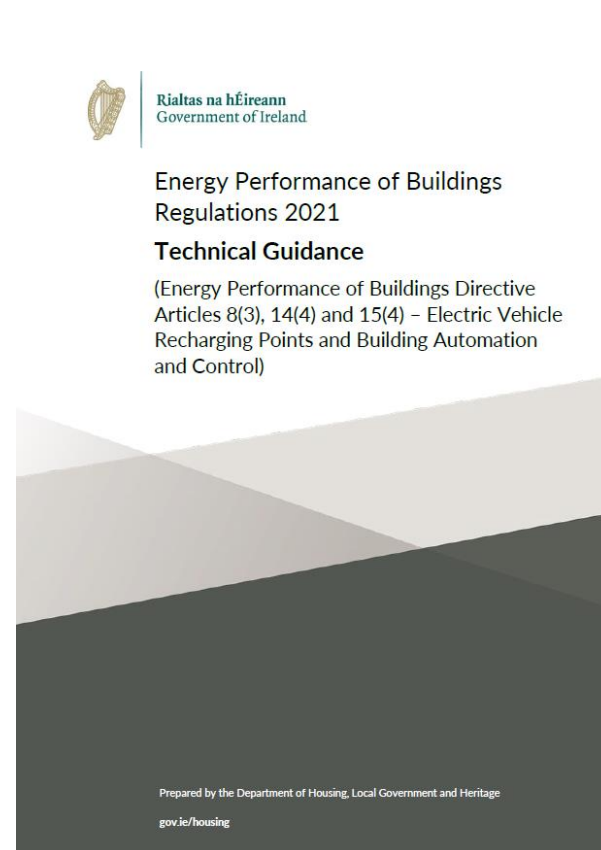
- **Articles 14(4) & 15(4)**

The building automation and control systems shall be capable of:

- (a) continuously **monitoring, logging, analysing** and allowing for **adjusting energy use**;
- (b) **benchmarking the buildings energy efficiency, detecting losses** in efficiency of technical building systems, and **informing the person responsible** for the facilities or technical building management **about opportunities for energy efficiency improvement**; and
- (c) **allowing communication with connected technical building systems** and other appliances inside the building, and being **interoperable with technical building systems** across different types of proprietary technologies, devices and manufacturers.

Energy Performance of Buildings Amending Directive 2018/844

Building Automation and Control Systems



EPBD Building Automation and Control Systems Existing Non-Residential Buildings – 2025 Provision:

EPBD Definitions

Building Automation and Control System: means a system comprising all products, software and engineering services that can support energy efficient, economical and safe operation of technical building systems through automatic controls and by facilitating the manual management of those technical building systems.

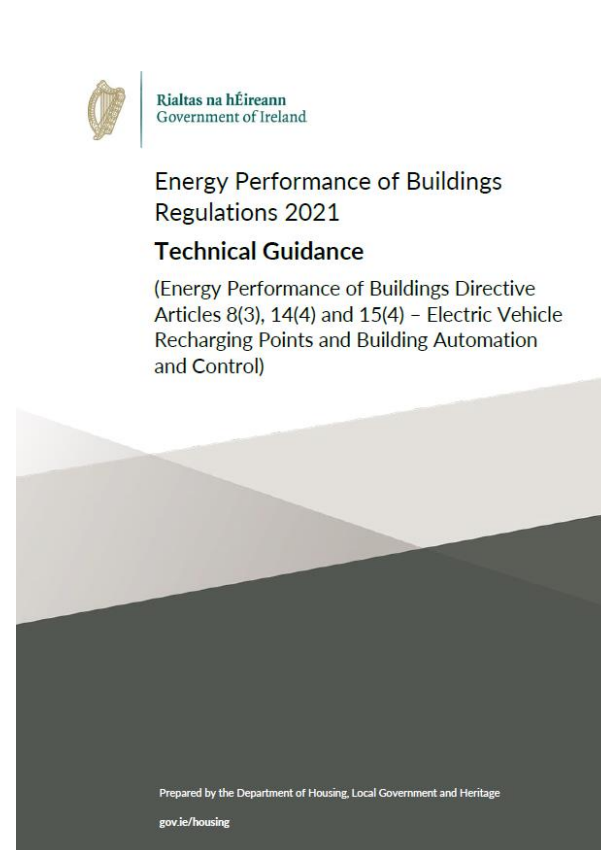
Effective rated output: means the maximum calorific output, expressed in kW, specified and guaranteed by the manufacturer as being deliverable during continuous operation while complying with the useful efficiency indicated by the manufacturer.

Heating System: means a combination of the components required to provide a form of indoor air treatment, by which the temperature is increased.

Air-conditioning system: means a combination of the components required to provide a form of indoor air treatment, by which temperature is controlled or can be lowered.

Energy Performance of Buildings Amending Directive 2018/844

Building Automation and Control Systems



Energy Performance of Buildings Regulations 2021 - Technical Guidance

Existing Non-residential Buildings – 2025 Provision:

Regulation 5(c)

Regulation 5(c)

An existing building (other than a dwelling) shall, before 31 December 2025, where technically and economically feasible, be equipped with a building automation and control system if:

- (i) the effective rated output for heating systems or systems for combined space heating and ventilation in the building is over 290kW; or
- (ii) the effective rated output for systems for air-conditioning or systems for combined air-conditioning and ventilation in the building is over 290kW.

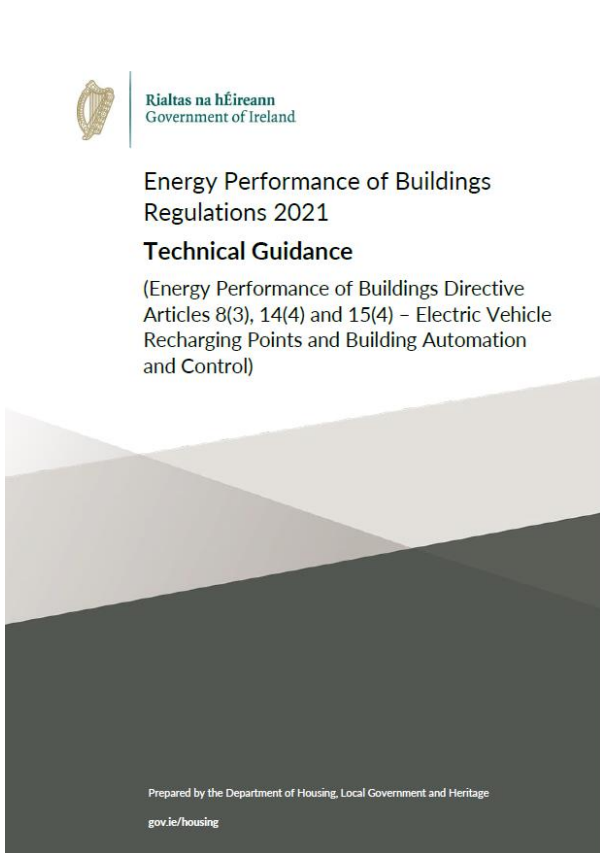
Section 1.0 – Building Automation and Control Systems (BACs)

Paragraph 1.1.1 – Heating System Provisions outlined

Paragraph 1.1.2 – Air-conditioning System Provisions outlined

Energy Performance of Buildings Regulations 2021

Building Automation and Control Systems



Energy Performance of Buildings Regulations 2021 - Technical Guidance Existing Non-residential Buildings – 2025 Provision:

Paragraphs 1.1.3, 1.1.4, 1.1.5 – Application of 290kW threshold

Paragraph 1.1.6 – Combined Heating and Ventilation Systems outlined

Paragraph 1.1.7, 1.1.8 and 1.1.9 – Technical and Economic Feasibility outlined

Energy Performance of Buildings Regulations 2021

Thank you for your attention.



Publication

Energy Performance of Buildings Regulations 2021 - Technical Guidance

From [Department of Housing, Local Government and Heritage](#)

Published on 3 August 2021

Last updated on 3 August 2021



Energy Performance of Buildings Regulations 2021 -
Technical Guidance

[Download](#)

Part of

Policies

Housing

Technical Guidance Documents L 2021 (Dwellings and Buildings other than Dwellings) available at the links below:

- <https://www.gov.ie/en/publication/d82ea-technical-guidance-document-l-conservation-of-fuel-and-energy-dwellings/>
- <https://www.gov.ie/en/publication/80125-technical-guidance-document-l-conservation-of-fuel-and-energy-buildings-other-than-dwellings/>

Energy Performance of Buildings Regulations 2021 Technical Guidance available at the link below:

- <https://www.gov.ie/en/publication/83fdc-energy-performance-of-buildings-regulations-2021-technical-guidance/>