

Housing Agency Annual Conference Housing and Sustainability

SEAI Vision for Climate Action

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Programme Manager for NZEB & High Performance Retrofit
6th November, 2019

SEAI's Vision

Ireland's energy will be sustainable, secure, affordable and clean

1. Use Less

Energy Efficiency



2. Use Clean

Renewable energy



3. Innovate

New technological, economic & social approaches to sustainable energy transition



Our Strategy



€120 million invested by the Government in Ireland's clean energy transition

Citizens and Communities

21,350
home energy upgrades completed including 5,710 energy poor homes



2,000
electric vehicles and 976 home chargers supported



58,000
pupils participated in SEAI's education programme



237
sustainable energy communities in network representing 10,000 citizens



37
community projects funded

- Pilot projects in deep retrofit, solar electricity systems, consumer finance and health benefits of home upgrades
- Launched drivingelectric.ie awareness and education campaign

Public Sector and Businesses



69
public building retrofits including OPW and schools with €13.5 million support

33
major energy upgrade projects committed through EXEED

255 large industry network members implemented energy saving projects saving €14.5 million



€1 million support for 69 dairy farms and lighting upgrades for 197 SME's



- 55 best practice, training and energy management events
- 500 market surveillance investigations to ensure products meet energy efficiency standards
- First phase of Support Scheme for Renewable Heat launched

Policy, Research and Innovation

€4 million
invested in ocean energy prototypes and test sites



€10 million
committed to over 50 innovative research projects



17 reports
published, defining the policy options for Ireland to tackle climate change

- SEAI energy modelling informed the National Energy and Climate Plan
- Published a review of international behavioural science research in the field of energy
- SEAI to represent Ireland on Europe's Strategic Energy Technology Plan (SETPlan) Steering Group

ENERGY IN THE RESIDENTIAL SECTOR

2018 Report



Ireland's Homes in the 21st Century

The residential sector accounts for a quarter of the energy used in Ireland, and is also responsible for a quarter of the energy-related CO₂ emissions. From 2006-2014 there were significant reductions in the amount of emissions from homes, but since 2014 this trend has reversed and carbon dioxide emissions have started to increase. Irish homes emit almost 60% more CO₂ than the average EU home.

Ireland's growing population means the number of dwellings is increasing with

1.7 million households in 2016

2000 – 2016



Energy use in an average Irish home 2016

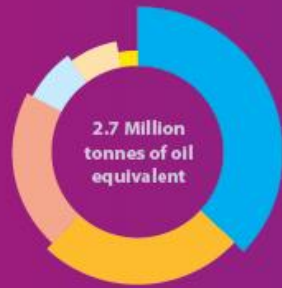
Space heating	61%
Water heating	19%
Lighting and appliances	17%
Cooking	3%



25% ↓
Reduction in CO₂ from 2006 to 2014

Through a combination of:

- Energy efficiency improvements
- High energy prices
- Reduced disposable incomes



Irish household final energy usage 2016

Oil	37%
Electricity	25%
Gas	21%
Coal	7%
Peat	7%
Renewables	3%

In 2015, the average Irish home used

7% more energy



than the average EU home

It also emitted

58% more CO₂

due to greater use of high-carbon fuels including oil, coal and peat



375,000 Homes

received government grants for energy efficiency measures between 2000 and 2016.



In 2016, Irish households consumed

2.7 Mtoe of energy

emitting



and costing households

€3.4 billion



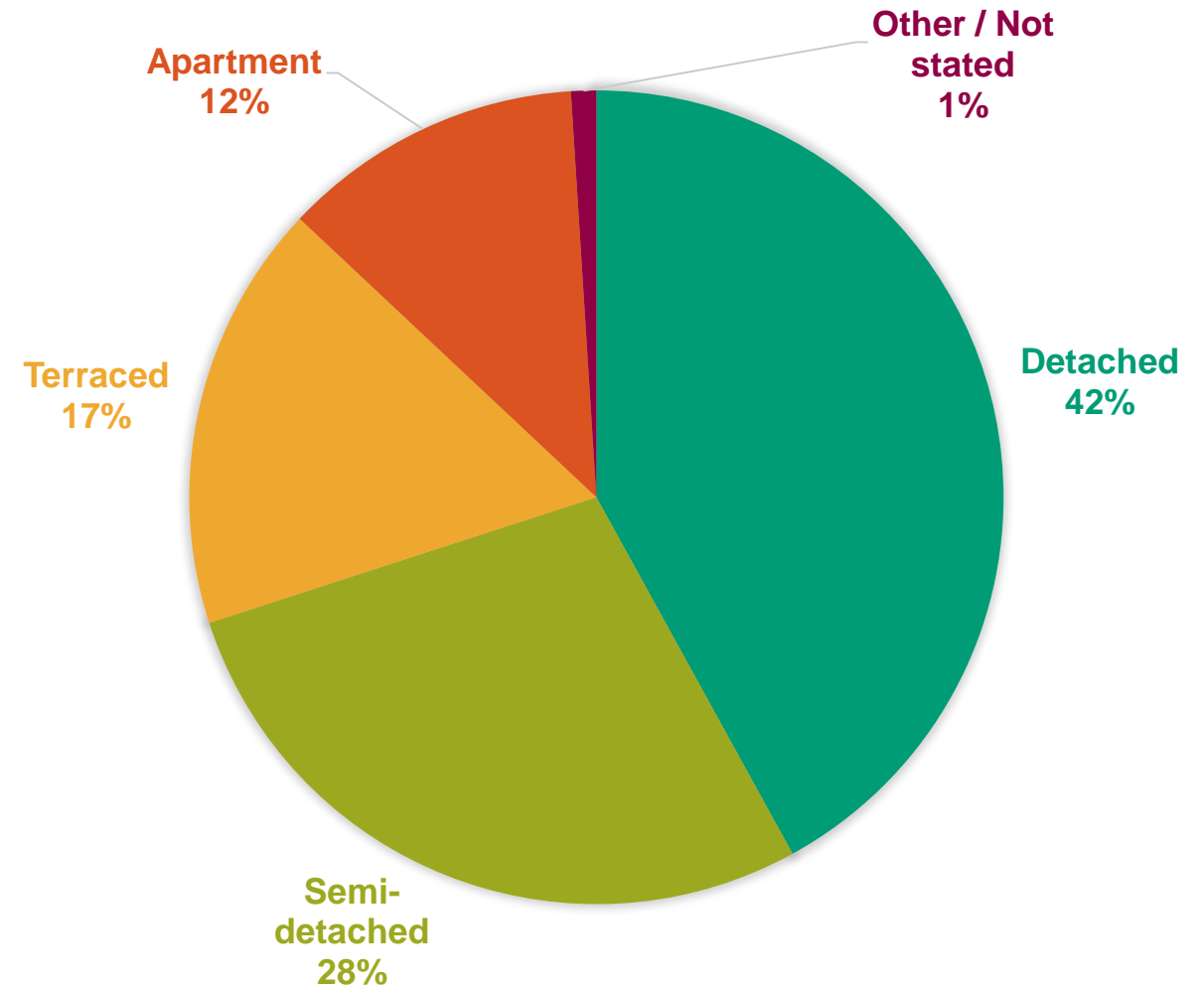
6.7% ↑

Increase in CO₂ from 2014 to 2016

Potential reasons include a fall in oil prices combined with an increase in disposable incomes leading to higher energy consumption.

Irish Building Stock – by type and occupancy

- 1.7 million occupied homes in Ireland¹
- 9% of occupied homes in 2016 are owned by Local Authorities and Approved Housing Bodies²
- In the order of 141,500 owned by Local Authorities and 11,000 owned by Approved Housing Bodies in 2016³



1: CSO: 2016 Census

2: ERSI Report, working paper 594 June 2018

3: Dept of Housing figures

Domestic Building Stock Upgrades in 2018

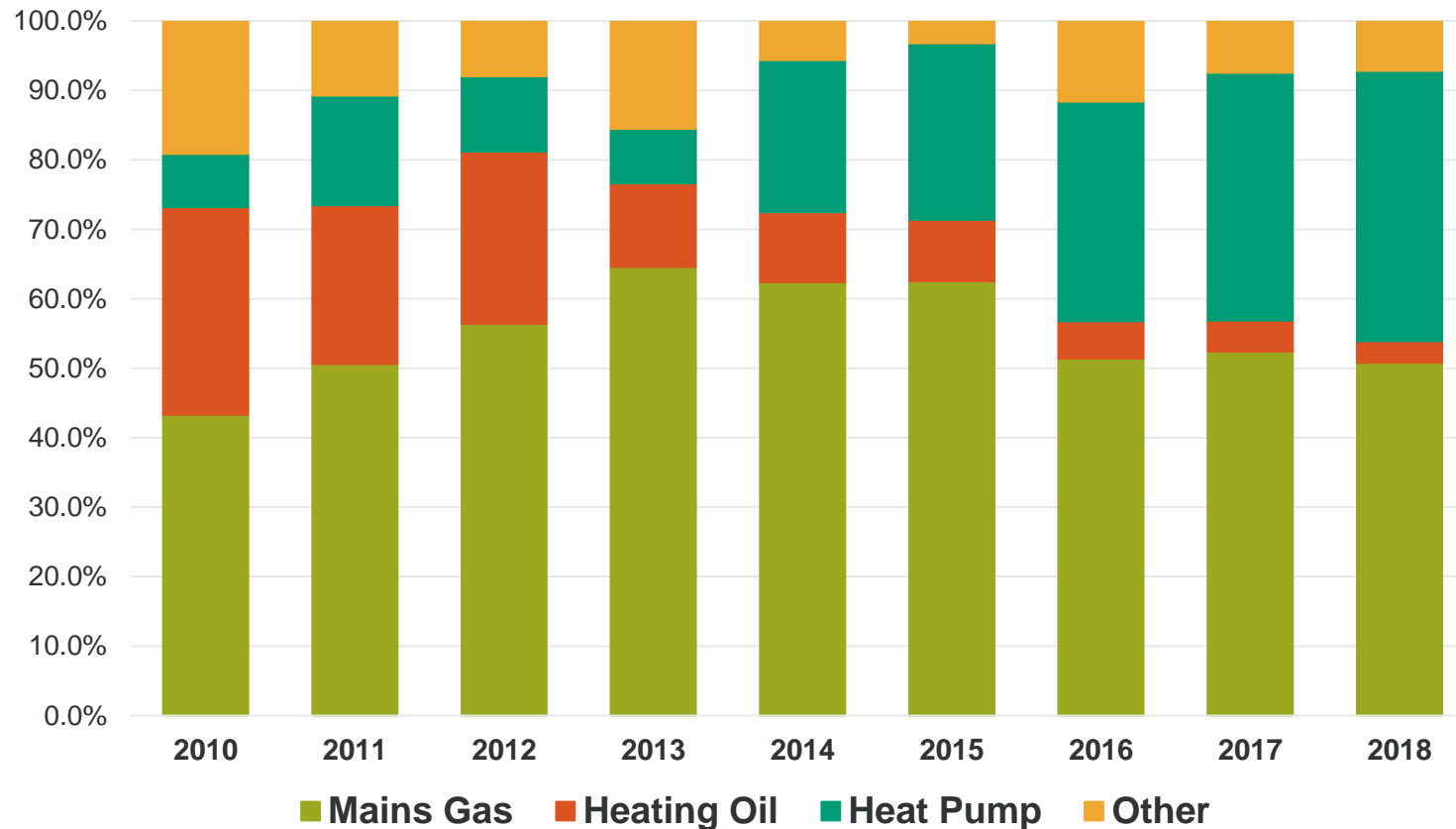
SEAI Supported and Energy Supplier Obligations

Programme	Number of homes upgraded	Estimated energy savings (GWh)	CO ₂ Savings (kt) SEA
SEAI Better Energy Homes	14,238	78.3	19.4
SEAI Better Energy Communities	1,188	73.0	18.1
SEAI Better Energy Warmer Homes	5,255	13.1	3.3
SEAI Warmth and wellbeing	455	3.2	0.8
SEAI Deep retrofit pilot	214	7.1	2.0
Total (SEAI Grant Programmes)	21,350	174.7	43.5
Energy Supplier Obligations	28,357	74.6	17
Grand Total	49,707	249	60.5

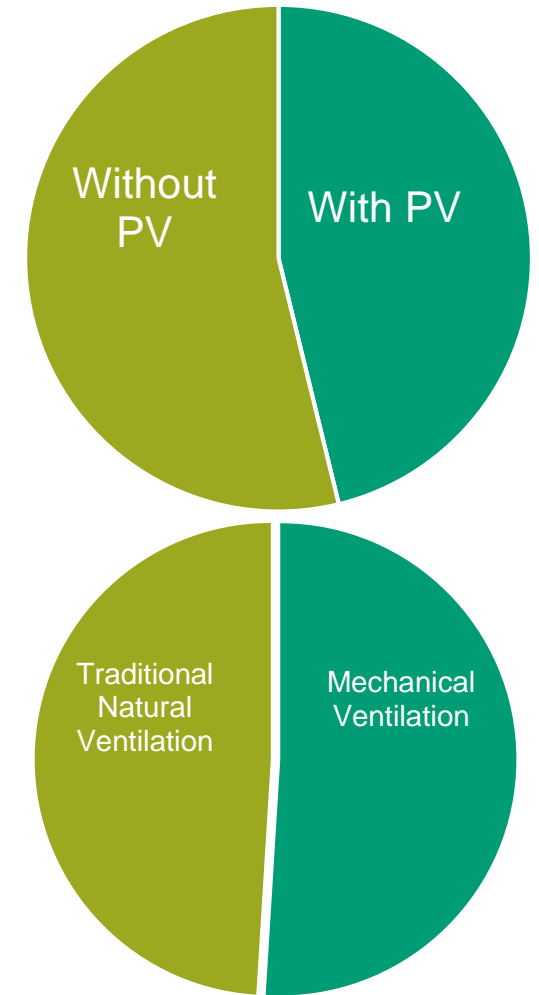
New Buildings

NZEB sees 25% Improvement on 2011 Building Regulations

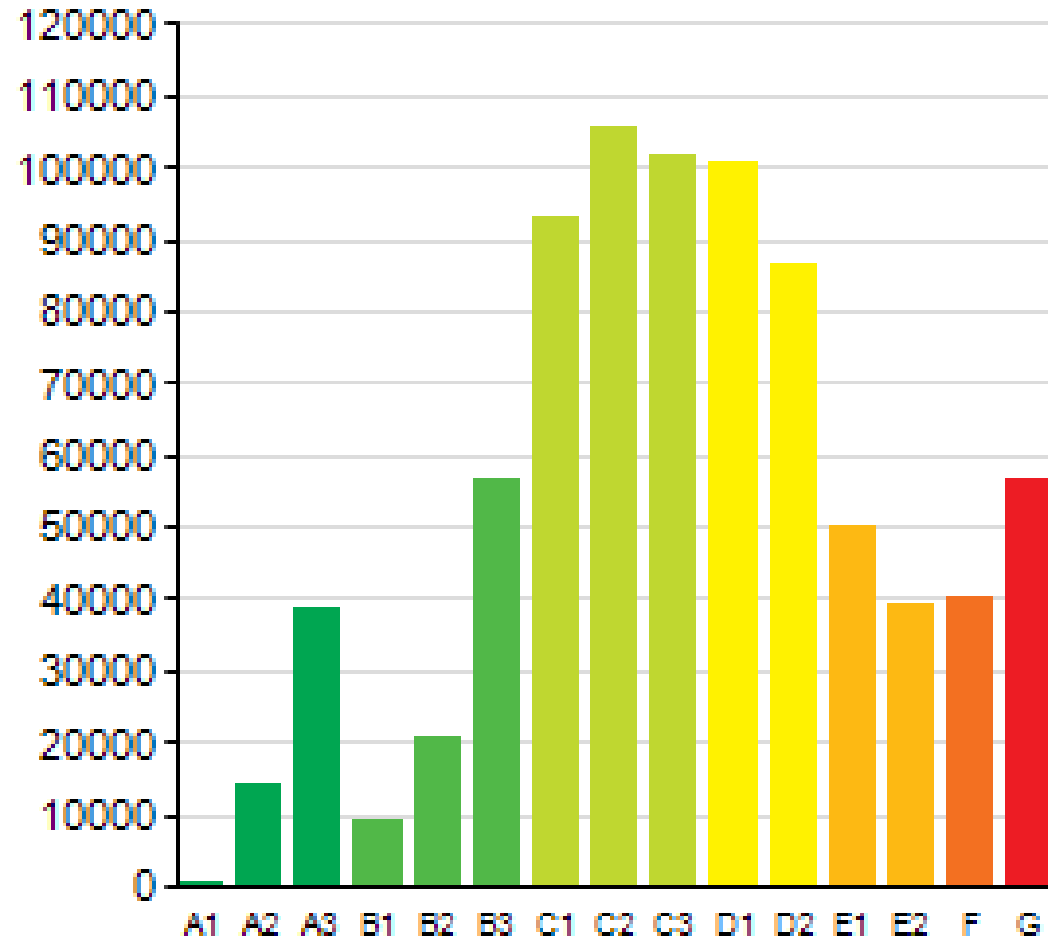
% of New Homes - Main Heating System



% of New Homes in 2018



Domestic BERs by Grade - 813,000 ratings



Climate Action Plan

CLIMATE ACTION PLAN 2019

To Tackle Climate Breakdown



Rialtas na hÉireann
Government of Ireland



Buildings



500,000

existing homes to upgrade to 'B2' equivalent BER by 2030

600,000

heat pumps installed by 2030

(of which 400,000 will be in existing buildings)



New retrofitting delivery model,
which will group retrofits together, leverage smart finance, and ensure easy pay-back methods



Electricity

70%

Electricity generated from renewable sources by 2030



Phase-out Coal and Peat electricity generation



Homeowners to generate their own electricity and sell back to the grid under scheme for **micro-generation**



Citizens and Communities

Engage Communities across the country through:

- Establishing a **Community Outreach Programme**
- Driving action through the **National Dialogue on Climate Action**
- Increase the number of Sustainable Energy Communities to **1,500**
- Develop **flagship low-carbon projects** in all Local Authorities



SEAI Home Energy Grant Programmes

- **Home Energy Grant Programme**
Individual energy upgrades for all homeowners.
- **Free Energy Upgrades Programme**
Delivering free energy upgrades to eligible homeowners who are in receipt of certain welfare payments
- **Communities Programme**
Assisting energy efficiency community projects through capital funding, partnerships and technical support.
- **Electric Vehicle Grants**
Assisting with installation of Home Chargers and purchase of EV

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

<https://www.seai.ie/community-energy/sustainable-energy-communities/>

Home Energy Grants

Fixed value grants for individual energy upgrades available to all homeowners including landlords:

- Attic insulation
- Wall insulation
- Heat Pump Systems
- Solar Water Heating
- Heating controls upgrade
- Building Energy Rating (BER) grant
- Solar PV (Pilot)



Free Energy Upgrades

Delivering free energy upgrades to eligible homeowners who are in receipt of certain welfare payments



- **Available energy upgrades:**

- Attic and Wall insulation
- Ventilation, mandatory where attic and/or wall insulation installed
- Other secondary measures such as lagging jackets, draught proofing & energy efficient lighting
- Occasionally, heating upgrades and/or window replacements may be recommended.

- **Eligibility:**

- Must own and live in your own home which was built & occupied before 2006
- In receipt of welfare payments - Fuel Allowance, Job Seekers Allowance for over six months and have a child under seven years of age, Working Family Payment, One-Parent Family Payment, Domiciliary Care Allowance, Carers Allowance and live with the person they are caring for
- Must not have received works previously under the scheme

Communities Grant

Assisting energy efficiency community projects through capital funding, partnerships, and technical support.

- Supporting a National Retrofit Initiative.
- Delivering energy savings to homeowners, communities, and private sector organisations.
- Community oriented with a cross-sectoral approach, and you must show that you can sustainably finance the proposed project.

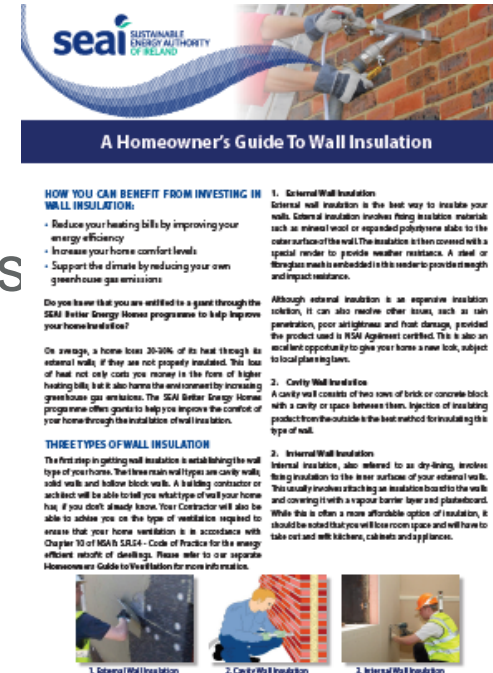


Housing Strand: New Pilot Programme

- Complimentary to the Sustainable Energy Community Network/ Community Grants
- Applicable to Local Authorities & Approved Housing Bodies
- Available grant:
 - 35% Local Authority
 - 50% Housing Association
- Objectives:
 - B2 or better - min requirement post works.
 - Developing direct partnerships with LA & Approved Housing Bodies
- SEAI will open for applications once the guidelines are published (NOV 2019).
- Website link for further details <https://www.seai.ie/grants/local-authority/>

Upskilling Industry and Educating Homeowners

- Grant Programmes
- Work with NSAI and DHPLG on standards
 - Heat Pump
 - Photovoltaic
 - Retrofitting
- National Specification for nZEB/ WWETB
- Educating the Homeowner



Changing Behaviour...



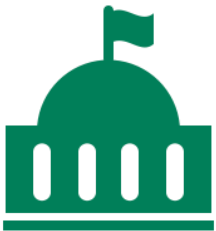
Understanding how people think about energy



Pre-testing policy tools & solutions



Field-testing policy solutions, scaling, and measuring impact



Designing policy through a behaviourally informed lens

seai SUSTAINABLE ENERGY AUTHORITY OF IRELAND

The Homeowner
76 Cedar Park
Leixlip
County Kildare

Dear Homeowner, **Why are we writing to you?**

Government grants for home energy upgrades from the Sustainable Energy Authority of Ireland (SEAI) can make your home* more comfortable, cheaper to run, and environmentally friendly.

Take a look at the enclosed leaflet to see the grants that are available from SEAI for you¹.

What are the benefits of retrofitting for me?

- Save money on your energy bills
- Make your home warmer and more comfortable
- Play your role in helping Ireland tackle climate change

What can I do next?

To find out more or apply for a grant, visit our website at:
www.seai.ie/grants/home-energy-grants
Or
Call us on 01 8082100

* We noticed this address has applied for planning permission in the past from the publicly-available National Planning Applications database.
* Homes must have been built and occupied before 2006 for insulation and heating control grants and before 2011 for heat pumps and rooftop solar grants.

Rialtas na hÉireann
Government of Ireland

NORTHERN IRELAND
Belfast

Dublin

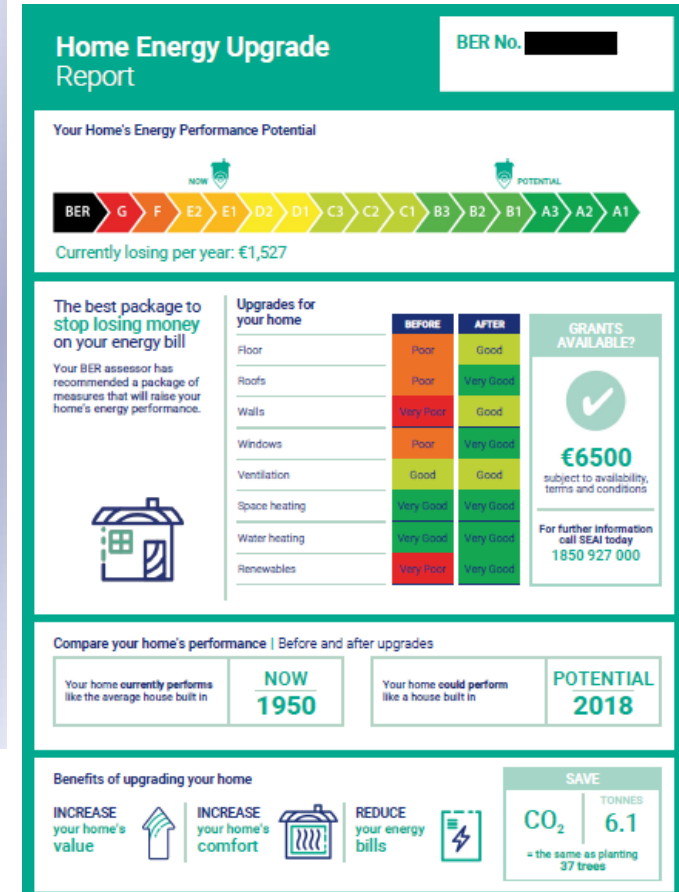
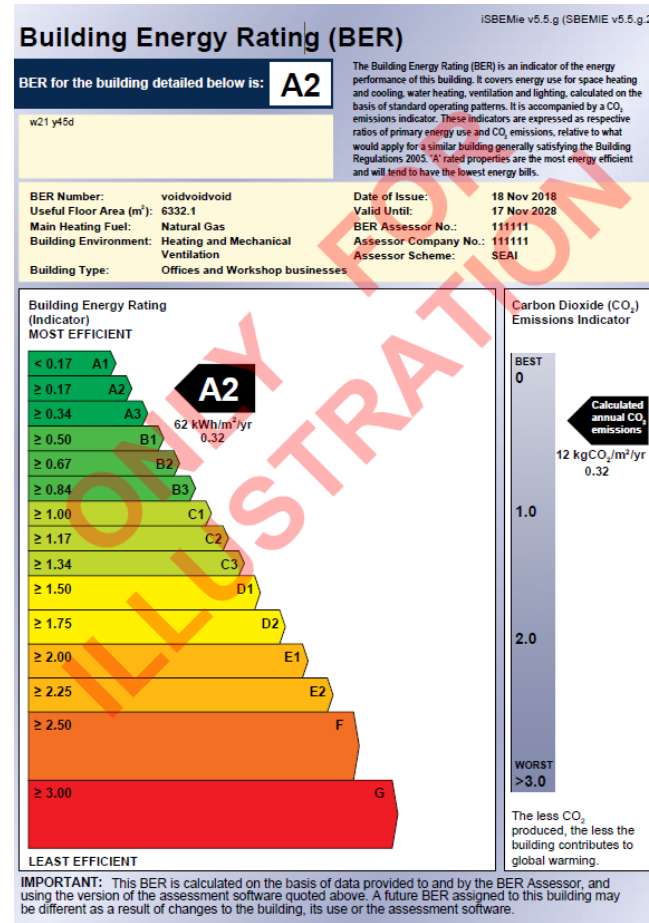
Cork

St. George's Channel

<https://www.seai.ie/technologies/seai-maps/ber-map/>

Building Energy Rating

- Refining methodology to reflect changes in technologies / energy profiles
- Guidance to home owners
- Quality Assurance
- Protecting the Building Owner



SEAI priorities to meeting ambition of Climate Action Plan

- Alternative options for finance housing retrofit finance
- One-stop-shop for homeowner journey
- Targeted approaches (e.g. area-based aggregation; public and approved housing stock)
- Minimum performance regulation
- Targeted communications - key decision points
- Skills and construction - standards, regulation and compliance



Thank You

Questions?



Rialtas na hÉireann
Government of Ireland