

EPBD Recast Update

Georgina Molloy,
Programme Manager, Concerted
Action EPBD



Agenda

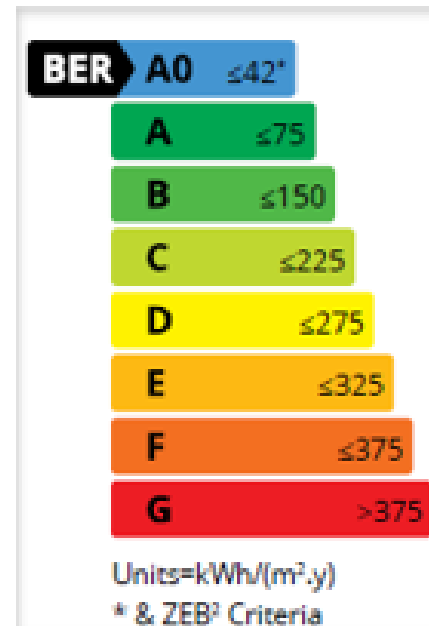
Overview

Simplified BER

Building Renovation Passport

Life-cycle global warming potential

Questions & Answers



EPBD Overview

- Formally adopted 29 May 2024
 - Transposition deadline 29 May 2026
 - Further projects beyond May 2026
-
- No financial incentives for fossil fuel boilers 
 - BACS legislation introduced 
 - Simplified BER & Zero Emissions Buildings 

All buildings in
Europe to be zero
emissions
buildings (ZEBs)
by 2050



Building automation and control systems (BACS)

From 31st December 2024 building owners and tenants will be required to install building automation and control systems in buildings where the effective rated output of heating, air-conditioning and ventilation system(s) in a building is above a threshold of 290 kW.

Building automation and control systems (BACS)

[S.I. No. 642/2024 - European Union \(Energy Performance of Buildings\) Regulations 2024](#)

[EPBD-Technical-Guidance.pdf](#)

[BACS-Compliance-Assessment.pdf](#)

Links

Factsheet on understanding
BACS requirements

**S.I. 393 COMPLIANCE
ASSESSMENT**

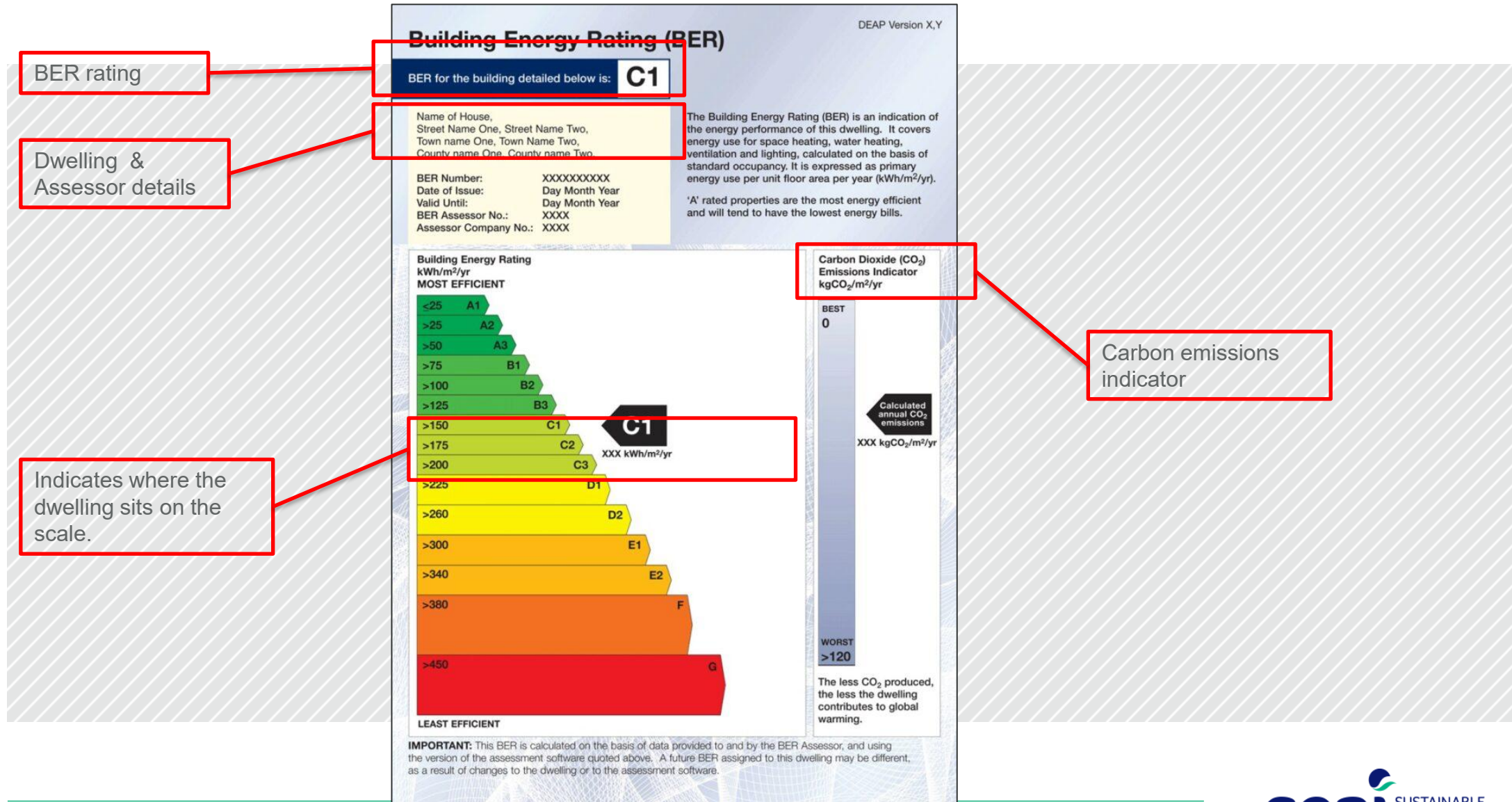


<https://www.seai.ie/plan-your-energy-journey/for-your-business/standards/bacs-regulations>

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Previous BER Certificate

Remains valid for the 10-year validity period



New BER Certificate (Since May 2026)





Rialtas na hÉireann
Government of Ireland

Building Energy Rating (BER) Certificate

The rating for the building detailed below is: **A0**

Address	XX XXXXXXX XXXXXXX XXXXXXX XXXXXXXX XXXXXXX XXXXXXX XXXXXXXX XXXXXXX
Validity ¹	Day Month Year – Day Month Year
BER number	00000000
Building type	XXXXXXXX
Build year	0000
Assessor	XXXXXXX
Assessor No.	000000
Assessor Company	XXXXXXXX XXXXXXXX
Assessor Company No.	000000

Scan the QR code³ for additional information about your BER and planning your home energy upgrade or visit www.seai.ie/ber



Building Energy Data

 Annual Primary Energy⁴ Use per floor area: 00 kWh/(m².y) Total use: 0.000 kWh/y	 Annual Final Energy⁵ Use per floor area: 00 kWh/(m².y) Total use: 0.000 kWh/y
 Renewable Energy⁶ 00% of total used Produced on site: 0.000 kWh	 Building Energy Demand⁷ 00 kWh/(m².y)
 Global Warming Potential⁸ XXXXX	 Operational Greenhouse Gas⁹ 00 kgCO₂eq/(m².y)

BER **A0** ≤42*

A ≤75

B ≤150

C ≤225

D ≤275

E ≤325

F ≤375

G >375

Units=kWh/(m².y)
* & ZEB² Criteria

Building Energy Rating (BER) Certificate

BER number 00000000

Additional Building Energy Data

Main Energy Carrier
XXXXXXX

Renewable Energy Source
XXXXXXX

Does the building have the capacity to react to external signals and adjust the energy consumption?¹⁰

Does the heat distribution system have the capacity to work at low or more efficient temperature levels?

Yes/No

Yes/No

Recommended Provider for Renovation Advice



Sustainable Energy Authority of Ireland
3 Park Place, Hatch Street,
Dublin 2, D02 FX65
<https://www.seai.ie>
customer.service@seai.ie

Sustainable Energy Authority of Ireland
3 Park Place, Hatch Street,
Dublin 2, D02 FX65
<https://www.seai.ie>
customer.service@seai.ie

Assessor Signature

Assessor: XXXXXXX

Building Energy Rating (BER) Certificate

BER number 00000000

Explanatory Notes

The Building Energy Rating (BER) is an indication of the energy performance of this building. The calculation includes the energy use for space heating, water heating, space cooling, ventilation, lighting, and the energy produced by renewables. It is expressed as primary energy use per unit floor area per year, kWh/(m².y) on the basis of standard occupancy. The BER is calculated on the basis of data provided to and by the BER Assessor, and using the version of the assessment software when the BER was published. A future BER assigned to this building may be different, as a result of changes to the building or to the assessment software. An 'A0' rated building is a Zero Emission Building (ZEB²) and the most energy efficient.

1. Please be aware that should a subsequent BER assessment be carried out during this validity date, that this BER cert shall no longer be valid and the subsequent certificate will replace this BER.
2. A Zero Emission Building (A0) is a building with a very low amount of energy, producing zero on-site carbon emissions from fossil fuels and producing zero or a very low amount of operational greenhouse gas emissions.
3. Scan the QR code or visit the Internet website of Sustainable Energy Authority of Ireland at www.seai.ie/ber for additional information about your BER and planning your home energy upgrade.
4. Primary energy use is the total amount of energy used in a year. It includes the final energy used directly by the end-user, but also the energy inputs to transformation processes such as electricity generation and oil refining and other losses such as those arising from electricity transmission and distribution.
5. Final energy use is the energy used directly in the building in a year, inclusive of the efficiency of the building's systems. Final energy does not include energy lost during the generation, transmission, and distribution of the energy.
6. Renewable energy produced in the building and the curtilage of that building.
7. Energy Demand is the calculated energy that needs to be delivered to maintain the requirements for indoor environmental quality regardless of its source or the efficiency of the systems therein.
8. The Global Warming Potential (GWP) over a building's whole life cycle indicates the building's overall contribution to emissions that lead to climate change. It brings together greenhouse gas emissions embodied in construction products, direct and indirect emissions from the use stage, and emissions related to disposal of products at the end of the life of the building.
9. Greenhouse gas emissions are the emissions associated with the energy consumption of the technical building systems expressed as the climate impact of different greenhouse gases in terms of the amount of CO₂ that would cause the same amount of warming.
10. A capacity to react to external signals and adjust the building's energy consumption, generation, and storage automatically, in accordance with the assessment procedure, helping reduce costs, and ease pressure on the electricity grid at periods of high demand.

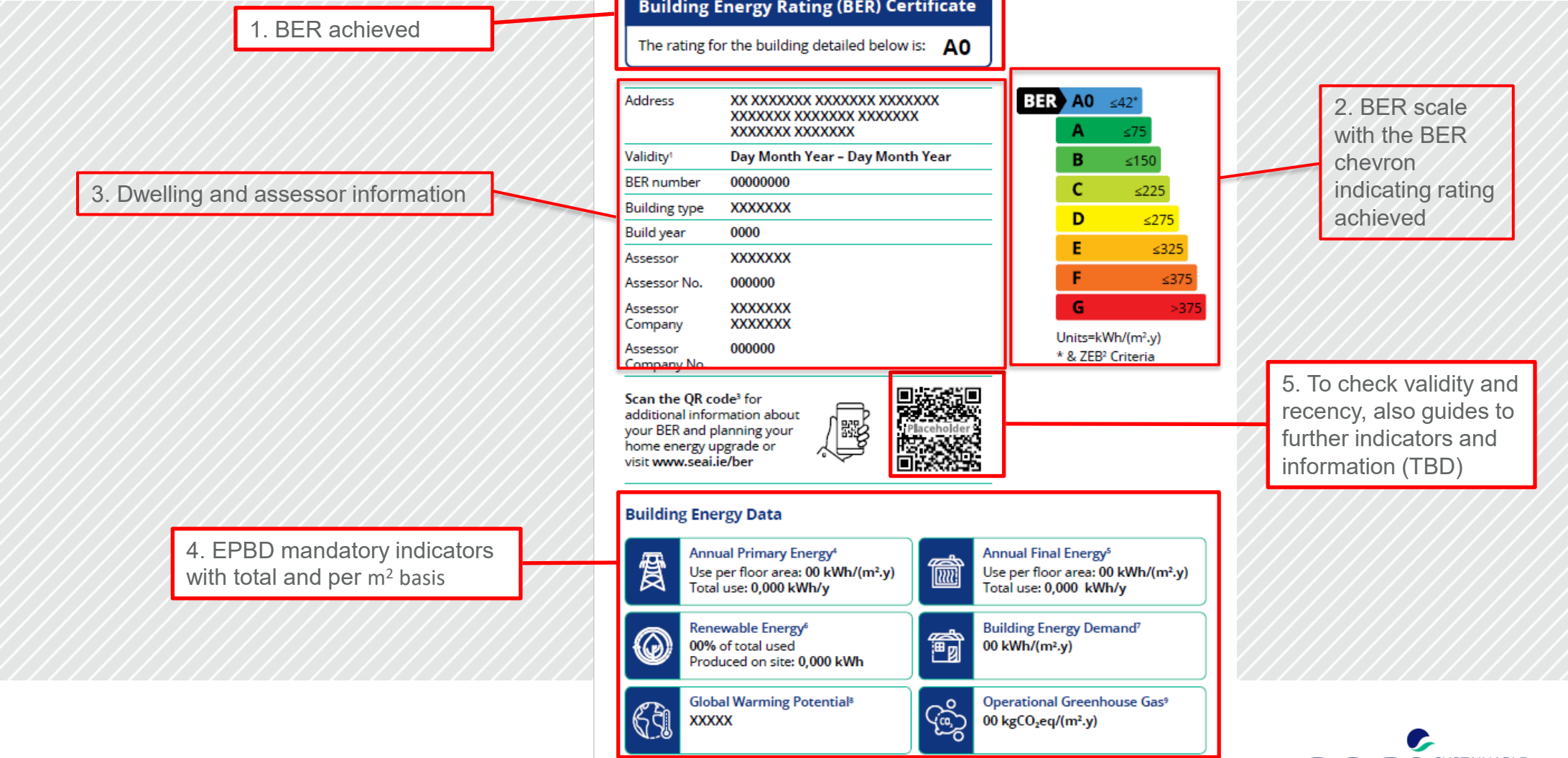
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www.seai.ie



SUSTAINABLE
ENERGY AUTHORITY
OF IRELAND

BER Certificate – Pg 1



BER Certificate - Pg 2 and 3

Building Energy Rating (BER) Certificate

BER number 00000000

Explanatory Notes

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Building Energy Rating (BER) Certificate

BER number 00000000

Additional Building Energy Data

Main Energy Carrier
XXXXXXX

Renewable Energy Source
XXXXXXX

Does the building have the capacity to react to external signals and adjust the energy consumption?¹⁰
Yes/No

Does the heat distribution system have the capacity to work at low or more efficient temperature levels?
Yes/No

Recommended Provider for Renovation Advice



Sustainable Energy Authority of Ireland
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customer.service@seai.ie

Assessor Signature

Assessor: XXXXXXXX

6. Additional building information

7. Source of further retrofit info (EPBD requirement)

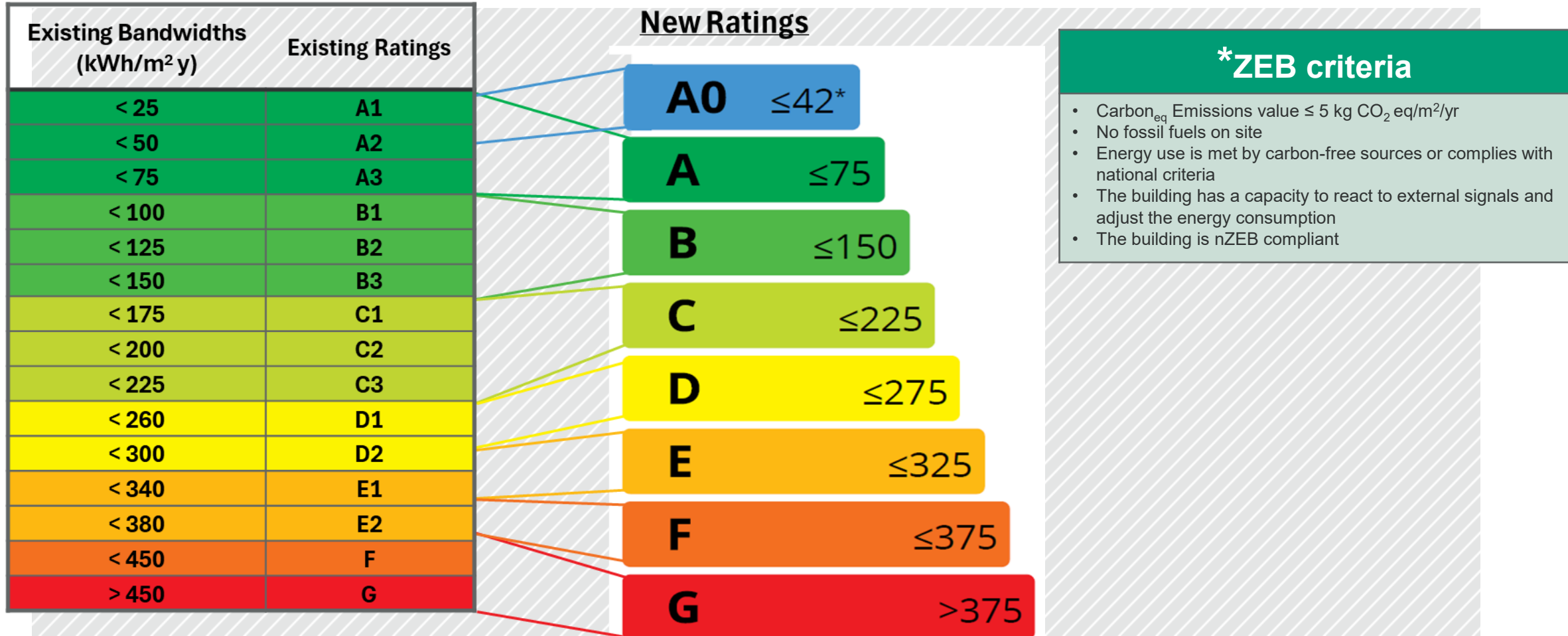
8. Assessor signature and number improve validity of cert

A0 Definition

Here in Ireland, A0 is defined as:

- Primary energy value $\leq 42 \text{ kWh/m}^2/\text{yr}$
- Carbon eq emissions value $\leq 5 \text{ kg CO}_2\text{eq/m}^2/\text{yr}$
- No fossil fuels on site
- Energy use is met by carbon-free sources or complies with national criteria
- The building has a capacity to react to external signals and adjust the energy consumption
- The building is nZEB compliant

Rescaling of BER scale



Building Renovation Passport



Roadmap

STARTING POINT		
BER G  Energy Value 422.13 kWh/(m².y)  CO ₂ Emissions 68.61 kgCO₂eq/(m².y)		
RENOVATION MEASURE	POTENTIAL PROGRESS	
	BEFORE	AFTER
1 ROOF Roof insulation pitched on slope. U value = 0.20	BER G > BER E 422.13 kWh/(m².y) → 313.11 kWh/(m².y) Estimated Cost: €100 Estimated Savings: €10	
2 WALL External wall insulation system installed using 150 mm EPS to achieve U-value 0.21 W/m²K.	BER E > BER C 313.11 kWh/(m².y) → 197.52 kWh/(m².y) Estimated Cost: €100 Estimated Savings: €10	
3 WINDOW Windows upgraded to high-performance units (0.9/1.4 W/m²K).	BER C > BER C 197.52 kWh/(m².y) → 181.62 kWh/(m².y) Estimated Cost: €100 Estimated Savings: €10	
4 SPACE AND WATER HEATING Air-to-water heat pump installed at 350% efficiency with low-temp radiators.	BER C > BER A 181.62 kWh/(m².y) → 53.58 kWh/(m².y) Estimated Cost: €100 Estimated Savings: €10	

BRP Roadmap

RENOVATION MEASURE	POTENTIAL PROGRESS	
	BEFORE	AFTER
5 RENEWABLES SOLAR PV 4 kWp PV system installed on south-facing roof.	BER A > BER A0 53.58 kWh/(m².y) → 24.92 kWh/(m².y) Estimated Cost: €100 Estimated Savings: €10	
END POINT		
BER A0  Energy Value 24.92 kWh/(m².y)  CO ₂ Emissions 2.79 kgCO₂eq/(m².y)		
 Renewable Energy 0.70% Produced on site 17752.48 kWh		

Benefits of a home energy upgrade

You deserve a more comfortable, energy efficient home. Transform the comfort levels of your home, save on your energy bills and reduce your carbon footprint.

Comfort 

Enjoy a warmer, cosier and healthier home by upgrading your insulation and adding renewables.

Savings 

Save on energy bills by using less energy and adding renewable energy to your home.

Environment 

Reduce your emissions and your carbon footprint with an energy efficient home.

BRP Roadmap

Building Renovation Passport (BRP)

BRP number 00000000

Roadmap

STARTING POINT		
	BER G	Energy Value kWh/(m².y) CO ₂ Emissions 86.06 kgCO ₂ .eq/(m².y)
RENOVATION MEASURE	POTENTIAL PROGRESS	
	BEFORE	AFTER
1 FLOORS New insulated floor slab installed to achieve U-value 0.21 W/m²K.	BER G kWh/(m².y)	BER G kWh/(m².y) Estimated Cost €xx,xxx Estimated Savings €xx,xxx
2 ROOFS Roof insulation pitched on slope using continuous layers of high-performing insulation to achieve U-value 0.20 W/m²K.	BER G kWh/(m².y)	BER F kWh/(m².y) Estimated Cost €xx,xxx Estimated Savings €xx,xxx
3 WALLS External wall insulation system installed using 150 mm of Expanded Polystyrene (EPS) to achieve U-value 0.21 W/m²K.	BER F kWh/(m².y)	BER D kWh/(m².y) Estimated Cost €xx,xxx Estimated Savings €xx,xxx
4 DOORS AND WINDOWS Windows and doors upgraded to high-performance units (0.9/1.4 W/m²K).	BER D kWh/(m².y)	BER C kWh/(m².y) Estimated Cost €xx,xxx Estimated Savings €xx,xxx
5 VENTILATION A whole-house Mechanical Ventilation with Heat Recovery (MVHR) system installed with airtightness of 0.15 air changes per hour.	BER C kWh/(m².y)	BER C kWh/(m².y) Estimated Cost €xx,xxx Estimated Savings €xx,xxx

continued on page 3

Building Renovation Passport (BRP)

BRP number 00000000

RENOVATION MEASURE		POTENTIAL PROGRESS	
		BEFORE	AFTER
6 SPACE AND WATER HEATING SYSTEM Air to water heat pump installed at 350% efficiency with low temperature radiators.		BER C kWh/(m².y) Estimated Cost €xx,xxx Estimated Savings €xx,xxx	BER B kWh/(m².y)
7 SOLAR WATER HEATING Evacuated-tube solar thermal system with 300 liters cylinder installed.		BER B kWh/(m².y) Estimated Cost €xx,xxx Estimated Savings €xx,xxx	BER B kWh/(m².y)
8 SOLAR PV 4kWp Solar photovoltaic panels installed on the south facing roof.		BER B kWh/(m².y) Estimated Cost €xx,xxx Estimated Savings €xx,xxx	BER A0 kWh/(m².y)
END POINT			
	BER A0	Energy Value kWh/(m².y) CO ₂ Emissions 7.42 kgCO ₂ .eq/(m².y)	
		Renewable Energy Total used 71.48% Produced on site 6,401.21 kWh	

Benefits of a home energy upgrade

You deserve a more comfortable, energy efficient home. Transform the comfort levels of your home, save on your energy bills and reduce your carbon footprint.

Comfort

Enjoy a warmer, cosier and healthier home by upgrading your insulation and adding renewables.

Savings

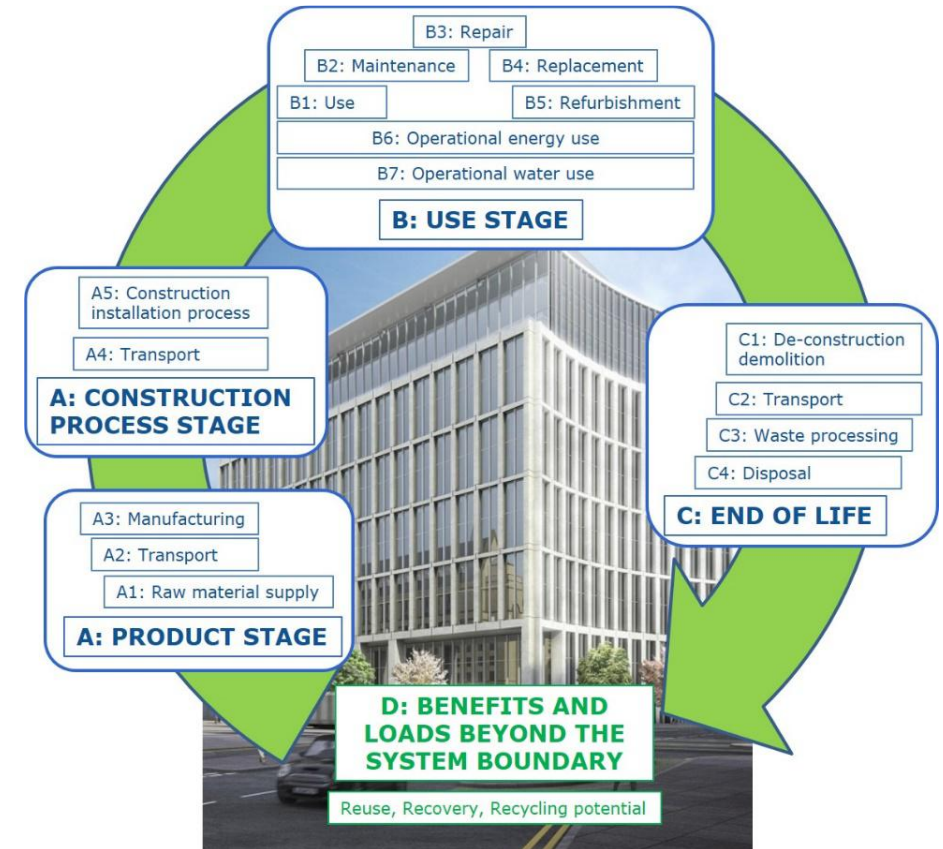
Save on energy bills by using less energy and adding renewable energy to your home.

Environment

Reduce your emissions and your carbon footprint with an energy efficient home.

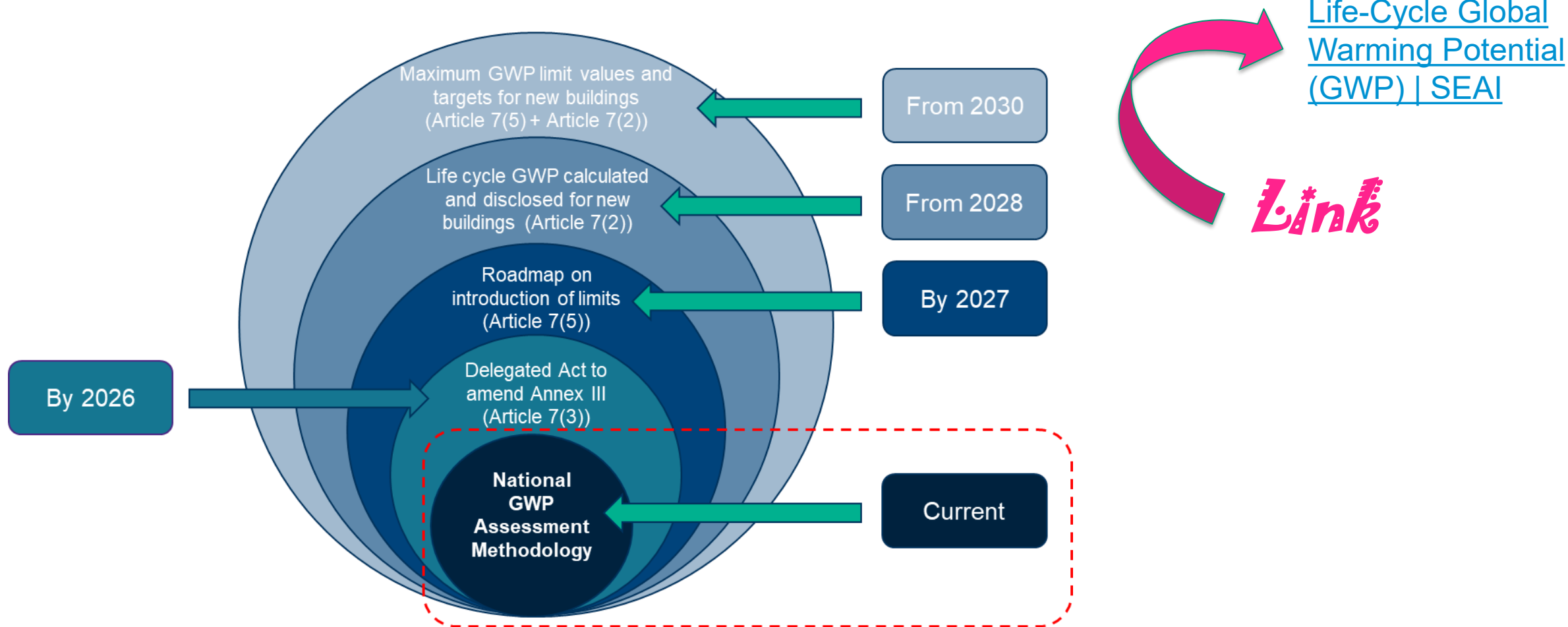
Life-Cycle Global Warming Potential (GWP)

- Over building's whole 50-year life-cycle
- **Embodied** emissions arising for the building materials
- Emission arising from the **construction process**
- Emissions arising from the **use phase** of the building including **operational** energy emissions.
- Emission arising from the **end-of-life phase**.



Life-Cycle Global Warming Potential (GWP)

Timelines set out under the recast EPBD



Thank You

