



Rialtas na hÉireann
Government of Ireland

Sustainable Housing Sustainable Communities

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SEAI – Sustainable Energy Authority of Ireland

- **Sustainability** → *"meeting the needs of the present without compromising the ability of future generations to meet their own needs"* – 1987 UN Bruntland Commission
- We are driving the **replacement of fossil fuel usage** in all sectors and across society



Residential Energy Consumption and Emissions

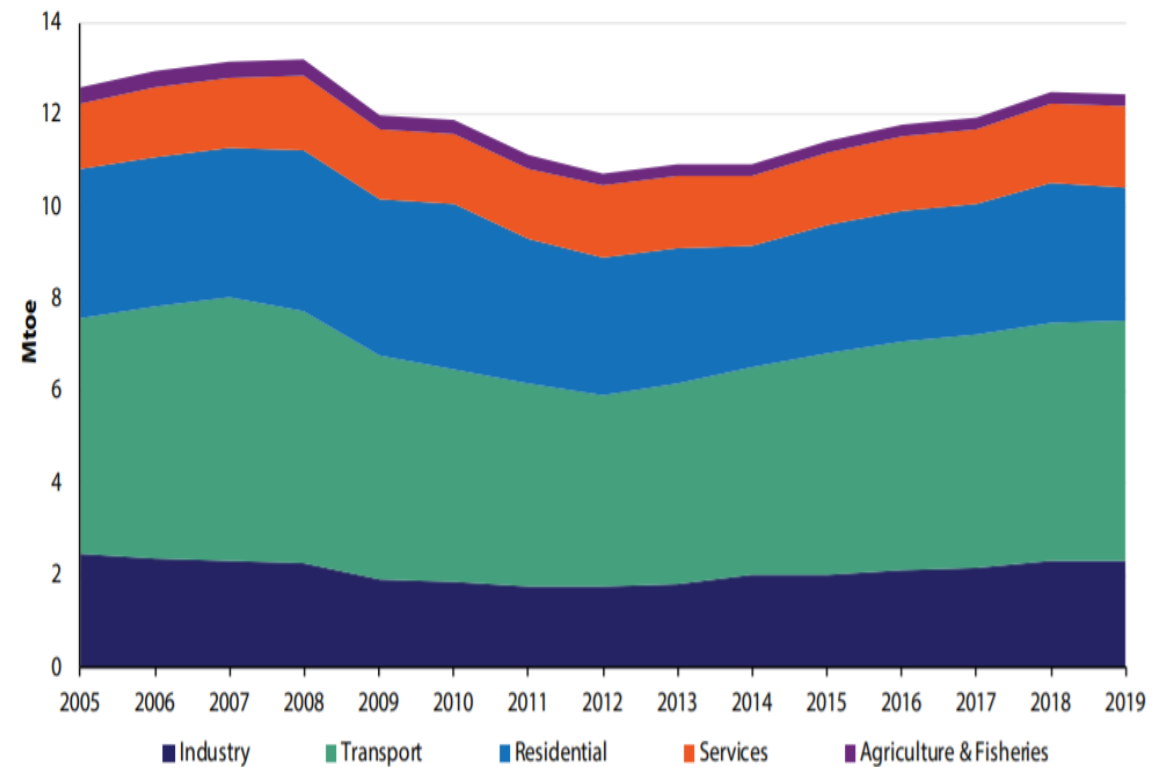
A **quarter of all energy used in Ireland** is consumed directly in homes. Second only to transport, and more than is used by industry

Residential sector is also responsible for a **quarter of the energy-related CO₂ emissions** - 11.4 % of all GHG emissions

Households – **the largest consumer of heat energy**

Overall, our buildings are **70% reliant on unsustainable fossil fuels**. (Oil/Gas)

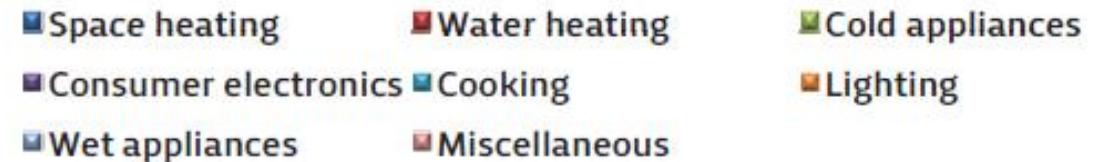
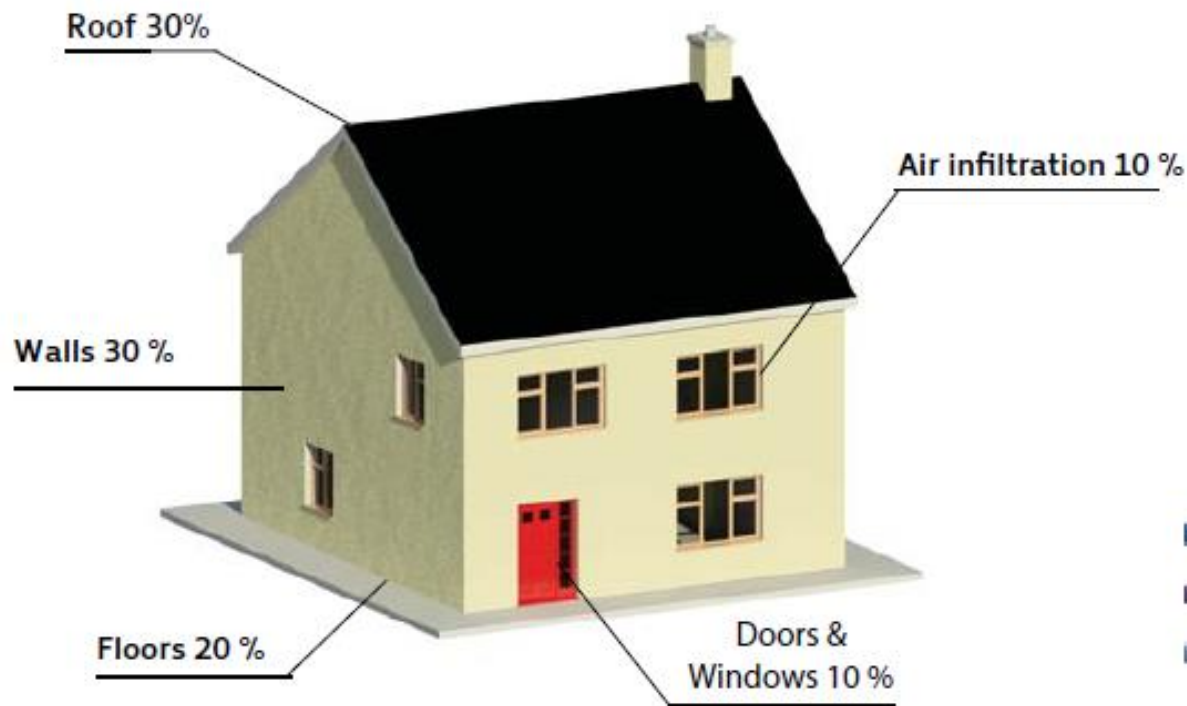
Total final consumption by sector



Source: SEAI

Home Heat Loss and Energy Use

Residential heating was responsible for **53% of CO₂ emissions from heating**



Residential Retrofit Targets

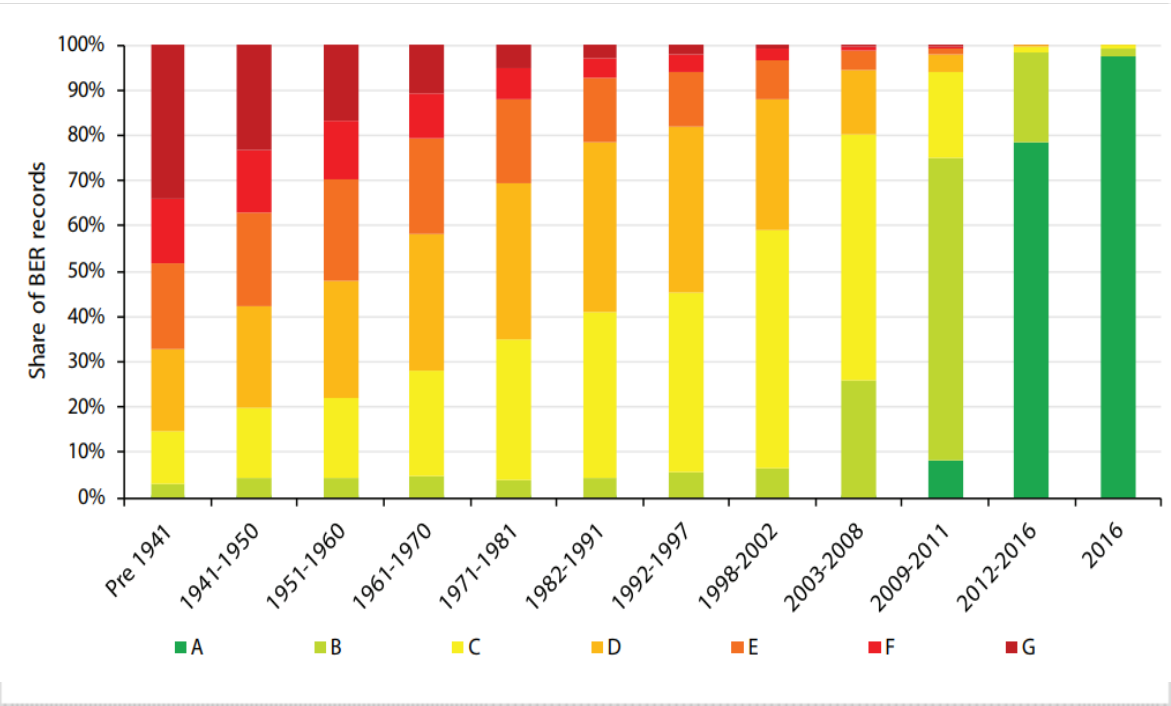
- 2030 target - reduce emissions from the residential sector from 7 Mt CO₂eq. in 2018 to 4 Mt CO₂eq. – 40% reduction – 3 Mt CO₂eq.
- Upgrade 500,000 homes (approx. 30% of total housing stock) to Building Energy Rating B2.
- Install 400,000 heat pumps in existing buildings to replace older heating systems.

Policy Context

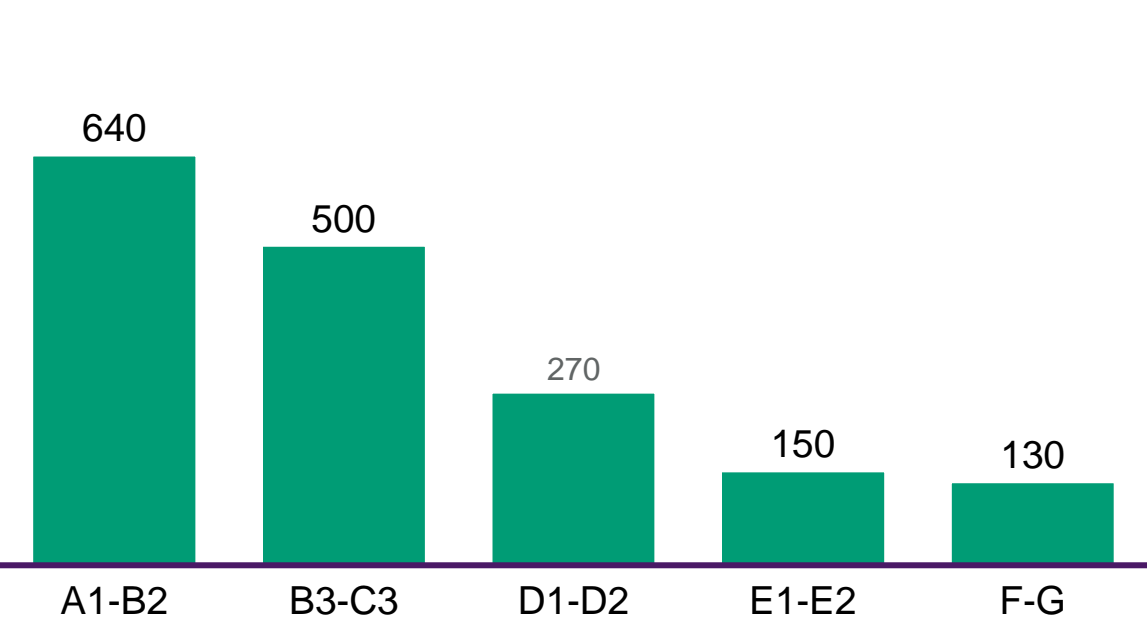
- Climate Action Plan (2019, 2021, 2023)
- Climate Action & Low Carbon (Amendment) Act 2021
- The National Retrofit Plan (2021)
- National Development Plan (2021)
- National Energy and Climate Plan (NECP) 2021-2030
- Long Term Renovation Strategy (2020)
- Programme for Government (2020)
- EU Renovation Wave Strategy / RE

Changes in the BER Distribution

Irish housing stock – current BER distribution, ‘000 homes



Irish housing stock –2030 BER distribution ‘000 homes



- Fundamental shift in the distribution of houses across the Building Energy Rating scale
- Much greater level of electrification of heat

SOURCE: Element Energy

Pillars of the National Residential Retrofit Plan (NRRP)

1. Driving demand and activity

Stimulate demand by building confidence in quality, ensuring value for money and simplifying the customer journey

3. Supply chain, skills and standards

Expand the capacity of the supply chain, introduce measures to increase the number of skilled workers while maintaining quality



2. Financing & funding

Clarify Exchequer financial commitment to residential retrofit and introduce measures to make home energy upgrades more affordable for households

4. Structures and governance

Ensure that the required structures and governance arrangements are in place to drive delivery

Broad strategy for delivering retrofit at scale



Alignment between SEAI retrofitting grant programmes → **Commoditise & Scale**



Incentivise (i) building fabric upgrades & (ii) renewables (heat pump) → **Sustainability**
achieve B2 - 100kW/h uplift



Constant review of schemes, costs & respond external environment new information (e.g. heat study) → **Agility**



Incorporate low-cost financing → **Affordability**

Driving demand and activity – Pillar 1

Key challenges:

- Awareness of retrofit → benefits of energy efficiency
- Technological awareness → e.g. Heat Pumps
- **Complexity** for Homeowner → too many decisions / **hassle** !

National Retrofit Plan actions:

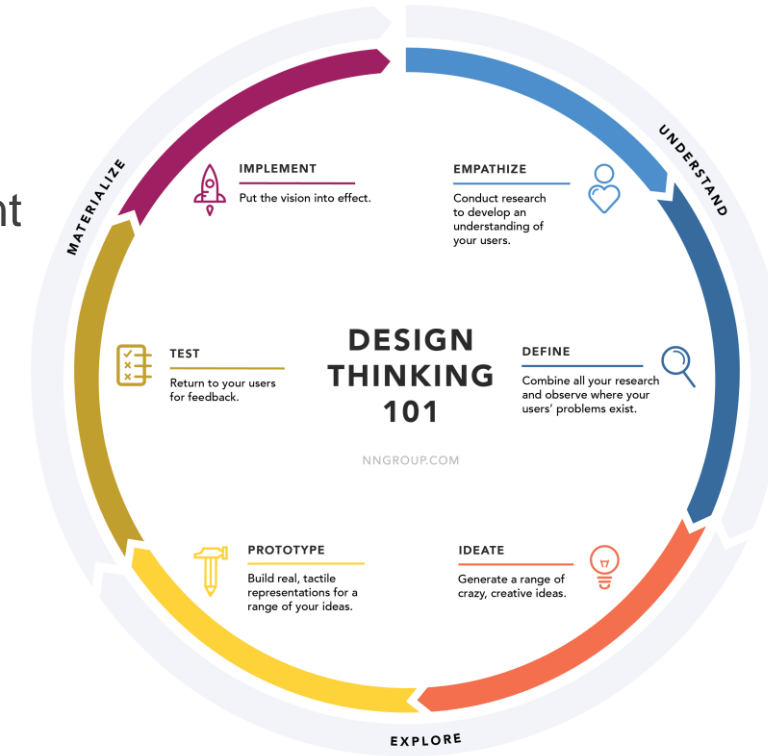
- Demand generation campaigns
- End to end service → **simplify the customer journey** (OSS)
- Focus on energy poverty – biggest ever budget (Warmer Homes Scheme)



Financing and Funding Models – Pillar 2

Key challenges:

- Perceived absence of multi-year funding commitment from Government
- Different mix of funding models needed for different parts of sector
 - Cost - Homeowner
 - Cost - Business



National Residential Retrofit Plan Funding:

Year	2022	2023	2024	2025	2026	2027	2028	2029	2030
Planned allocation (million)	€202	€291	€380	€469	€641	€898	€1,257	€1,760	€2,000

Supply Chain & Skills - Pillar 3

- **Long term policy certainty** EU & National
(Climate Action Plan 2021, NDP 2021, EU Renovation Wave)
- **Long term financial certainty** -- multi annual grants, and clarity out to the end of the decade
€8 billion to 2030
- **Retrofit will impact on every community in every county**, it is a national enterprise not only focused on larger towns and cities - positive for rural economy - transformative impact on communities
- Considerable interest from wider construction sector – **Retrofitting is a stable long term opportunity (provides insulation from more cyclical nature of some construction sectors)**
- **Supply chain is being activated** upskilling of workforce. SEAI have linked to ETBs and are working with contractors to develop the labour supply chain – **Significant constraints in the sector**



Key Challenges - VUCA Environment (Volatile, Uncertain, Complex, Ambiguous)



Potential +ive of current environment

Energy crisis / cost of living

- *stimulate demand for retrofit in short term*

Underlying demand – currently strong

- *Strong interest across all in schemes*

‘Slow’ down in wider construction sector

- *Retrofit sector seen as stable and less risky?*

Climate targets (Statutory)

- *Greater awareness of rationale and basis for retrofit*



Potential –ive of current environment

Supply chain (Labour / material)

- most significant concern impacting on delivery

Energy crisis / cost of living

- impact on demand in med/long term - consumer sentiment

Interest rates / inflation

- Consumers defer decision - retrofit become too expensive

So what is a sustainable home ?

- Warm & dry – comfortable
- Well insulated & well ventilated
- Good indoor air quality
- Energy efficient & cheaper to run
- Uses renewable technology for heating and electricity (heat pump / solar)
- Has tangible benefits on individuals health (Warmth & Wellbeing Study)



“Initial analysis suggests the energy efficiency interventions have improved participants’ health and perceptions of home warmth. 80% of participants reported that their home was ‘much too cool’ before the intervention, while more than 80% reported that their home was ‘comfortably warm’ afterwards”

“Results of the SGRQ instrument suggest the intervention has resulted in an improvement in self-reported respiratory health across all four SGRQ scores. Similar, there appear to be consistent benefits across all dimensions of SF-36, representing physical and mental functioning”

**Health impact evaluation of the ‘Warmth & Wellbeing’ scheme -
London School of Tropical Medicine & Hygiene – Dec 2021**



Thank you for listening

For more information visit seai.ie

