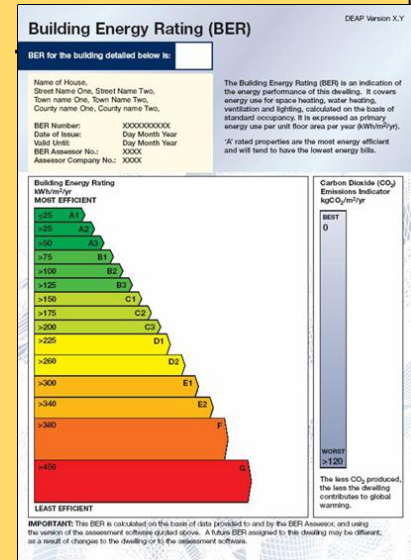


# **Directive 2002/91/EC on the Energy Performance of Buildings**

# Scope of the EPBD

- ❖ Adopted in Dec 2002 by the EU – the main legislative instrument affecting energy use and efficiency in the buildings sector. Transposed into Irish law in 2006.
- ❖ The requirements ensure that **all buildings** are potentially subject to **at least one requirement** in the EPBD.
- ❖ Its biggest potential impact is its requirement
  - a) new and existing buildings to have a Building Energy Rating ( BER) Certificate when sold or rented
  - b) existing buildings over a 1,000 m<sup>2</sup> to upgrade their energy performance when being renovated



# Requirements for new buildings

- ❖ Are required to introduce Building Energy Rating Certificates
- ❖ Have to meet minimum energy performance requirements of the Building Regulations
- ❖ For buildings having a floor area  $>1000 \text{ m}^2$ , low carbon systems of heating and energy generation must be considered at the design stage



# Requirements for existing buildings

❖ Buildings having a floor area  $>1000\text{m}^2$  when undergoing major renovation must improve their energy performance when technically, economically and functionally feasible.



❖ Required to introduce Building Energy Rating Certificates when the whole building, or apartments, or units, are sold or rented.

# Recast EPBD - towards 'near-zero-energy' buildings

- ❖ All buildings built after 31 December 2020 must be 'nearly zero' energy buildings and be powered to a very large extent by renewable energy
- ❖ Public authorities will have to ensure that all new buildings they own or rent after 31 December 2018 meet the near-zero energy standard
- ❖ Application of minimum performance requirements to all existing buildings ( "1000 m<sup>2</sup>" threshold deleted!) when undergoing major renovations
- ❖ Member States will be required to introduce penalties for non-compliance

# **Directive 2006/32/EC on Energy end-use Efficiency and Energy Services**

# Scope and purpose

Adopted in March 2006  transposition by May 2008

- ❖ Seeks to increase energy efficiency all along the supply chain up to the retail stage when energy is sold to the end-user;
- ❖ Covers all forms of energy: electricity, natural gas, liquid fuels (except aviation fuels).
- ❖ Target groups:
  - providers of energy efficiency improvement measures
  - energy distributors
  - distribution system operators
  - retail sales companies
  - final customers
  - armed forces

# Main provisions

- ❖ Sets an indicative target to improve energy efficiency by 9% over 9 years from 2008 to 2016
- ❖ Each MS has to produce separate energy efficiency action plans by 2007; 2011 and 2014
- ❖ Sectors covered - households, agriculture, commercial and public sectors
- ❖ Implementation measures – white certificates, monetary funds, voluntary agreements, etc.
- ❖ Measures to be taken in number of areas - financing, metering, billing, promotion of energy services, and obligations for the public sector.



# **Directive 2009/28/EC on the Promotion of the use of Energy from Renewable Sources**

# New RES Directive – in relation to building codes

- ❖ by 31st December 2014, to set “where appropriate”, minimum levels of energy from RES (incl. district heating, cooling) in new buildings and existing buildings subject to major renovation.
- ❖ since 2007 Part L residential in Ireland has required RES of at least 10 kWh/m<sup>2</sup>/yr heat or 4 kWh/m<sup>2</sup>/yr electricity
- ❖ To ensure that after 1st January 2012 new public buildings play an exemplary role in use of RES (applicable also to existing public buildings undergoing major renovation).
- ❖ To “promote” use of renewable heating and cooling systems as well as systems that lead to a “significant” reduction in energy consumption through the building codes.
- ❖ To encourage biomass conversion technologies with at least 85% efficiency for commercial and residential applications and 70% for industrial applications.
- ❖ To promote use of heat pumps that meet the minimum requirements fulfilling the minimum requirements of eco-labelling

# New RES Directive - in relation to information & training

❖ to ensure that certification or qualification schemes are available by 31st December 2012 for the following categories of installers:

- ❖ Small scale biomass boilers and stoves
- ❖ Solar photovoltaic
- ❖ Solar thermal systems
- ❖ Shallow geo-thermal systems
- ❖ Heat pumps

❖ to make available information on:

- ❖ support measures to relevant “actors” e.g., builders, installers, architects, suppliers of RES equipment:
- ❖ net benefits, cost and energy efficiency of equipment using RES for heating, cooling and electricity generation
- ❖ Certification schemes, lists of qualified and certified installers