



Rialtas na hÉireann  
Government of Ireland

# Ireland - Incentive Schemes and Success Stories for New Buildings

Webinar: 4<sup>th</sup> ZEB Insight - Incentive Schemes for Energy Efficient Building in EU and Korea

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# Ireland



4.8 Million  
people

EU Climate  
Commitments

GDP \$382.5 Bn.

Climate Change  
Act 2015

Joined UN 1955

Ministry of  
Climate Action  
2016

Joined European  
Union 1973

National  
Development  
Plan €116 Bn.

32.5% of  
electricity  
generated from  
wind-2<sup>nd</sup> in world

Sustainable  
Energy Authority  
Ireland 2002

# Ireland- Housing



Buildings - 40% of energy use

2 million dwellings

90% Detached/Semi-detached houses.

Oceanic Temperate Climate

Masonry Construction



# Non-Financial Incentives: Regulations & Policy



Information - Energy Performance Certificates

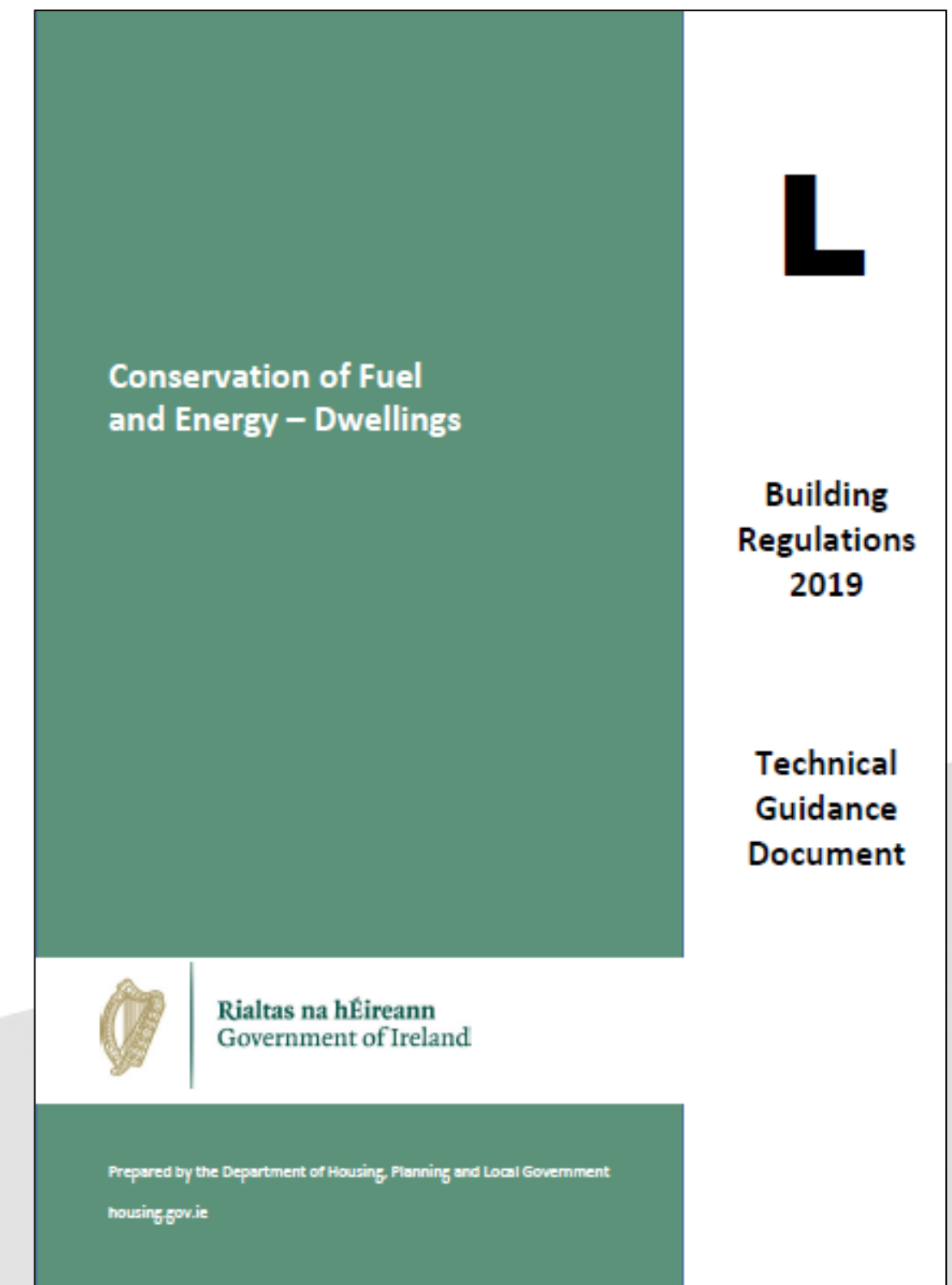
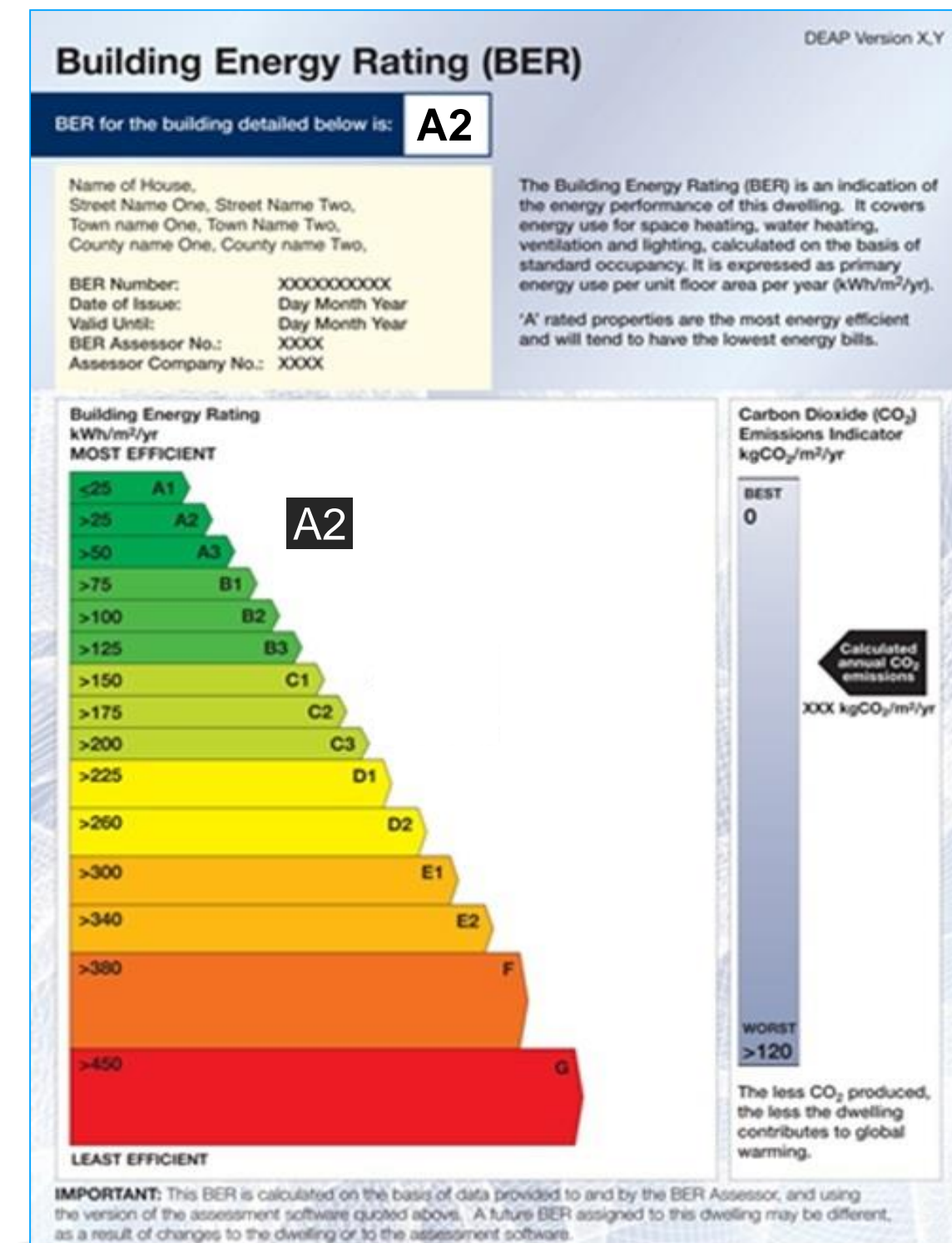
Roadmap to Nearly Zero Energy Buildings (NZEB)

Implementation through Building Codes & EU Energy Performance of Buildings Directive

Renewable Requirements

Performance Based Regulation

Use of ISO & EN standards

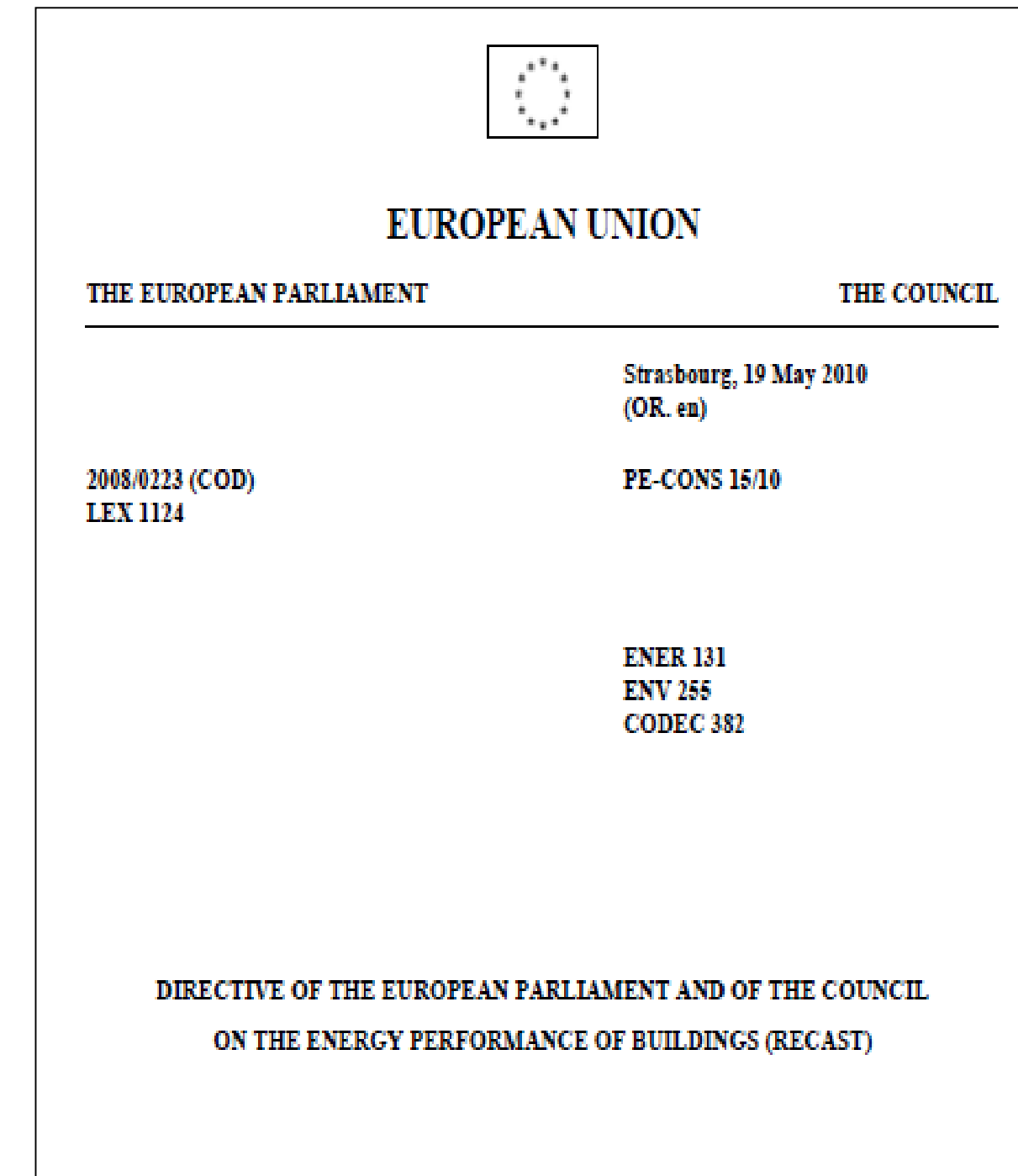


# Nearly Zero Energy Buildings by 2020

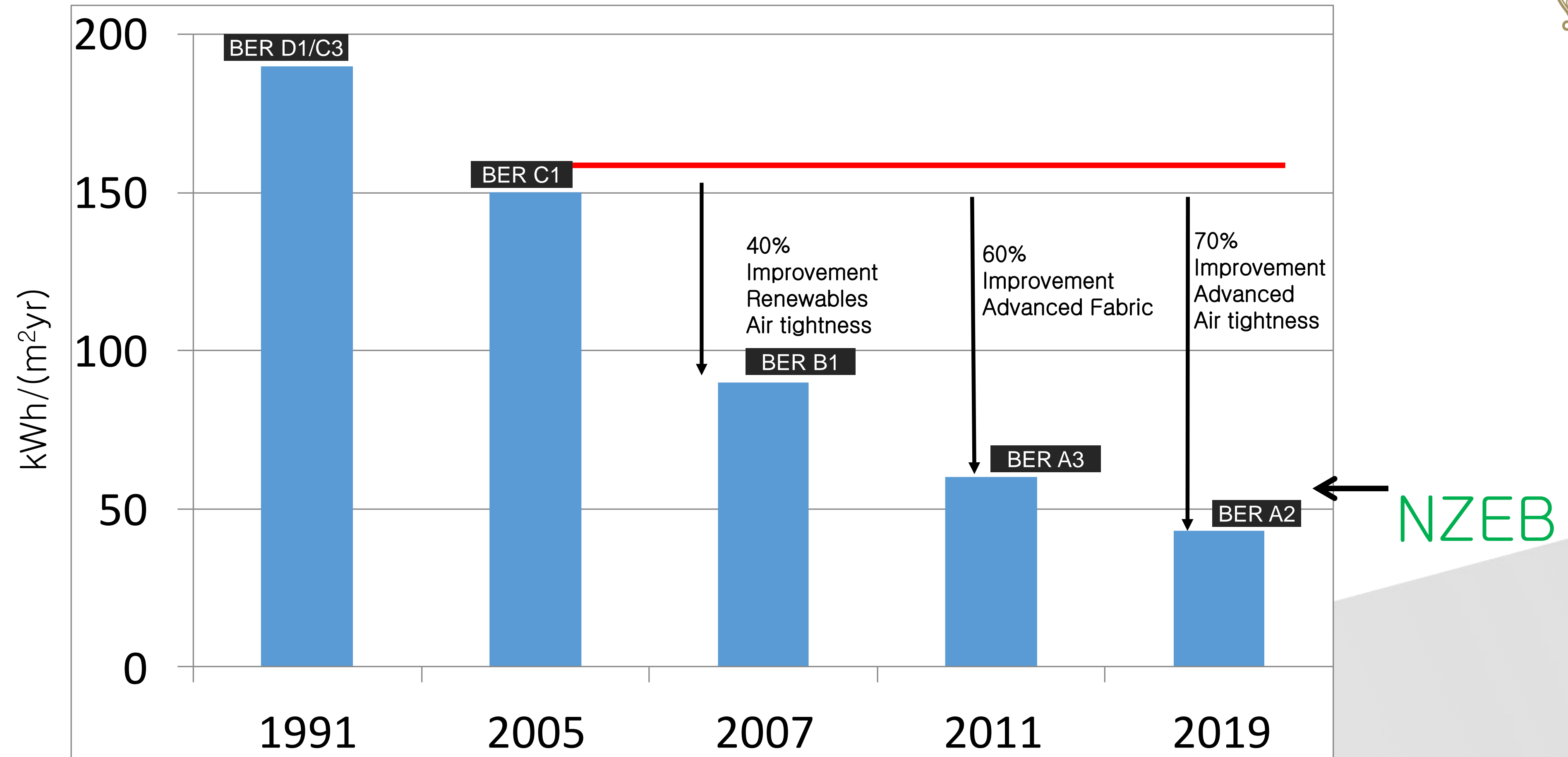


## EU Energy Performance of Buildings Directive (EPBD)

- ‘Nearly Zero-Energy Building’ means a building that has a **very high energy performance**, as determined in accordance with Annex I. **The nearly zero or very low amount of energy** required should be covered to a **very significant extent by energy from renewable sources**, including energy from renewable sources produced on-site or nearby;



# Roadmap for Nearly Zero Energy Buildings



# Ireland- Nearly Zero Energy Dwellings



NZEB Dwellings

“A2” Rated or 42  
 $\text{kWh}/(\text{m}^2 \text{ yr})_{\text{p.e.}}$

Advance fabric to  
passive levels ( $0.11$  to  
 $0.15 \text{ W}/\text{m}^2\text{K}$ ) and  
triple glazed windows

Air Source Heat  
pumps or  
photovoltaics

Airtightness  $<3\text{m}^3/(\text{hr}$   
 $\text{m}^2)$  @  $50\text{pa}$  &  
Mechanical  
Ventilation

Small increase in  
overall cost with  
each incremental  
change



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# Success Indicators for Non Financial Incentives: Regulations & Policy Measures

# Ireland- Success Indicators



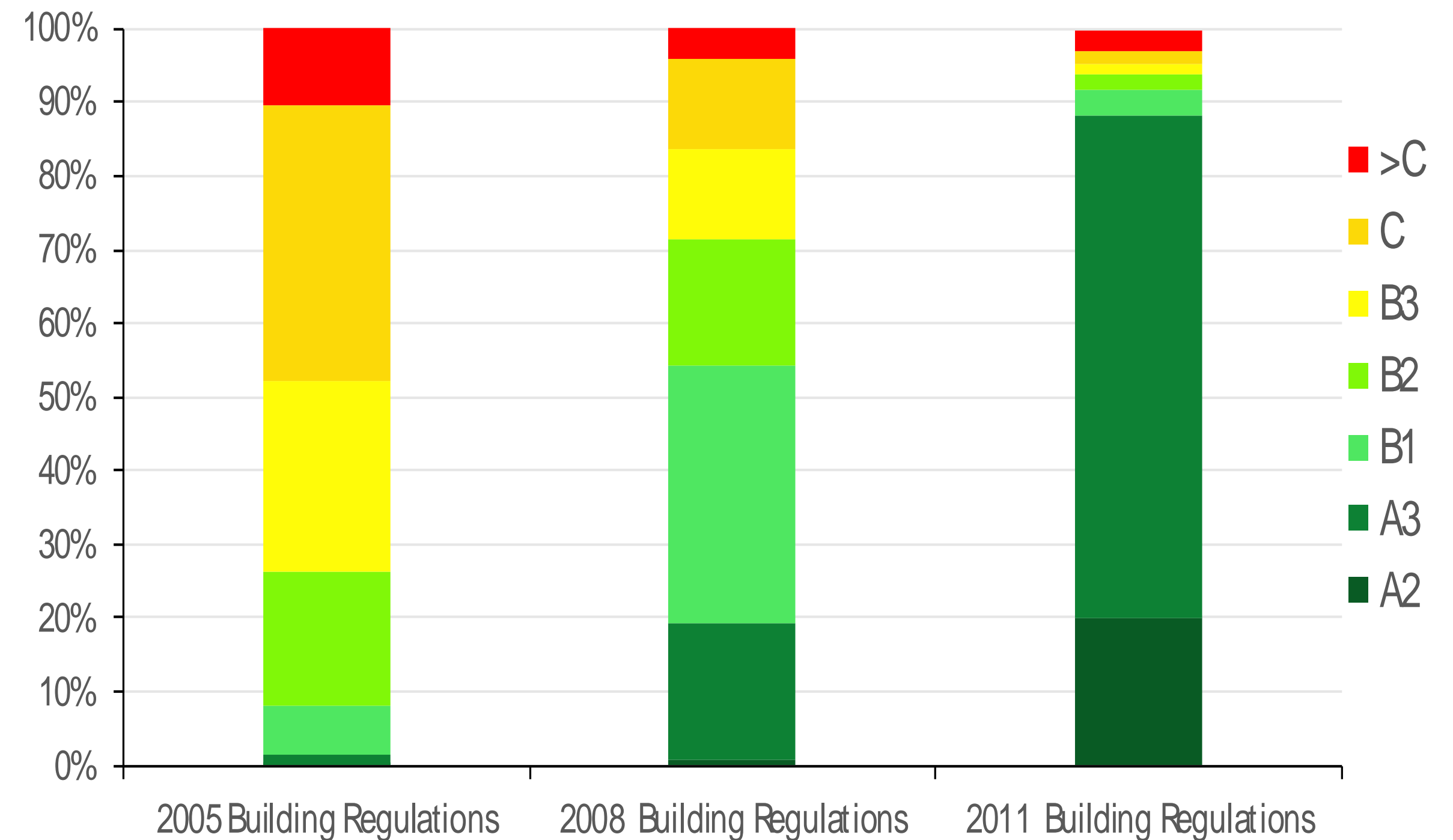
55,068 new dwellings built to 2011 Building Codes - “A3” standard

Oil boiler installation in new dwellings has dropped from 37% to 4%

45% of new dwellings use heat pumps as main heating system since 2011

Improved Indoor Air Quality and health benefits

The value of an “A” Rated property increases by 9%<sup>1,2</sup>

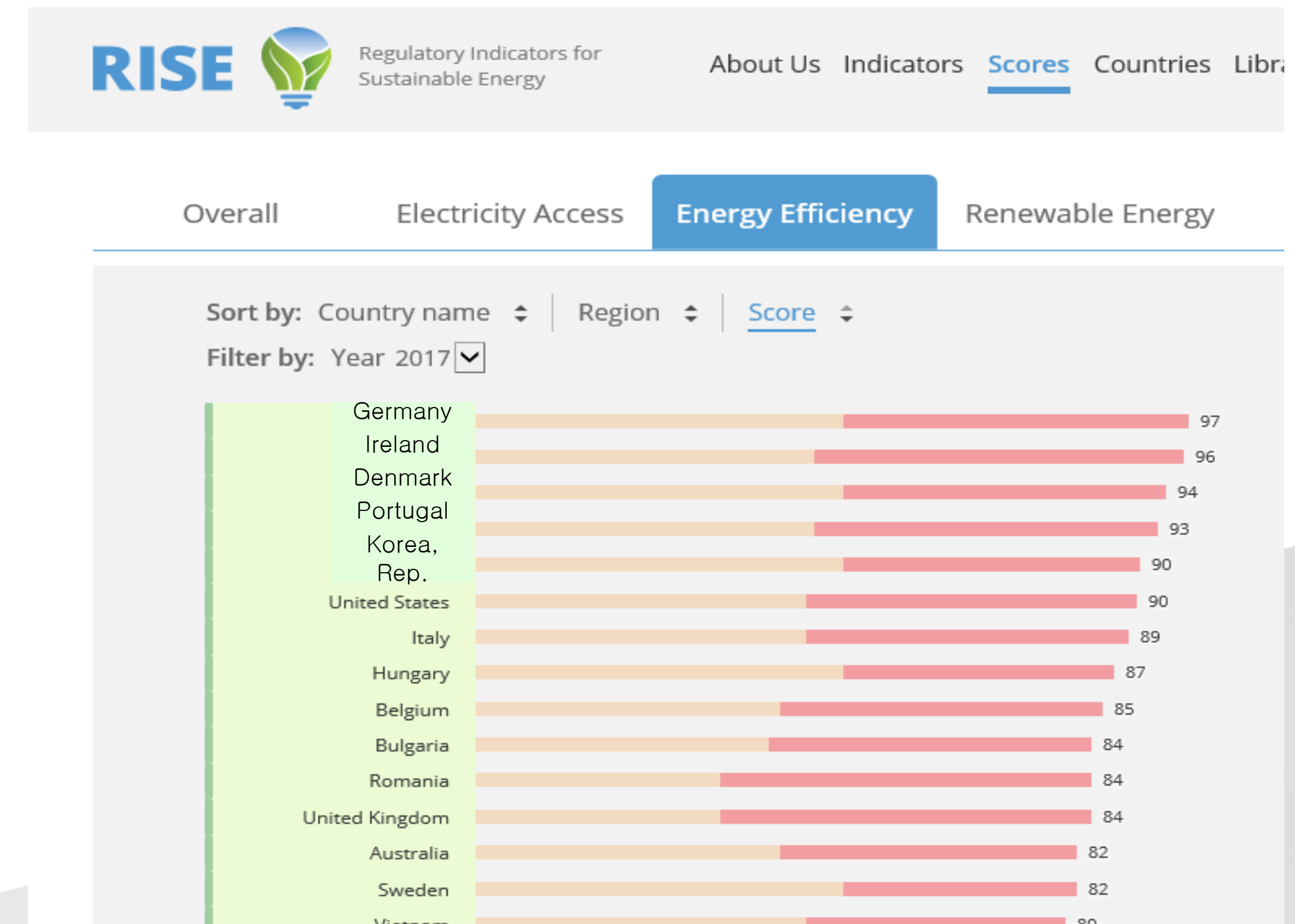
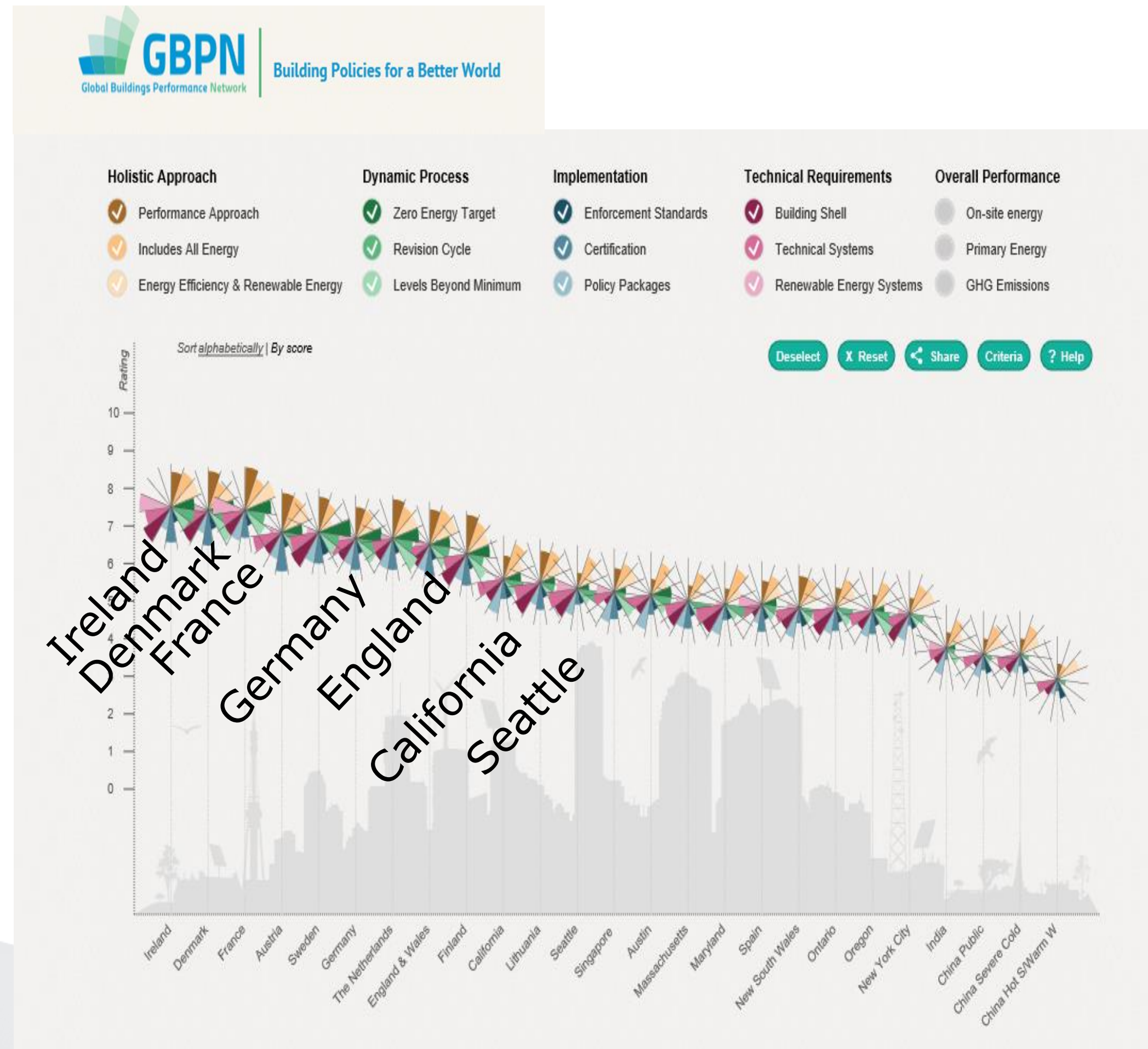


Effect of building codes on energy performance certificates for new dwellings

<sup>1</sup> <https://www.esri.ie/system/files/media/file-uploads/2015-07/JACB201377.pdf>

<sup>2</sup> <https://www.esri.ie/publications/the-price-effect-of-building-energy-ratings-in-the-dublin-residential-market>

# Buildings – International Comparison



# Financial Incentives: Better Energy Homes Grants



Sustainable Energy Authority of Ireland grants<sup>1</sup> are available to private householders for existing dwellings

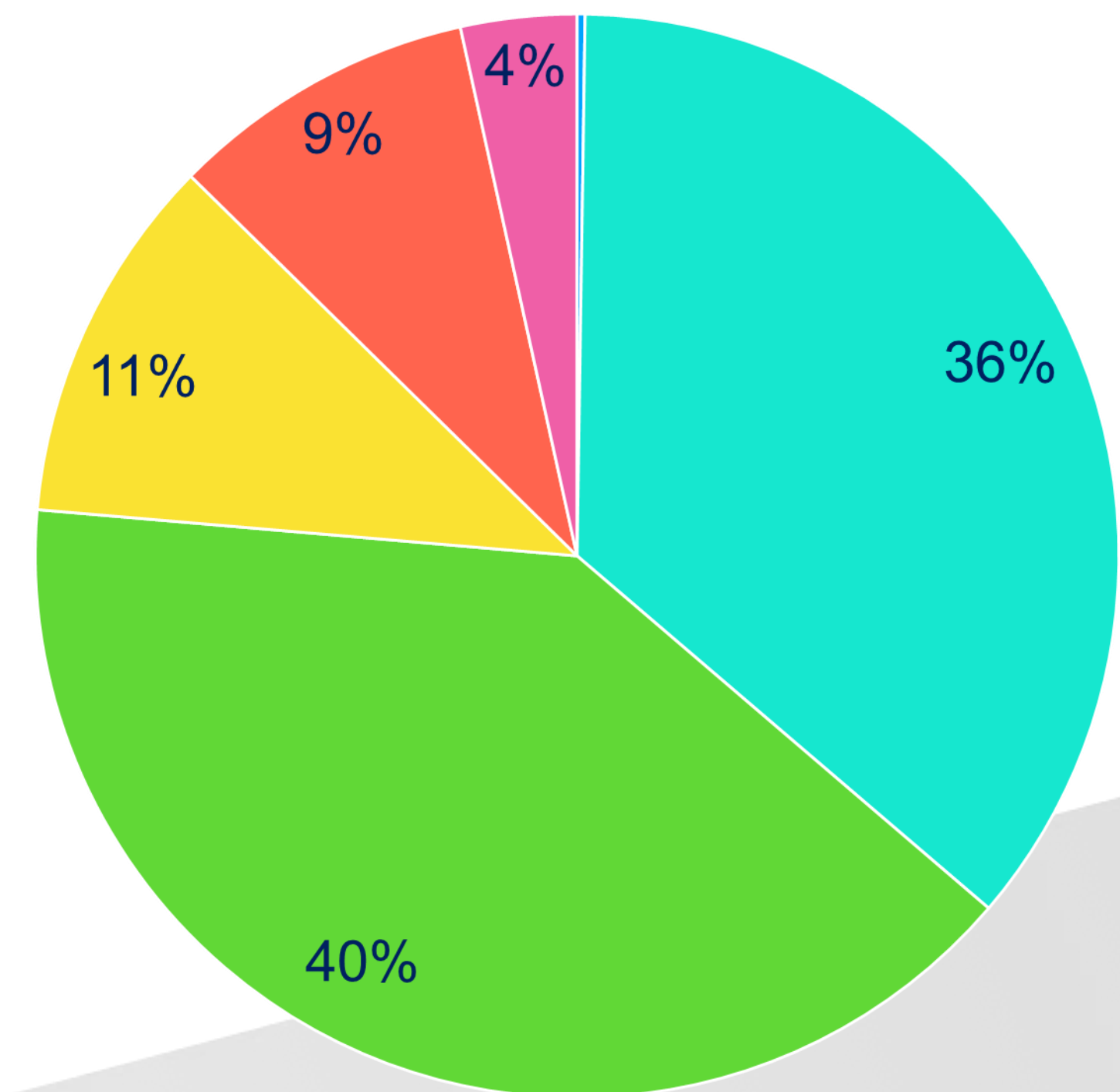
Grants are for an Energy Performance of at least “B2” or 125 kWh/m<sup>2</sup>/yr either in one stage or step by step approach

Grants for:

- Fabric first (walls & attic insulation),
- Heating systems
- Renewable Energy-Heat pumps, Solar PV & Thermal

This programme has supported 260,000 homes since 2009

Better Energy Homes Measures



■ Heat Pumps      ■ Roof Insulation      ■ Wall Insulation  
■ Boiler replacement      ■ Heating Controls      ■ Solar heating

<sup>1</sup><https://www.seai.ie/grants/home-energy-grants/>

# Ireland – Implementation in Policy



Signals to market – **Roadmap & Renewables**

Performance based **regulation** for Energy and Carbon

“Fabric first” approach

Energy Performance Certificate Rating

Whole dwelling approach - Fire, Ventilation, Durability

Building Capacity/Developing the supply chain –  
**Stakeholder Engagement**, Public Sector , Standards, Skills

Compliance and Verification



Social Housing “A2”



Dublin City Council Social Apartments “A2”

# Further Information – Building



## Ireland Building Codes

<https://www.housing.gov.ie/housing/building-standards/tgd-part-d-materials-and-workmanship/technical-guidance-documents>

<https://www.housing.gov.ie/housing/building-standards/tgd-part-l-conservation-fuel-and-energy/technical-guidance-document-l-2>

## Sustainable Energy Authority of Ireland

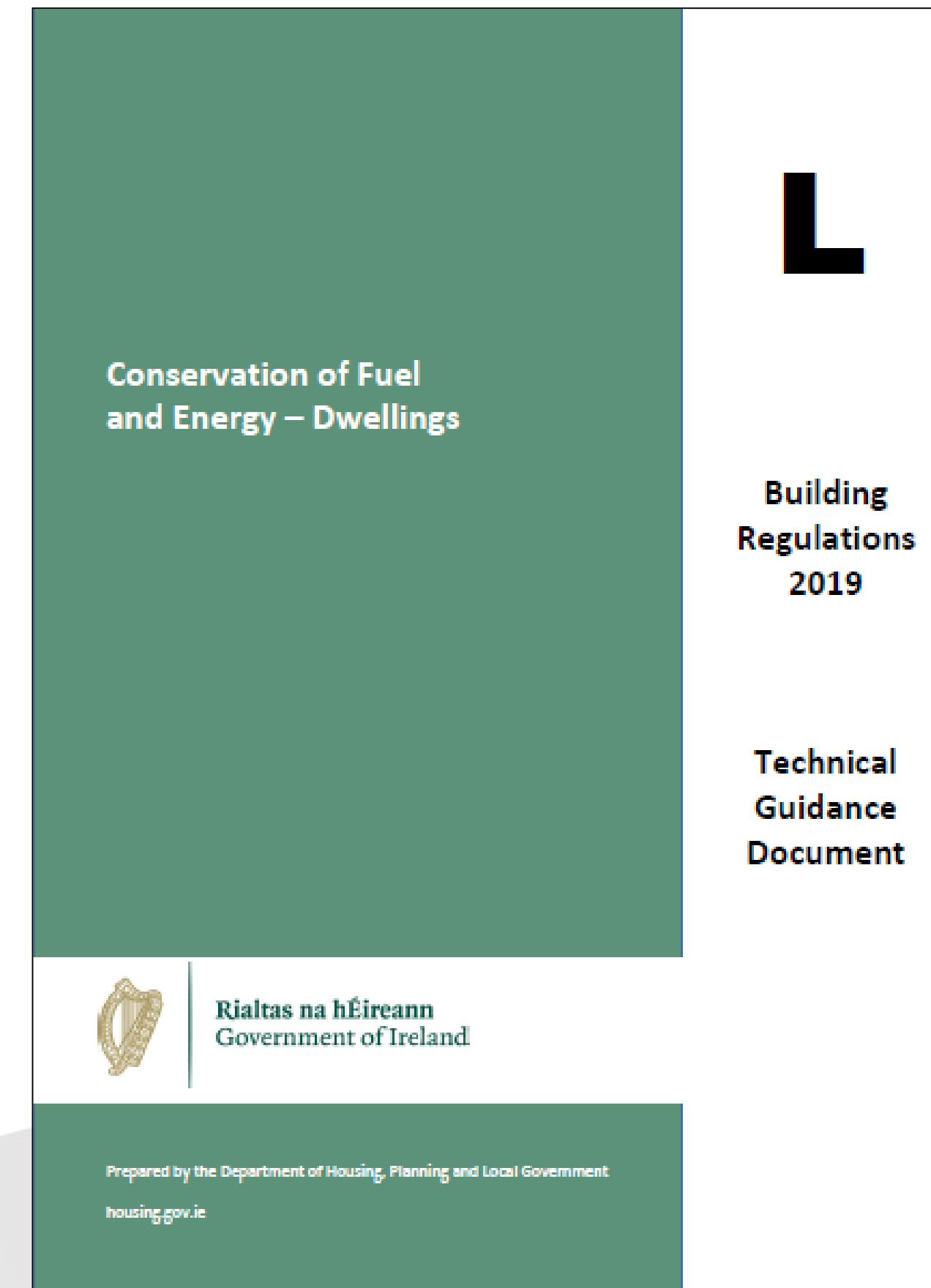
<https://www.seai.ie/>

## National Calculation Methodologies for Energy Performance Certificates

<https://www.seai.ie/home-energy/building-energy-rating-ber/support-for-ber-assessors/domestic-ber-resources/deap4-software/>

## Ireland's National Standard for Retrofitting

[https://shop.standards.ie/en-ie/Standards/S-R-54-2014-A1-2019-877610\\_SAIG\\_NSAI\\_NSAI\\_2749895/](https://shop.standards.ie/en-ie/Standards/S-R-54-2014-A1-2019-877610_SAIG_NSAI_NSAI_2749895/)



# Further Information –General



Ministry of Housing, Planning & Local Government - Nearly Zero Energy Building Information

<https://www.housing.gov.ie/housing/building-standards/energy-performance-buildings/new-energy-efficiency-standards-new>

Ministry of Housing Planning and Local Government NZEB Social Housing Video

<https://www.youtube.com/watch?v=bGEfVReh0t8&feature=youtu.be>

Sustainable Energy Authority Ireland - Quality Assurance Procedure for Energy Performance Certificates or Building Energy Ratings

<https://www.seai.ie/publications/Quality-Assurance-System-and-Disciplinary-Procedure-New.pdf>

[www.housing.gov.ie](http://www.housing.gov.ie)



Go raibh mile maith agaibh  
!

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