

CLIMATE  
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COUNCIL



ANNUAL REVIEW 2026



**Built Environment**

# Annual Review 2026: Built Environment

Submitted to the Minister for Climate, Energy and the Environment  
on 27 July 2026

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ISBN: 978-1-80009-356-0

How to cite:

Climate Change Advisory Council (2026), *Annual Review 2026: Built Environment*. <https://www.climatecouncil.ie/councilpublications/>



## Acknowledgements

The Climate Change Advisory Council would like to acknowledge the significant contributions of the Secretariat of the Climate Change Advisory Council to the drafting of this part of the Annual Review 2026, especially:

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Dylan O'Flynn

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The Climate Change Advisory Council also acknowledges the contributions of the following in the preparation of this Review:

- ▶ the Adaptation Committee of the Climate Change Advisory Council,
- ▶ the Environmental Protection Agency,
- ▶ the Sustainable Energy Authority of Ireland.

The Climate Change Advisory Council would also like to thank:

- ▶ Ecodiversity for their provision of technical and project management services,
- ▶ Prepress Projects for their copy-editing, proofreading, design and typesetting of this Review.



## Summary for All

### Key observations

The Built Environment sector includes residential, commercial and public buildings. In 2025, residential building emissions fell by 5.0% and commercial and public buildings emissions by 3.5%, primarily due to a decrease in the number of days requiring heating. While the sector as a whole is estimated to have remained within its first sectoral emissions ceiling (2021–2025), the residential sector is projected to exceed its second sectoral emissions ceiling (2026–2030) by 22% and the commercial and public buildings sector by 62%, even with full implementation of all additional policies.

The number of homes upgraded to a Building Energy Rating B2 or better through Sustainable Energy Authority of Ireland schemes increased by 20% in 2025. While the number of heat pumps installed increased by 21% year on year, total installations reached only 41% of the 2025 target. There was a 5% increase in retrofits delivered under the Warmer Homes Scheme in 2025, but, while there was a 2.5% increase in the number of local authority homes retrofitted, progress is not at the pace needed to achieve the 2030 target. The introduction of new and enhanced grants for home energy upgrades in January 2026, followed by a 96% year-on-year increase in applications in the first 3 months of the year, indicates a strong appetite for retrofitting where financial supports improve affordability and are accessible.

### Key recommendations

#### Reduce fossil fuel dependency

The Government should maintain the planned trajectory and ring-fencing of the carbon tax in order to support vulnerable households to transition away from costly fossil fuels for home heating. Any additional cost-of-living supports introduced during the fossil fuel crisis should be temporary and targeted towards the most vulnerable. Longer-term action on energy affordability should include accelerating the adoption of solar photovoltaics for rented and social housing.

#### Accelerate low-carbon heating and retrofitting

The delayed National Building Renovation Plan should be urgently published and include a clear plan to phase out fossil fuel boilers by 2040 or sooner, as required by the EU Energy Performance of Buildings Directive. Approximately 90% of current heat demand is met by fossil fuels, so a clear policy framework for decarbonising heat should be established, including the implementation of a national heat strategy and urgent finalisation of both the Heat Bill and the Geothermal Energy Bill. The Government should provide sustained and increased funding to accelerate the retrofitting of social housing, and existing retrofit funding schemes should be reviewed to identify barriers, improve accessibility and increase participation.

#### Enhance building resilience

The National Building Renovation Plan should integrate resilience into building renovations, including flood protection, water use efficiency and improved thermal regulation measures. The Government should revise the Built Environment and Planning sector scoping exercise and put a clear programme of work in place so that the sector is prepared to deliver and implement a dedicated sectoral adaptation plan in the next cycle. The Government should also expedite the development of coastal change management plans in priority vulnerable areas, including strategic and proactive consideration of planned relocation where necessary.



## Abbreviations

| Abbreviation | Definition                                           |
|--------------|------------------------------------------------------|
| AHB          | approved housing body                                |
| BER          | Building Energy Rating                               |
| BRP          | building renovation passport                         |
| CAP          | Climate Action Plan                                  |
| CCMP         | coastal change management plan                       |
| DCEE         | Department of Climate, Energy and the Environment    |
| DETE         | Department of Enterprise, Tourism and Employment     |
| DHLGH        | Department of Housing, Local Government and Heritage |
| DPT          | Derelict Property Tax                                |
| EERP         | Energy Efficiency Retrofit Programme                 |
| EGEC         | European Geothermal Energy Council                   |
| EIB          | European Investment Bank                             |
| EPA          | Environmental Protection Agency                      |
| EPBD         | Energy Performance of Buildings Directive            |
| ESRI         | Economic and Social Research Institute               |
| ICNF         | Infrastructure, Climate and Nature Fund              |
| IGBC         | Irish Green Building Council                         |
| LACAP        | local authority climate action plan                  |
| MEPS         | minimum energy performance standard                  |
| NBRP         | National Building Renovation Plan                    |
| NDP          | National Development Plan                            |
| NEAT         | National Energy Affordability Taskforce              |
| NZEB         | nearly zero energy building                          |
| OSS          | one-stop shop                                        |
| PV           | photovoltaic                                         |



| Abbreviation | Definition                              |
|--------------|-----------------------------------------|
| RES-H        | renewable energy used in heat           |
| SAP          | sectoral adaptation plan                |
| SEAI         | Sustainable Energy Authority of Ireland |
| SEC          | sectoral emissions ceiling              |
| WAM          | with additional measures                |
| WEM          | with existing measures                  |
| WHS          | Warmer Homes Scheme                     |

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## Key observations

### Built environment emissions and trends

- ▶ Emissions from residential buildings decreased by an estimated 5.0% in 2025 compared with 2024.<sup>[1]</sup> Sustained emissions reductions are required in the sector, through implementing energy efficiency measures and decarbonising heating systems.
- ▶ The Environmental Protection Agency's (EPA's) provisional inventory data for 2025 indicate that the residential buildings sector met its first sectoral emissions ceiling (SEC), emitting 28.3 Mt CO<sub>2</sub> eq by the end of 2025 (97.4%); however, the EPA's projections indicate that the sector is likely to exceed its second SEC by 5 Mt CO<sub>2</sub> eq (21.7%) for the period 2026–2030.
- ▶ Emissions in the commercial and public buildings sector decreased by an estimated 3.5% in 2025.<sup>[1]</sup>
- ▶ The EPA's provisional inventory data for 2025 indicate that the commercial and public buildings sector met its first SEC, emitting 6.97 Mt CO<sub>2</sub> eq by the end of 2025 (99.5%); however, the sector is projected to exceed its second SEC by 3.1 Mt CO<sub>2</sub> eq (62.2%) for the period 2026–2030.

### Retrofitting and decarbonisation of heating systems

- ▶ The number of Building Energy Rating (BER) B2 or better-rated retrofits achieved under Sustainable Energy Authority of Ireland (SEAI) schemes increased by 20%, from 21,842 in 2024 to 26,316 in 2025. The total number of BER B2 or better-rated retrofits achieved between 2019 and 2025 now stands at 84,270, against a Climate Action Plan (CAP) target of 120,000 by the end of 2025.
- ▶ The number of heat pump installations increased from 3,602 in 2024 to 4,370 in 2025. This represents a 21% increase year on year. The total number of heat pumps installed from 2019 to 2025 was 18,580, against a CAP target of 45,000 by the end of 2025.<sup>[2]</sup>
- ▶ There was a 5% increase in retrofits under the Warmer Homes Scheme (WHS), from 7,742 in 2024 to 8,134 in 2025,<sup>[2]</sup> with the average applicant waiting time being 22 months for the worst-performing buildings.
- ▶ The number of local authority units retrofitted increased from 2,607 in 2024 to 2,671 in 2025,<sup>[3]</sup> a 2.5% rise. Since 2021, a total of 10,370 local authority homes have been retrofitted against a target of 36,500 homes brought to a BER B2/cost-optimal by 2030.
- ▶ The latest EPA projections have revised downwards significantly the with additional measures (WAM) scenario for deployment rates of district heating. Under the WAM scenario, only 0.2 TWh in district heating is expected to be in place by 2030.<sup>[4]</sup>





The CAP target for district heating was 2.7 TWh by 2030; this is presumed to be achieved by 2040 in the latest EPA projections.<sup>[5]</sup> This disappointing lack of progress reflects significant delays to the implementation of the necessary legislation and regulatory framework and a lack of funding certainty for key projects.

### Key recommendations

1. The Council recommends maintaining the planned trajectory and ring-fencing of the carbon tax to support the most vulnerable to transition away from fossil fuel use. Any additional supports provided during the fossil fuel crisis should be targeted and temporary, and implemented through existing measures such as the Living Alone Increase, the One-Parent Family Payment and the Rental Tax Credit.
2. The Council recommends that the Department of Climate, Energy and the Environment (DCEE) and the Department of Housing, Local Government and Heritage (DHLGH) accelerate the deployment of solar photovoltaics (PVs) to address energy affordability, with a focus on renters, including approved housing body-owned properties and social housing. This should include:
  - a. mandating and adequately funding the roll-out of solar PV across local authority housing stock in addition to existing energy efficiency upgrades,
  - b. funding solar PV installation under the WHS,
  - c. advancing plug-in solar, supported by a clear national framework and implementation plan, to enable apartment dwellers and renters to participate in the energy transition.
3. The Council recommends that DCEE urgently publish the delayed draft National Building Renovation Plan, ensuring that it includes a clear plan for the phase-out of fossil fuel boilers by 2040, as required under the EU Energy Performance of Buildings Directive. The plan should address aspects of climate resilience, including flood protection, improved water use efficiency, indoor thermal regulation and building improvements, to reduce vulnerability to extreme wind events.
4. The Council recommends that the Government allocate increased and sustained funding in Budget 2027 to enable local authorities to deliver an accelerated step change in the retrofitting of social housing with the objective of, at a minimum, meeting its own target by 2030.
5. The Council recommends developing and implementing a national heat strategy based on spatial planning, system diversity and resilience for the successful delivery of the heat transition, in line with SEAI's heating and cooling assessment.
6. The Council recommends that the Heat (Networks and Miscellaneous Provisions) Bill be urgently finalised and enacted in the short term and that work to commence the Geothermal Energy Bill be expedited to establish a clear legislative framework for the deployment of both district heating and geothermal energy in Ireland.



7. The Council recommends that the Government expedite the development of coastal change management plans (CCMPs), supported by three pathfinder schemes, as identified in the Programme for Government 2025, in priority vulnerable areas. The CCMPs should determine the most appropriate adaptation options for identified at-risk coastal areas, and a strategic, proactive approach to planned relocation should be undertaken for properties vulnerable to coastal flooding and erosion.
8. The Council recommends that DHLGH revise the Built Environment and Planning sector scoping exercise and develop a structured programme of work to ensure the department is in a position to develop and implement a sectoral adaptation plan (SAP) for the Built Environment and Planning sector in the next SAP cycle.



# 1. Introduction

The Built Environment sector, which includes residential, commercial and public buildings, accounted for 12.5% of total greenhouse gas emissions in 2025. Emissions from the sector are primarily attributed to fossil fuel use in space and water heating. Decarbonisation of the built environment brings many co-benefits, such as better indoor and outdoor air quality, improved comfort and health, energy security and reduced dependence on volatile fossil fuel prices, for Irish homes and businesses.

Recent conflict in the Middle East has highlighted how Ireland’s dependence on imported fossil fuels leaves households and businesses exposed to global energy shocks, price volatility and supply risks. Accelerating the shift to low-carbon heating and delivering more energy-efficient homes can build resilience in a complex geopolitical landscape, address energy poverty and improve comfort in the home.

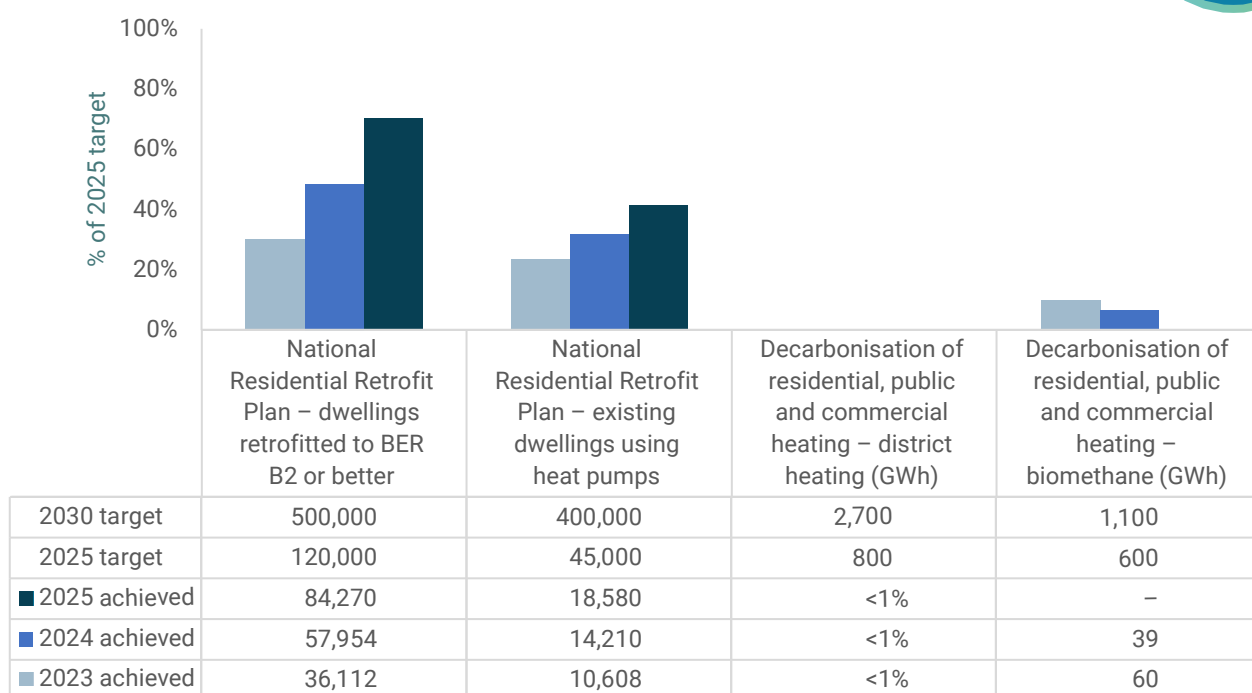
# 2. Sectoral emissions ceilings and key Climate Action Plan targets

The sectoral emissions ceilings (SECs) for the residential and commercial/public Built Environment sectors are detailed in **Table 1**. **Figure 1** provides an overview of progress against several key performance indicators set out in the Climate Action Plan (CAP). Progress in relation to both district heating and biomethane has been extremely limited. Rapid, deep and sustained corrective action is required, including the passing of key legislation and other enabling conditions, to correct course if 2030 targets are to be attained for the sector against any of these key metrics.

**Table 1: Reported emissions for 2021–2024 and provisional emissions for 2025 in the context of the SEC for the first carbon budget period, 2021–2025.**

(Sources: Ireland’s Final Greenhouse Gas Emissions 1990–2024<sup>[6]</sup> and Ireland’s Provisional Greenhouse Gas Emissions 1990–2025.<sup>[1]</sup>)

| Sector            | Carbon budget period | SEC                      | Provisional emissions 2021–2025 | Provisional SEC used 2021–2025 |
|-------------------|----------------------|--------------------------|---------------------------------|--------------------------------|
| Residential       | 2021–2025            | 29 Mt CO <sub>2</sub> eq | 28.3 Mt CO <sub>2</sub> eq      | 97.4%                          |
| Commercial/public | 2021–2025            | 7 Mt CO <sub>2</sub> eq  | 6.97 Mt CO <sub>2</sub> eq      | 99.5%                          |



**Figure 1: Progress on key Built Environment sector national CAP targets.**

BER, Building Energy Rating. Biomethane data for 2025 are not available at the time of writing.

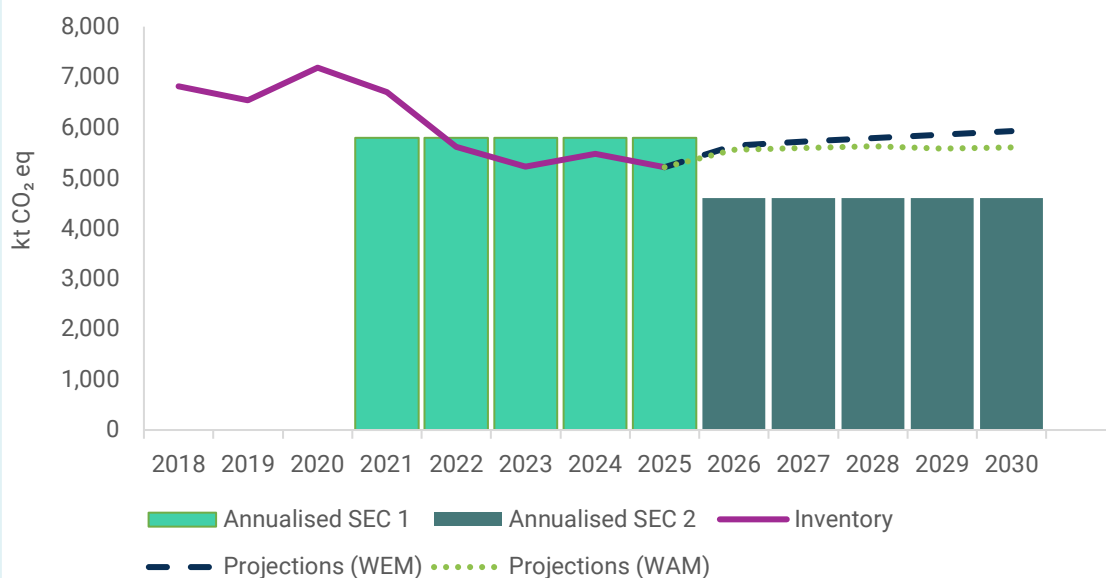
(Sources: Input Assumptions for National Energy Projections and Associated Greenhouse Gas Emissions 2025–2055,<sup>[5]</sup> Sustainable Energy Authority of Ireland Dashboard<sup>[2]</sup> and Energy in Ireland 2025 Report.<sup>[7]</sup>)

### 3. Indicators

#### 3.1. Residential built environment emissions and main trends

In 2025, emissions from the residential Built Environment sector were 5.2 Mt CO<sub>2</sub> eq, representing a 5.0% decrease compared with 2024 based on the Environmental Protection Agency's (EPA's) provisional greenhouse gas emissions inventory. The provisional inventory data for 2025 indicate that the residential buildings sector met its first SEC, emitting 28.3 Mt CO<sub>2</sub> eq by the end of 2025 (97.4%). However, the EPA's projections indicate that the sector is likely to exceed its second SEC by 5 Mt CO<sub>2</sub> eq (21.7%) (see [Figure 2](#)). Rapid corrective action is required to attain the 2030 target.

The share of renewable energy used in heat (RES-H) has increased by 2.7% over 11 years, from 5.2% in 2013 to 7.9% by the end of 2024. Progress in increasing RES-H remains modest and has consistently fallen short of the trajectory required to meet Ireland's national and EU 2030 RES-H targets of 24% and 15.8%, respectively, leaving Ireland exposed to paying for mandatory statistical transfers from EU Member States that have achieved their targets.



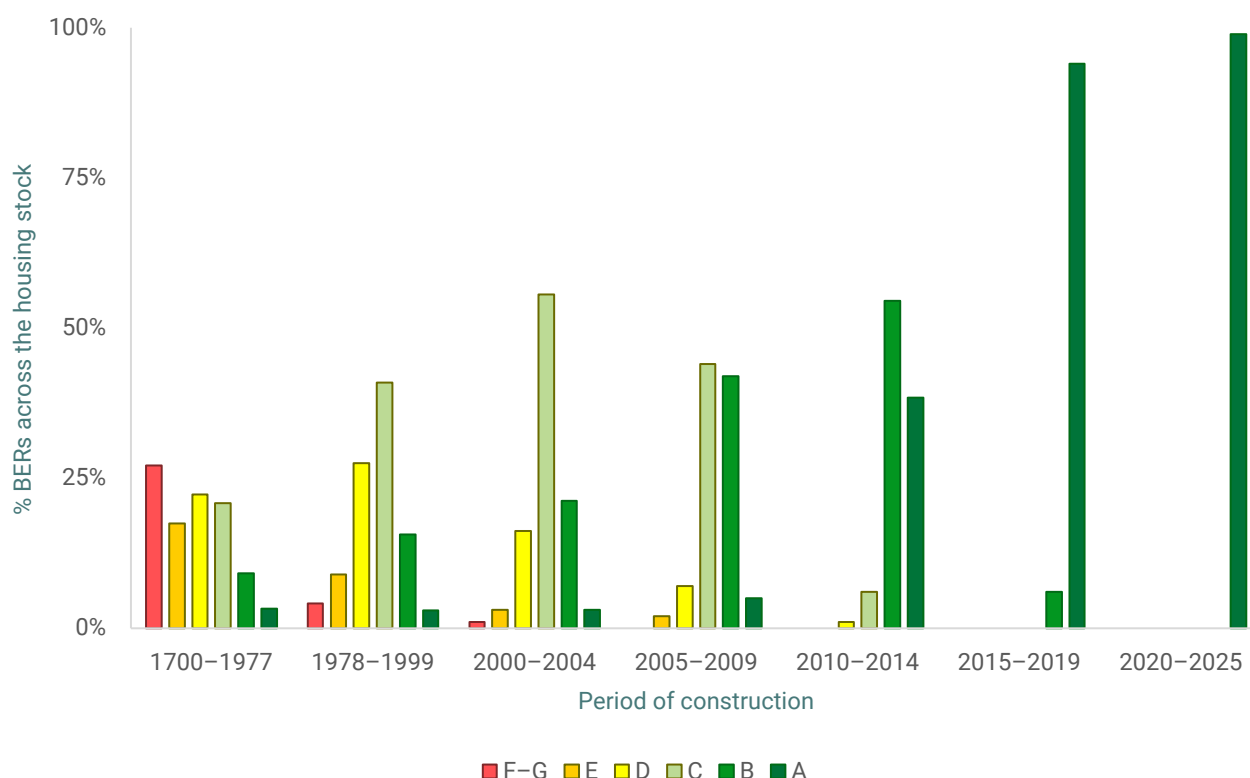
**Figure 2: Inventory and projected greenhouse gas emissions for the residential Built Environment sector, 2018–2030, with annualised SECs.**

WEM, with existing measures; WAM, with additional measures.

(Sources: Ireland's Provisional Greenhouse Gas Emissions 1990–2025<sup>[1]</sup> and Ireland's Greenhouse Gas Emissions Projections 2025–2055.<sup>[4]</sup>)

In terms of the fuels used for space and water heating, the use of coal, kerosene and natural gas decreased by 13.5%, 4.8% and 5.2%, respectively, while peat usage remained unchanged. For residential dwellings constructed between 2020 and 2025, electricity is the main space heating fuel in 94% of Building Energy Rating (BER)-assessed dwellings, while mains gas accounts for 6% and heating oil is effectively absent. However, older homes remain much more dependent on fossil fuels.<sup>[8]</sup> Mains gas and heating oil were the most widely reported space heating fuels, at 70% of all BER-rated dwellings.<sup>[8]</sup>

Reliance on fossil fuels is further reflected in heating oil consumption trends. For example, kerosene deliveries for residential heating decreased by 4.5% in 2025 compared with 2024 levels but remained 3.2% higher than in 2022 and 3.8% higher than in 2023.<sup>[9]</sup> This suggests that, while there was a year-on-year reduction in heating kerosene deliveries in 2025, demand for home heating oil remains substantial and is sensitive to market conditions. Although BER A-rated homes account for 99% of BER-assessed dwellings constructed between 2020 and 2025 (Figure 3), they represent only 18% of the overall housing stock, with B1 to B3-rated dwellings accounting for a further 17%. This indicates that a large share of the existing housing stock remains less energy efficient while also continuing to rely on fossil fuels for heating.



**Figure 3: Distribution of BER categories across the housing stock by period of construction, expressed as a percentage of the total.**

(Source: Domestic Building Energy Ratings quarter 4 2025.<sup>[8]</sup>)

Geographical disparities can also be seen, with oil remaining the dominant main-space heating fuel in many rural counties outside the gas network. For example, oil accounts for 73% of main-space heating fuel used in County Donegal compared with 10% in County Dublin. This level of dependence on home heating oil creates challenges for Ireland in meeting its climate and energy targets. While there has been a move towards strengthening grant support for the adoption of heat pumps and solar photovoltaics (PVs), reducing this dependence will require a further push for grant reform, electrification of heat, solar PV uptake, domestic battery use, timely grid upgrades and distributed generation (see Section 5.4).

### 3.2. Commercial and public built environment emissions and main trends

In 2025, the commercial and public Built Environment sector emitted 1.4 Mt CO<sub>2</sub> eq, representing a 3.5% decrease compared with 2024 based on the EPA's provisional greenhouse gas emissions inventory.

The provisional inventory data for 2025 indicate that the sector has stayed within its first SEC, emitting 6.97 Mt CO<sub>2</sub> eq, 99.5% of the total. However, the latest projections suggest it will exceed its second SEC by 3.1 Mt CO<sub>2</sub> eq (62.2%) (see Figure 4). The latest EPA 2025 with additional measures

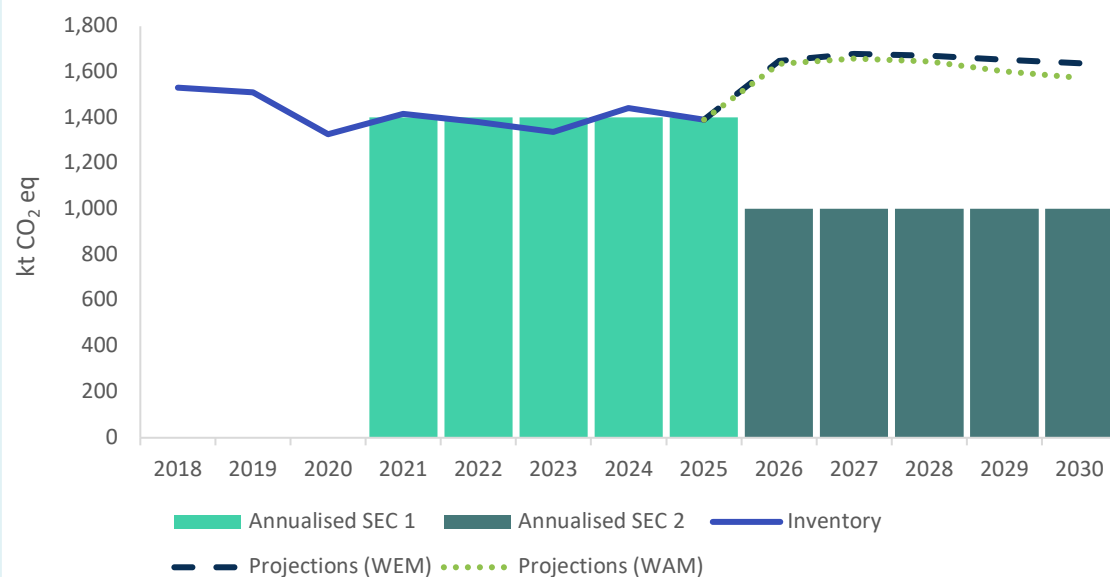


(WAM) projection shows emissions for the sector rising from 1.4 Mt CO<sub>2</sub> eq in 2025 to 1.6 Mt CO<sub>2</sub> eq in 2030, equivalent to a 13% increase.<sup>[4]</sup> This is a stark upwards revision from the 2024 projections, which projected a fall of 33% between 2025 and 2030 under the WAM scenario.<sup>[10]</sup> This change is due to updated input assumptions that reflect a redistribution of biomethane to all end users, resulting in less availability for the commercial sector, as well as a more conservative uptake of low-carbon technologies such as heat pumps and district heating, with more buildings remaining on oil and gas heating. As a result, the sector is now projected to significantly underperform on its 45% emissions reduction target<sup>[11]</sup> and, without rapid new policy interventions, overshoot its 2026–2030 SEC by 62%.

Projected emissions for the commercial and public Built Environment sector should also be considered in the context of growing energy demand from data centres, as their on-site fossil fuel use is incorporated into the sector's national emissions and projections accounting.<sup>[12]</sup> Following the publication of the Commission for Regulation of Utilities' Large Energy Users Connection Policy<sup>[13]</sup> and the Department of Enterprise, Tourism and Employment's (DETE's) Large Energy User Action Plan,<sup>[14]</sup> new data centres will be required to provide on-site or proximate generation and/or storage capacity to match their import capacity (of which 80% must be new renewable capacity after 6 years) and participate in the wholesale electricity market. As a result, on-site fossil gas use by data centres is expected to increase as approximately 5.8 GW of new data centre capacity is added in the medium term.<sup>[15]</sup>

The Council expresses its extreme disappointment that new data centres will not be required to ensure that their electricity demand be entirely met with new renewable generation. In line with the Council's previous recommendations, new data centre connections should be permitted only when the developer can guarantee that sufficient new renewable capacity in excess of the maximum electricity demand of the data centre will be connected to the grid in advance of commissioning.<sup>[16]</sup>

For this reason, it is critical that the deployment of renewable energy projects is accelerated through an unhindered and sufficiently resourced planning system and that private wires do not permit the proliferation of fossil fuel infrastructure under any circumstances. This would contribute to further fossil-fuel lock-in for a sector that is already projected to exceed its emissions ceiling (see the Council's 2026 Electricity sectoral review for further information<sup>[16]</sup>) (Figure 4).



**Figure 4: Inventory and projected greenhouse gas emissions for the commercial and public Built Environment sector, 2018–2030, with annualised SECs.**

WAM, with additional measures; WEM, with existing measures.

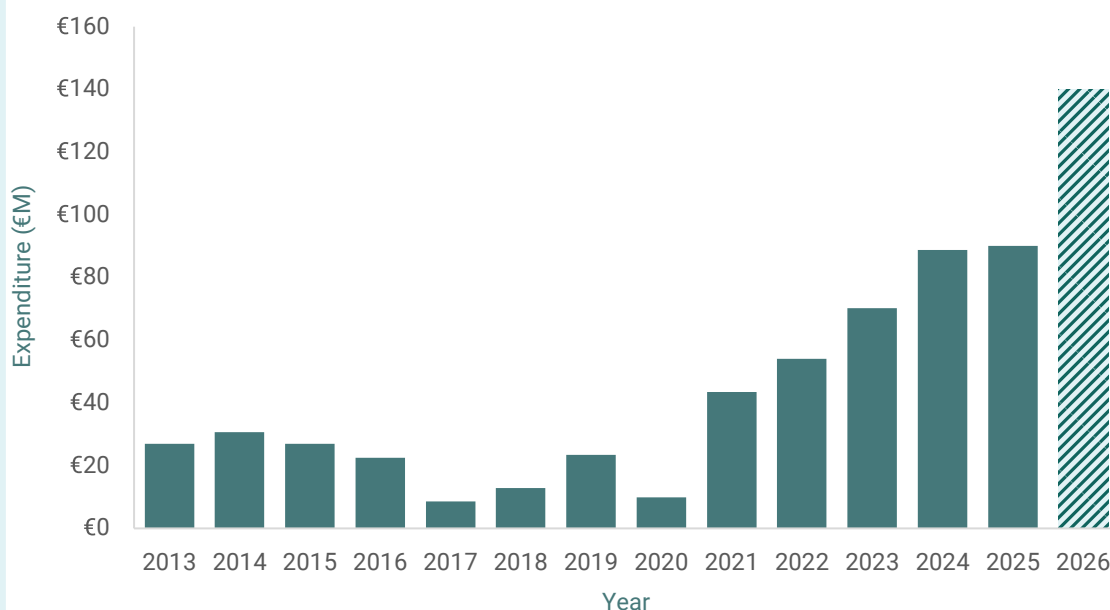
(Sources: Ireland's Provisional Greenhouse Gas Emissions 1990–2025<sup>[1]</sup> and Ireland's Greenhouse Gas Emissions Projections 2025–2055.<sup>[4]</sup>)

### 3.3. Local authority retrofit funding trends

The number of local authority homes retrofitted under the Energy Efficiency Retrofitting Programme increased by 2.5% between 2024 and 2025, from 2,607 to 2,671.<sup>[3]</sup> Funding increased by 1.3% in the same period, from €88.8 million to €90 million, with €140 million allocated to the programme for 2026.<sup>[17]</sup> Since 2021, a total of 10,370 local authority homes have been retrofitted against a target of 36,500 brought to BER B2 or cost-optimal by 2030.<sup>[17]</sup> However, the Council is disappointed that investment has increased only marginally in recent years (Figure 5), especially when factoring in the impact of increased building costs.

The Council recommends that the Government provide an increased and sustained funding allocation to enable local authorities to deliver an accelerated step change in the retrofit of social housing. This aligns with previous recommendations from the Council in its 2024 and 2025 Annual Reviews.





**Figure 5: Energy Efficiency Retrofitting Programme expenditures.**

The 2026 figure is the expenditure allocated to the programme. M, million.

(Sources: Energy Efficiency Retrofitting Programme – Expenditure & output<sup>[3]</sup> and Press release: Housing Minister announces €140 million to accelerate retrofitting of social homes.<sup>[18]</sup>)

## 4. Progress on previous Climate Change Advisory Council recommendations

### 4.1. Low-carbon heating

The Council has repeatedly emphasised the urgent need to reduce and ultimately phase out Ireland's reliance on fossil fuels and has recommended that the Government set out clear policy choices for the long-term roll-out of low-carbon heating in existing buildings, including policies on heat pumps and district heating and a clear pathway for phasing out fossil fuel boilers.<sup>[19,20]</sup>

The publication of the National Residential Retrofit Plan<sup>[21]</sup> in January 2026, including a package of new and enhanced grants for home energy upgrades, was welcome. This includes a renewable heating bonus of €4,000 for heat pump installation, which, when combined with the existing heat pump grant of €6,500 and a grant of €2,000 for upgrading radiators and pipework, brings the maximum available support to €12,500.<sup>[22]</sup> The Council also welcomes confirmation that this enhanced package of support will apply to applications already submitted and pending payment, as this will reduce the administrative burden and avoid disadvantaging households already engaged in the process.<sup>[22]</sup> Figures published in April 2026 indicate a significant increase in applications for heat pump installations in Q1 2026, up 95% year on year.<sup>[23]</sup> This is a positive sign that increased grant support is helping to incentivise uptake.



However, households typically require access to additional finance for retrofit works supplemented by these grants. Medium- to high-income households often have greater access to finance, including personal funds, personal loans and mortgages. The Home Energy Upgrade Loan Scheme, underpinned by resources from the European Investment Bank (EIB) Group, was agreed in October 2023.<sup>[24]</sup> The scheme provides low-interest finance for households through retail banks and credit unions. In April 2024, one bank was first to offer loans to the public under the scheme. In June 2024, two more financial institutions followed and another joined in early 2025. In April 2025, seven credit unions launched the scheme for customers. Only 961 loans were drawn down by the end of 2025, representing a total of €47.36 million out of an available fund of €500 million, access to which ends in 2026.<sup>[25]</sup>

The Council is disappointed by the low uptake to date and urges action to ensure greater access to this funding and increase the awareness and availability of this loan scheme. In addition, the Government should explore with the EIB the potential of extending the EIB Group loan guarantee and the Government-funded interest rate subsidy beyond the current time frame to allow for greater uptake.

The 5-yearly National Comprehensive Assessment of the Potential for Efficient Heating and Cooling in Ireland, due to be submitted to the European Commission by the end of 2025, was submitted and published by the Sustainable Energy Authority of Ireland (SEAI) in May 2026.<sup>[26]</sup> The assessment provides an important evidence base for heat decarbonisation and reinforces the need for a clear fossil fuel phase-out pathway. It finds that phasing out fossil fuels from heating as early as is feasible will be crucial to reducing cumulative emissions from the heat sector over the next 30 years, but warns that this will be significantly more expensive from a consumer perspective without additional supportive policies. The findings strongly support the Council's previous recommendations that clear policy choices for the long-term roll-out of low-carbon heat in existing buildings are urgently required.

The assessment also highlights the strategic importance of district heating and waste heat utilisation.<sup>[26]</sup> It identifies the cost-effective potential for decarbonised district heating to serve around 4.6 TWh of current heat demand, equivalent to approximately 17% of current building heat demand, and estimates that waste heat could supply around 31% of networked heat demand through district heating by 2055. This reinforces the Council's previous recommendations that large energy users, including data centres, should be required to build in heat export capability at the time of construction, with existing data centres progressively retrofitted where appropriate, and that the Government should mandate the supply of waste heat to district heating companies by industrial facilities with a total rated energy input of at least 1 MW in appropriate areas.

The Large Energy User Action Plan, published in January 2026,<sup>[14]</sup> commits to advancing and supporting measures that promote the utilisation of waste heat from data centres in nearby facilities and networks. This commitment must now be progressed swiftly and in full. The Council notes recent investments in support of district heating, and these are further considered in *Section 5.2.2*.

The Council is extremely disappointed that the Government failed to submit the draft National Building Renovation Plan (NBRP) to the European Commission by the deadline of 31 December 2025, as required under the EU Energy Performance of Buildings Directive (EPBD). The plan is urgently needed to provide certainty and a clear policy pathway for households and industry. Failure to submit the draft by the deadline resulted in the European Commission opening infringement proceedings against Ireland in March 2026<sup>[27]</sup> (see *Section 5.3.1*).

The Council also previously recommended that a clear policy and roadmap for the decarbonisation of commercial buildings be published in 2025, including specific targets for numbers of building upgrades and low-carbon technologies. The roadmap has not yet been published, with delays arising



due to ongoing work across Government on the transposition of the EPBD, including assessment of provisions that may have implications for some small and medium-sized enterprises.<sup>[28]</sup> The Council also called for accelerated implementation of the EU Solar Rooftop Standard, part of the EPBD, which mandates solar readiness in new non-residential and public buildings. While elements of the recast EPBD are being transposed, there does not appear to be a published implementation plan for the EU Solar Rooftop Standard.

The Council has also, on several occasions, called for the publication of the National Heat Policy Statement and the urgent finalisation of the Heat (Networks and Miscellaneous Provisions) Bill to support the accelerated delivery of district heating schemes and provide regulatory certainty to investors. However, the Bill has still not been enacted, and the Council is concerned that recent parliamentary question responses indicate that the timeline has repeatedly slipped from 'early 2026',<sup>[29]</sup> to 'mid 2026'<sup>[30]</sup> and then to 'later this year'.<sup>[31]</sup> The National Heat Policy Statement, which will set out the Government's overarching approach to decarbonising the heat sector, was due to be published for public consultation in Q4 2025,<sup>[32]</sup> but the latest Q4 CAP 2025 (CAP25) progress report now indicates that this will not be completed until Q4 2026.<sup>[33]</sup> These delays have been a significant barrier to investment certainty, commercial building decarbonisation, district heating delivery and the coordinated phase-out of fossil fuel heating.

## 4.2. Retrofit and energy poverty

The Council has previously called for a significant acceleration in the rate of retrofitting in Ireland and recommended that 100% of social housing be raised to at least a BER B2 standard or be connected to a district heating network by 2030. This remains a priority, both to reduce emissions from the residential sector and to ensure that lower-income households can benefit from warmer homes and more affordable heating.

The National Residential Retrofit Plan, published in 2026,<sup>[21]</sup> includes increased grants for cavity wall and attic insulation; a new grant for energy-efficient windows and doors; support for first-time buyers to install attic insulation; a grant for a 'second wall measure' for homeowners who may have previously availed of a grant for cavity or internal wall insulation; and new and enhanced grants for homeowners on qualifying welfare payments, including those on the waiting list for the Warmer Homes Scheme (WHS).

The National Residential Retrofit Plan also includes measures to promote more area-based retrofitting and support for vulnerable households. This includes access to Better Energy Homes Scheme grants for local authority homes and increased grant rates for approved housing bodies (AHBs) to support upgrades for the worst-performing homes, along with increased support for energy-poor households under the Community Energy Grant scheme. In combination with support available from obligated parties under the Energy Efficiency Obligation Scheme, this could provide funding in excess of 90% of project costs for some AHB projects.<sup>[22]</sup> Budget 2026 also provided a record allocation of €640 million to target 73,000 home energy upgrades in 2026, and in March 2026 an additional €140 million was announced to accelerate the retrofitting of social homes.<sup>[23]</sup> The Council supports funding targeted at the most vulnerable households and urges the Government to ensure this translates into sustained and accelerated delivery so that those in energy poverty can benefit sooner from warmer homes and lower heating costs.

In April 2026, SEAI confirmed that it had processed 29,000 applications for individual home energy upgrades between January and March 2026, an increase of 186% year on year. These figures indicate that the expanded package of grant support is incentivising uptake. This included over 7,000 applications for window and door upgrades, over 1,730 applications for attic insulation and over 1,000 applications for cavity wall insulation.<sup>[23]</sup> In addition, more than 1,500 homes at risk of



energy poverty were upgraded under the WHS to the end of March, an increase of 18% year on year. Increased uptake of these grants and schemes in early 2026 is encouraging.

The Council has also previously recommended establishing a network of independent energy renovation advisers to provide practical support to households and communities, particularly those in energy poverty, to navigate and engage in retrofitting processes. A simplified BER scale for residential properties was introduced on 24 May 2026, aligning Ireland's building energy performance standards with those used across the EU and making BER information clearer and more accessible.<sup>[34]</sup> The updated BER scale includes additional information on energy use and tailored home upgrade information, making it easier for homeowners to access guidance on improving energy performance. However, a recommended network of independent energy renovation advisers has not yet been established. Establishing this network remains important to ensure that households, particularly vulnerable households, can interpret this information, understand their upgrade options and access available supports.

One-stop shops (OSSs), as set out under the EPBD, are intended to simplify building renovation by providing accessible end-to-end support, improving access to finance and increasing uptake of energy efficiency measures, particularly for vulnerable households. In Ireland, the SEAI-led OSS model, delivered mainly by private providers, has helped scale residential retrofits but remains largely market-led, with combined advisory and delivery roles that may limit independent guidance and limited coverage for non-residential buildings.<sup>[35]</sup> EU guidance highlights the importance of impartial advice and shows that publicly led or municipal OSS models can build trust and address behavioural barriers more effectively.<sup>[36]</sup>

### 4.3. Planning and resilience

The Council has repeatedly recommended stronger compact growth, urban regeneration and support for urban and infill development. In December 2025, the Government confirmed the continuation of the Vacant Property Refurbishment Grant until 2030.<sup>[37]</sup> As part of this, a new enhanced support package of up to €140,000 was included to bring 'above the shop' units into residential use, and planning regulations now exempt such premises from requiring planning permission to change to residential use. As of December 2025, since the launch of the scheme over 15,670 applications have been made, over 11,800 applications have been approved and 4,340 grants totalling over €230 million have been paid out.

Budget 2026 announced a new Derelict Property Tax (DPT) to replace the Derelict Sites Levy. This will be legislated for in Finance Bill 2026 and a preliminary register of derelict properties is due to be published in 2027, with the tax coming into effect thereafter. This new tax will replace the existing Derelict Sites Levy, which is an annual levy of 7% of the relevant land's market value. As part of the announcement, the Government noted that the DPT would not be charged at a lower rate than the existing levy.<sup>[38]</sup> It is important that the DPT is set at a rate that is at least equivalent to the existing levy and is designed and enforced in a manner that provides a clear incentive to bring derelict properties back into use.

The Council has also called for wider support, guidance and standards for the use of batteries and changeover switches to increase consumer resilience during extreme weather events and has expressed strong support for the expansion of the SEAI Solar PV for the Medically Vulnerable Scheme in this regard. In the Council's 2026 Electricity sectoral review, it explicitly recommends that the Government reintroduce a grant for domestic battery storage and installation of changeover switches as part of Budget 2027, prioritising low-income households, people registered as medically vulnerable and those most exposed to power outages. Confirmation in October 2025 that the Solar PV for the Medically Vulnerable Scheme has been expanded to all homeowners who are registered

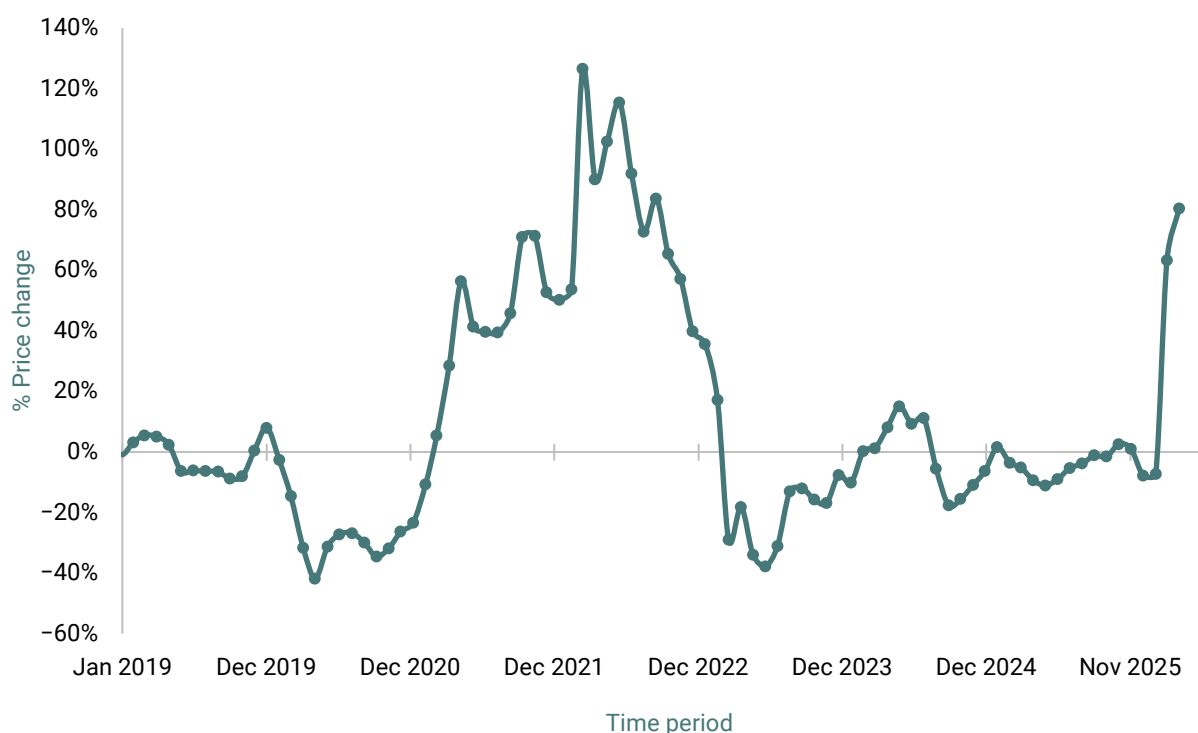


under the life support category of the Priority Services Register was welcome.<sup>[39]</sup> However, the Council now urges the Government to extend the scheme further to include battery storage and changeover capability to bolster the resilience of all registered vulnerable electricity consumers.

## 5. Analysis and discussion

### 5.1. Fossil fuel crisis and climate action

Ireland's heat sector remains highly dependent on imported fossil fuels, which exposes households and businesses to price volatility and delays progress on emissions reductions in the Built Environment sector.<sup>[26]</sup> The pace at which prices increase depends on the fuel type and market structure, with the cost of heating oil increasing rapidly in response to the 2026 Iran war and the closure of the Strait of Hormuz (Figure 6). Natural gas and electricity prices have risen more slowly, but this was also in direct response to the fossil fuel crisis and prices are expected to rise further as increases in wholesale electricity prices are eventually passed on to households.<sup>[40]</sup>

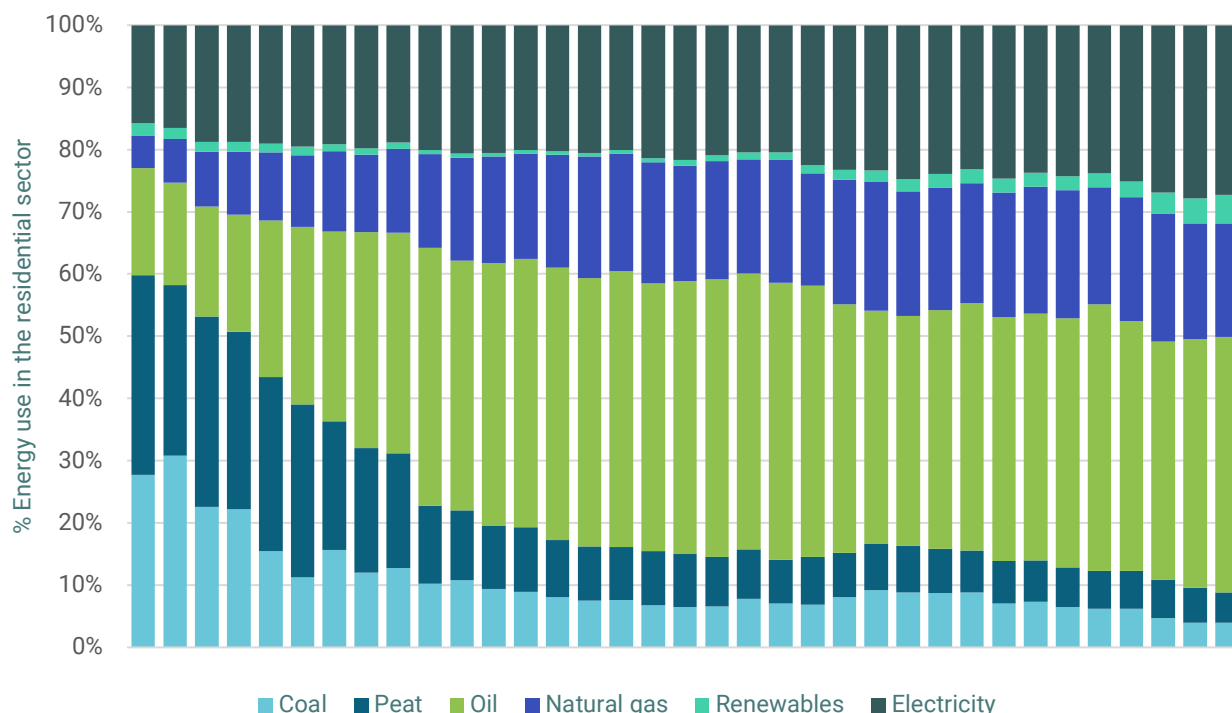


**Figure 6: Percentage change over 12 months for the home heating oil Consumer Price Index, January 2019 to March 2026.**

The baseline 0% mark denotes price stability relative to the same month of the preceding year.  
(Source: Data adapted from CPM24 – Consumer Price Index.<sup>[41]</sup>)



Census 2022 data showed that 39% of households relied on oil and 33% on natural gas for their main-space heating.<sup>[42]</sup> There has been a very significant reduction in the use of coal and peat within the residential sector since 1990, largely due to an increase in the use of oil and natural gas (Figure 7). The limited progress made to date has arisen from the effective phase-out of fossil fuels in new-build homes. However, progress in retrofitting renewable heating systems in existing homes remains frustratingly slow. As a result, Ireland continues to be heavily reliant on oil and natural gas in home heating.



**Figure 7: Percentage of energy used within the residential sector by fuel type.**

(Source: SEAI National energy balance.<sup>[43]</sup>)

Analysis from the Economic and Social Research Institute (ESRI) indicates that residential gas demand is relatively inelastic in the short term, meaning household demand is insensitive to price increases.<sup>[44]</sup> The analysis also indicates that larger homes (with more than three bedrooms) demonstrate greater capacity to lower demand than smaller homes.

Recent ESRI research suggests that the electricity credits implemented during 2022–2025 following Russia's invasion of Ukraine were both costly and potentially regressive, with a significant share of benefits accruing to higher-income households.<sup>[45]</sup> The study also found that vulnerable households would require additional income of €430 per year to be lifted out of risk of energy poverty, approximately €370 million nationally. This is substantially lower than the €550–€575 million spent on universal electricity credits, demonstrating that targeted supports may deliver more effective outcomes at significantly lower cost to the Exchequer.



The European Commission's AccelerateEU framework reinforces the need for supports that are timely, targeted and temporary, particularly in response to acute energy price shocks.<sup>[46]</sup> While such measures, including energy credits and income support, may be necessary to protect vulnerable households, especially during the winter months, the Commission emphasises that they are not substitutes for longer-term solutions for decarbonising home heating. The measures must be coupled with accelerated structural support and action to reduce dependence on fossil fuels and thus protect households from future fossil fuel shocks.

A public consultation on a revised energy poverty action plan was held in 2024;<sup>[47]</sup> however, the final plan has not yet been published. The Council urges the Government to publish the plan as soon as possible and to expedite those actions within the plan that can be effective in addressing the immediate adverse impacts of the fossil fuel crisis. The Council notes that the National Energy Affordability Taskforce (NEAT), established in 2025, emphasises the need to move towards more targeted and structurally focused interventions.<sup>[48]</sup> The Council acknowledges that energy poverty is now being addressed as part of the NEAT workplan. However, the Council is concerned that the move to incorporate action on energy poverty into the energy affordability framework may weaken the focus on the specific needs of households experiencing energy poverty. A wider affordability strategy is valuable, but it should complement rather than replace a dedicated and targeted energy poverty action plan.

Access to renewable energy is not evenly distributed across the population, which has clear implications for the Just Transition and is a barrier to enabling the highest level of public engagement in climate action. Research by University College Dublin and Pobal published in 2025 shows that people living in the most disadvantaged areas are almost five times less likely to use renewable energy in their homes than those in the most affluent communities, with the gap being particularly pronounced in urban areas.<sup>[49]</sup> Challenges in accessing renewable energy are particularly acute within the rental sector.

The Central Statistics Office's Survey on Income and Living Conditions 2025 data show that those living in rented accommodation experience higher levels of financial strain and deprivation, with 32% of renters experiencing enforced deprivation.<sup>[50]</sup> Consistent with this, 13% of renters reported going without heating at some point in 2024, more than double the rate for owner-occupied housing.<sup>[49]</sup> Landlords are not motivated to retrofit their properties or install renewable energy due to the split incentive, whereby the landlord faces the investment cost while tenants receive the benefit in terms of energy efficiency.<sup>[51]</sup> Addressing this inequality requires targeted action to expand access to renewable energy technologies for renters, those in social housing and those most at risk of energy poverty.

In many European countries, including Germany, Italy, France, Poland and the Netherlands, balcony solar is not only available but, in some countries, is grant-aided. Plug-in solar typically consists of one or more panels that can be mounted onto the sides of a balcony or in a garden and used directly through a mains socket like any other device without an installation cost, thereby reducing the amount of electricity taken from the grid and cutting energy bills. For example, millions of plug-in solar panels like these were in use in Germany in 2025 and it is estimated that these panels could produce around 200–500 kWh per year, about 10% of a typical household's energy, depending on how the system was positioned.<sup>[52]</sup>

The UK Government has recently announced the roll-out of plug-in solar panels, to be available in shops within months and save people money on their bills, with the Government vowing to go further and faster on clean energy in response to conflict in the Middle East.<sup>[53]</sup> As noted in the Council's 2026 Electricity sectoral review, a similar initiative should be implemented in Ireland to save many households significant amounts on their energy bills and help reduce reliance on volatile





global fossil fuel markets. Plug-in solar is currently not permitted in Ireland for safety and regulatory reasons, but regulations must be amended to permit plug-in solar panels connected directly to household circuits without an electrician, provided the panels meet ESB Networks safety standards. The Council recommends advancing plug-in solar, supported by a clear national framework and implementation plan to address energy affordability and enable apartment dwellers and renters to participate in the energy transition.

The Council is concerned about the decision to defer the planned increase of the carbon tax on home heating fuels until Budget 2027. As stated in the Council's Budget 2027 letter,<sup>[54]</sup> the Council reaffirms its consistent support for maintaining the planned trajectory for the carbon tax, the gradual increase to €100 per tonne of carbon dioxide emitted by 2030 and the use of ring-fenced revenue from the carbon tax for the continuation and enhancement of retrofit supports, welfare transfers to protect the most vulnerable and investment in sustainable agriculture. Deferral of the carbon tax on home heating fuels reduces the revenue available for targeted climate action, partially removes the incentive to reduce fossil fuel use or invest in low-carbon heating and creates the perception that economic wellbeing and climate action are in conflict.

Therefore, the Council recommends maintaining the planned trajectory and ring-fencing of the carbon tax to support the most vulnerable to transition away from fossil fuels in the built environment. Any additional supports introduced during the fossil fuel crisis should be targeted and temporary, and delivered through existing measures such as the Living Alone Increase, the One-Parent Family Payment and the Rental Tax Credit.

## 5.2. Renewable heat

Heating represents over one-third of Ireland's energy demand, with around 90% of current heat demand being met by fossil fuels,<sup>[26]</sup> so there is an urgent need to replace existing fossil fuel heating systems with low-carbon alternatives, including heat pumps and district heating systems. The CAP includes a target of 2.7 TWh from district heating along with 400,000 heat pumps installed in existing homes by 2030. The Council is disappointed that Ireland is not on track to meet its targets for renewable heat (Figure 1), with delivery of both district heating and heat pumps remaining substantially below the levels required.

### 5.2.1. National heat strategy

The Council has previously highlighted the importance of spatial planning to ensure that district heating and heat pumps are deployed in the most suitable geographical areas, while making use of excess heat where available. As previously recommended by the Council, zoning for heating and cooling at the local authority level and comprehensive characterisation of heat sources should be informed by appropriate spatial mapping.<sup>[19]</sup> The SEAI National Heat Study published in 2022<sup>[55]</sup> sets out the significant potential for heat decarbonisation through deployment of heat pumps and district heating. However, progress to date has been insufficient (see Section 3). The Council recommends developing and implementing a national heat strategy based on spatial planning and system diversity and resilience for a successful delivery of the heat transition.

SEAI's most recent 5-yearly National Comprehensive Assessment of the Potential for Efficient Heating and Cooling<sup>[26]</sup> indicates that existing policies will not deliver a zero-carbon heat system and will leave Ireland heavily reliant on fossil fuels well into the mid-century, exposing consumers to price volatility and supply risk. It identifies the development and implementation of a national heat strategy based on spatial planning as a key policy priority, noting that 'a plan-led approach would define where lowest-cost, highest-impact solutions match local conditions while placing consumers, energy security and value for money at its core'. The Council strongly supports this as a critical





enabling policy priority, reinforcing earlier Council recommendations to move towards a strategic, coordinated and place-based approach to heat decarbonisation.

The national heat strategy should establish a clear spatial hierarchy for low-carbon heat deployment, with prioritisation of district heating in areas of high-density demand and accessible renewable and waste heat supply. In other areas, electrification through the deployment of heat pumps should be accelerated where technically and economically feasible, with biomass and biomethane strategically deployed in areas with local availability and where district heating and electrification are not available.

It is critical that the strategy is developed with and defines the respective roles of the Government, local authorities, public bodies, industry and communities, including how local heating and cooling plans in areas with a total population higher than 45,000, as required under Article 25.6 of the Energy Efficiency Directive, will be supported and aligned with national emissions targets. The Council recommends that delivery of a national heat strategy at the local level be enabled by a coordinated national heat decarbonisation framework that plans, funds and sequences the development of shared enabling infrastructure, including electricity networks, heat networks, thermal storage and supply chains.

### 5.2.2. District heating

Progress on district heating remains very limited and it is the Council's view that it is essential to accelerate progress. Ireland still only has one operational district heating network, the Tallaght District Heating Scheme in South Dublin.<sup>[56]</sup> The scheme became operational in 2023 and is estimated to generate just 0.27 TWh over its 30-year lifetime, a fraction of the CAP target of 2.7 TWh by 2030. The Dublin District Heating Scheme was under construction in 2025, while several further large-scale public and private schemes are in post-feasibility development.<sup>[26]</sup>

In July 2025, €5 million was allocated from the Climate Action Fund to support pre-construction development costs for efficient district heating projects, and the fund was launched in November 2025.<sup>[57]</sup> It is intended to increase the volume of efficient district heating schemes progressing through early stages of project development and to provide insights and learning for future policy on, investment in and deployment of district heating networks. Support is available for up to 50% of eligible costs, to a maximum level of €1 million.

Budget 2026 also included a €500 million allocation for Department of Climate, Energy and the Environment (DCEE) projects under the National Development Plan (NDP) and the Infrastructure, Climate and Nature Fund (ICNF), focused on developing new markets to accelerate energy decarbonisation, particularly biomethane and district heating.<sup>[58]</sup> Within the DCEE NDP sectoral plan, district heating received an indicative ICNF allocation of €50–€100 million over the period 2026–2030.<sup>[59]</sup>

Sustained and adequate funding will be required if Ireland is to realise the potential of low-carbon district heating generation. The SEAI heating and cooling assessment estimates that district heating could supply 17% of current building heat demand, with wider roll-out scenarios indicating a potential contribution of between 10% and 30%. It also highlights the strategic importance of waste heat, which could supply almost one-third of networked heat demand by 2055 (see *Section 4.1*). The Tallaght District Heating Scheme demonstrates this potential in practice, with waste heat from a nearby data centre supplying heat to civic buildings and the Technological University Dublin Tallaght Campus.<sup>[56]</sup>

Anchor loads are buildings with large and consistent heat demands that can improve the economic viability of district heating networks, for example schools, hospitals or other public or commercial



buildings.<sup>[60]</sup> The SEAI heating and cooling assessment defines an anchor load as an individually metered connection with an annual heat demand of over 200 MWh. Securing connection to these buildings in the first phase of network development decreases the risks involved, ensuring a viable heat demand is connected to the system. Public sector buildings are particularly well placed to act as anchor loads while also achieving short-term reductions in heating emissions.

A feasibility study for the proposed Naas District Heating Scheme estimated that connection to the network would reduce carbon emissions by approximately 70% compared with buildings using individual gas boilers and by 36% compared with those using air-source heat pumps.<sup>[61]</sup> Modelling published in October 2025 by the Energy Policy and Modelling Group at University College Cork similarly found that 2.5 TWh of district heating capacity can deliver annual decarbonisation of around 0.6 Mt CO<sub>2</sub> eq in most cases. However, it also concluded that, despite recent government funding allocations to cover pre-construction costs for proposed projects, large-scale residential roll-out remains well short of what is needed to achieve 2030 targets.<sup>[61]</sup> Public sector anchor loads should therefore be identified and secured at an early stage to provide a foundation for district heating networks' expansion to surrounding residential and smaller commercial customers.

The Heat Bill and the Heat Policy Statement are urgently required to support the accelerated delivery of district heating schemes and the decarbonisation of the commercial and public services sector but have been consistently delayed (see *Section 4.1*). The proposed regulatory model for district heating is intended to ensure consumer protection, support the delivery of a vibrant district heating industry and mandate all public sector buildings and facilities to connect to district heating where available and technically and economically feasible.<sup>[62]</sup> Further delay risks constraining project development, weakening investor confidence and failing to deliver district heating at the scale required. The Council acknowledges the recent Cabinet approval for revisions to the General Scheme of the Heat Bill, which include strengthened consumer protections.<sup>[63]</sup> However, the Council has recommended that the Heat Bill be urgently finalised and enacted to accelerate the deployment of district heating in Ireland.

The Council welcomes HeatGrid Ireland's recent announcement of a €107.3 million investment programme, which is expected to deliver 100 GWh of low-carbon heat annually. Of this total, €59.28 million in investment and 41.8 GWh of heat supply will be mobilised for the duration of the EIB-funded European Local Energy Assistance project (September 2025 to August 2028).<sup>[64]</sup>

### 5.2.3. Heat pumps

There are currently 180,176 heat pumps installed in BER-assessed residential properties.<sup>[8]</sup> This includes those in both new-build properties where heat pumps were installed from the outset as well as those in existing homes that have transitioned from fossil fuel boilers to heat pumps as a result of retrofitting. Heat pump uptake has increased substantially across BER-assessed housing, increasing from 49% for dwellings built between 2015 and 2019 to 85% for those built in the period 2020–2025.<sup>[8]</sup> This is consistent with the introduction of nearly zero energy building (NZEB) regulations in 2019. Progress in heat pump installation rates has been seen across Ireland, particularly in areas where new-build developments are concentrated.

NZEB regulations do not require the installation of a heat pump, as the target of 20% of energy coming from renewable sources can be met through installation of solar PV or solar thermal.<sup>[65]</sup> However, these properties typically have BER A ratings and are ideal for heat pump installation. From 2030, all new buildings will be zero-emission buildings, which will effectively ban fossil fuels from being used on-site, meaning space and water heating must be done through electrical or district heating means.<sup>[66]</sup>



The Government has recently announced a package of new and enhanced grants to support heat pump installation (see *Section 4.1*). However, the SEAI heating and cooling assessment finds that heat pumps are between €0.06 and €0.22 more expensive per kilowatt-hour than fossil fuel boilers, even after existing grants, and suggests that reducing the gap between relative prices of gas and electricity could make heat pumps more attractive to a wider range of consumers.<sup>[26]</sup> The assessment indicates that, under the baseline scenario (aligned with the EPA's with existing measures (WEM) scenario), the gap between the prices of gas and electricity is projected to increase over the period 2024–2055, with the retail price of electricity forecast to be approximately three and a half times higher than the retail price of gas per kilowatt-hour by 2055. This is due to additional costs of network development for the electricity grid and limited increases in carbon prices for gas.

With only 18,580 heat pumps installed in existing buildings by 2025 against the CAP target of 45,000, Ireland has fallen substantially short of its interim target. Capital grants alone are therefore unlikely to accelerate heat pump uptake at the scale required to achieve the 2030 target of 400,000 heat pumps installed in existing dwellings. Measures will also be required to improve the relative operating cost of heat pumps to ensure that switching from fossil fuel heating is financially attractive over the lifetime of the system, as noted in the Council's 2025 Built Environment, Industry and Waste sectoral review.<sup>[20]</sup>

### 5.2.4. Geothermal energy

Geothermal energy has potential as an indigenous low-carbon heat source to support the decarbonisation of Ireland's heat demand. Ireland has the potential to develop low- to medium-temperature geothermal energy resources suitable for district heating in municipal, residential and industrial areas.<sup>[67]</sup> Geological Survey Ireland has developed geothermal energy suitability maps and datasets and is in the process of establishing a national geothermal database for future geothermal projects that highlights the potential for deep geothermal energy in southeastern, southwestern and northern regions of the island of Ireland.<sup>[68,69]</sup>

In the technical annex to SEAI's heating and cooling assessment, geothermal energy is highlighted as having the potential to make a meaningful contribution to district heating. Deep geothermal energy is estimated to supply 0.12 TWh per year (3% of networked heat demand), while shallow open-loop geothermal energy could provide a further 1.18 TWh per year (29% of networked heat demand). Similarly, geothermal energy was suggested to have a strong complementary role as a heat source in urban and institutional settings.<sup>[26]</sup>

The current policy status of geothermal energy includes the 2023 Policy Statement on Geothermal Energy for a Circular Economy and the SEAI Geothermal Energy Manual of Consenting Procedures.<sup>[70,71]</sup> Geothermal heating has been highlighted in several 2024–2029 local authority climate action plans (LACAPs), for example in County Kilkenny,<sup>[72]</sup> County Limerick<sup>[73]</sup> and County Waterford.<sup>[74]</sup> However, most LACAP references are still at the policy, feasibility or investigation stage.

The deployment of geothermal energy faces challenges due to limited national geological information and a lack of legislation for installation.<sup>[69,70]</sup> However, Geological Survey Ireland continues to advance the sector through targeted research, data development and project support. In 2026, €14.35 million was allocated to Geological Survey Ireland for geoscience projects and activities, including geothermal energy development.<sup>[75]</sup> Furthermore, a geothermal energy demonstration project called Gemini will develop a deep geothermal system (> 500 m) at the Technological University Dublin campus at Grangegorman and a shallow system (< 500 m) at the Sligo Regional Sports Centre.<sup>[76]</sup> The Grangegorman demonstration site will invest in a 2-km-deep



borehole to demonstrate feasibility in Ireland for a larger-scale heat network. This project aims to use geothermal energy as a heat source within a district heating system to supply public sector buildings and potentially housing developments.

In Europe, geothermal energy is already established as a heat source in district heating, particularly in France, Denmark, Germany and the Netherlands.<sup>[77]</sup> Published in 2025, the European Geothermal Energy Council (EGEC) reported 412 operational geothermal district heating and cooling systems in Europe, including 308 in the EU.<sup>[78]</sup> In January 2024, the European Parliament called for the development of a European geothermal strategy; the EGEC has also called for a European geothermal strategy plan to improve energy security, competitiveness and decarbonisation.<sup>[79]</sup> Analysis published in February 2026 estimates that next-generation geothermal technologies could deliver around 301 TWh annually in the EU, equivalent to around 42% of coal- and gas-fired electricity generation in 2025.<sup>[79]</sup> The effectiveness of a European geothermal framework will hinge on progress in reducing investment risk, removing regulatory and geological bottlenecks, increasing social acceptance, and strengthening subsurface data, energy planning and EU energy and climate modelling.

The Council, in support of SEAI's heating and cooling assessment, recommends that both the Heat Bill and the Geothermal Energy Bill be urgently finalised and enacted to establish a clear legislative framework for the establishment of district heating networks and the deployment of geothermal energy in Ireland.

### 5.3. Key 2026 deadlines in the EU Energy Performance of Buildings Directive

The transposition deadline for the revised EU EPBD was 29 May 2026. The Council is disappointed that Ireland did not meet this deadline. However, some elements of the EPBD have already been progressed and implemented, including the rescaling of the BER scale.<sup>[34]</sup> There are two key elements of the EPBD that are due for delivery and implementation in 2026. They are the NBRP and building renovation passports (BRPs), which are addressed in detail in the following subsections.

#### 5.3.1. National Building Renovation Plan

Under Article 3 of the EPBD, Member States are required to prepare and submit an NBRP. A draft NBRP was due to be submitted to the European Commission by 31 December 2025. As of July 2026, 16 Member States had submitted their draft plans.<sup>[80]</sup> Ireland, however, has missed this deadline and has received an infringement letter from the European Commission.<sup>[81]</sup>

The NBRP is intended to act as a comprehensive roadmap for achieving a highly energy-efficient and decarbonised building stock by 2050 and covers residential, public and commercial buildings. A key component required in the plan is the transformation of heating systems within existing buildings. Member States are required to outline a plan and measures to progressively reduce their reliance on fossil fuel boilers, with the ultimate objective of completely phasing out fossil fuel boilers by 2040 and replacing them with alternative heating solutions such as heat pumps, solar thermal systems, district heating and the direct use of waste heat. Delays in the publication of a plan are missed opportunities to accelerate a Just Transition in the sector, and the Council calls on the Government to complete and publish the plan without further delay.

The Council has repeatedly called for a clear timeline for the phase-out of fossil fuel boilers in existing buildings.<sup>[19,20]</sup> CAP25<sup>[82]</sup> states that a roadmap to phase out fossil fuel boilers was to be published in 2025, aligned with the NBRP; the Council expresses concern that this has not yet been made available. The 2026 SEAI heating and cooling assessment<sup>[26]</sup> highlights the importance of



implementing a formal and timely fossil fuel phase-out strategy. It notes that delaying action significantly increases both costs and emissions, heightens the risk of technological lock-in and reduces the time frame available for the adoption of cost-effective alternatives.

The EPBD introduces a clear legal basis for national bans on fossil fuel boilers and enables Member States to introduce national policies that prohibit fossil fuel heating technologies.<sup>[83]</sup> Progress across Europe demonstrates a shift towards fossil fuel boiler phase-out in existing buildings.<sup>[84]</sup> Several regions and countries have already introduced bans or firm timelines for phase-out. In Belgium, Flanders has banned oil boilers in all buildings since 2022, Brussels has had a similar ban since 2025 and Wallonia is set to ban oil boilers in existing buildings from 2026. Denmark has prohibited fossil fuel boilers in areas served by district heating networks. Finland plans to phase out oil boilers in all buildings by 2030. France has banned oil boilers in all buildings since 2022. Greece introduced a ban on the sale and installation of oil boilers in 2025 and Norway has enforced a ban on oil boilers in all buildings since 2020. The Council recommends that the Government adopt similarly clear policy positions and engages all stakeholders proactively.

The ESRI has published a review of residential heat decarbonisation in which it highlights the implementation challenges faced to date in switching from fossil fuel boilers to renewable heating systems.<sup>[85]</sup> The study identified potential short-term benefits for switching from carbon-intensive fuels to natural gas, especially with respect to the challenge of achieving 2030 emissions reduction targets. However, swapping one fossil fuel for another would lead to an extended lock-in to fossil fuel use for home heating, with an expected lifetime of a gas boiler typically being 15–20 years. Therefore, switching between fossil fuels (even where renewable biomethane is blended with natural gas) would divert attention from the long-term objective of a complete phase-out of fossil fuel use. These measures may reduce emissions in the short term, but they do not resolve the underlying issue of dependency and could potentially extend the lifetime of fossil fuel systems.

There is a clear need for the Government to provide consistent and unambiguous policy signals that ensure households understand that fossil fuel heating is being phased out rather than that existing heating is being replaced with alternative fossil fuel options.

The minimum energy performance standards (MEPSs) for non-residential buildings (including both public and commercial buildings) are mandated under Article 9 of the recast EPBD and are a central component of the delayed draft NBRP. MEPSs are intended to ensure that the least efficient non-residential buildings are progressively upgraded, beginning with renovating 16% of the worst-performing buildings by 2030 and increasing to 26% by 2033. Preparatory work, including identifying the worst-performing buildings and setting thresholds and timelines, must be set out within the NBRP.

The Heat and Built Environment Taskforce is tasked with developing decarbonisation roadmaps for the Built Environment sector.<sup>[86]</sup> However, progress has been slow, with the public sector roadmap not yet published<sup>[87]</sup> and the commercial buildings roadmap having been consistently delayed since 2023. Given that the commercial and public Built Environment sector is the only sector where emissions are projected to increase in both the 2030 WEM and WAM scenarios, coordinated and decisive Government action is now deemed critical (see *Section 3.2*). The Council calls on DETE, DCEE and the Department of Housing, Local Government and Heritage (DHLGH) to urgently publish these roadmaps, including clear targets, timelines and measures to implement the MEPSs, accelerate building upgrades and the adoption of renewable technologies such as solar PV and batteries, and increase uptake of low-carbon heating such as heat pumps and district heating.

Progress in incorporating climate change adaptation into structural design codes and standards has been poor,<sup>[88]</sup> and the recast EPBD<sup>[89]</sup> does not fully integrate climate adaptation measures, as it



remains primarily focused on decarbonisation and energy efficiency. However, the recast EPBD of 2024 states that ‘deep renovation’ undertaken for energy performance purposes also has the potential to address wider considerations, including indoor environmental quality, the living conditions of vulnerable households, climate resilience and resilience to disaster risks.

The Council recommends that the forthcoming NBRP<sup>[80]</sup> incorporate the concept of deep renovation and recognise the significant opportunity this presents to address aspects of climate resilience including greater flood protection, improved water efficiency, enhanced indoor thermal regulation and building improvements to reduce vulnerability to extreme wind events.

### 5.3.2. Building renovation passports

Under Article 12 of the EPBD,<sup>[90]</sup> BRPs were introduced as a tool to help building owners plan staged deep renovations that are necessary to improve energy performance over time. Ireland and other EU Member States were required to establish national BRP schemes by 29 May 2026 as part of their transposition of the recast EPBD into national law, but this deadline has been missed by Ireland. Renovation passports are required to cover the entire national building stock including both residential and non-residential buildings.<sup>[91]</sup> The Council notes that it is imperative that this be enacted as quickly as possible.

The Irish Green Building Council's (IGBC's) 2026 policy scorecard notes that Ireland's national decarbonisation policy has matured but implementation remains piecemeal, with funding and retrofit supports still difficult to navigate for many building owners.<sup>[92]</sup> A BRP can respond to this by giving owners a clear plan, providing a record of works for future reference or warranty issues and reducing the transactional cost of retrofit where property changes hands.<sup>[93]</sup>

An IGBC feasibility study highlighted that the implementation of BRPs was useful to increase homeowners' awareness and to improve the skills of occupants.<sup>[93]</sup> In a November 2025 parliamentary question,<sup>[94]</sup> the Minister for Climate, Energy and the Environment noted that BRPs are also planned as part of SEAI's Business Energy Upgrade Scheme, which will support commercial buildings.

## 5.4. Retrofitting programmes

Ireland's retrofitting programmes have delivered measurable progress in recent years, supported by increased funding and policy focus, but significant challenges remain in achieving the scale and pace required to meet 2030 targets. Recent data from across SEAI-supported schemes and local authority delivery highlight both positive momentum and persistent structural constraints, which include a range of financial, operational and behavioural constraints that impact progress.

### 5.4.1. Local authority retrofit programme

Between 2021 and 2025, 10,370 local authority homes were retrofitted to BER B2 or cost-optimal under the Energy Efficiency Retrofit Programme (EERP) against a target of 36,500 by 2030.<sup>[3]</sup> The Council has consistently recommended that delivery of local authority retrofitting targets be accelerated through sustained funding allocations and clear assessment of capacity to increase delivery rates. The Council remains concerned that support levels are not yet at the level required or on the sustained basis necessary to achieve Ireland's ambitions and ensure a Just Transition.

In March 2026, funding of €140 million was allocated for local authorities under the EERP to support the retrofit of around 3,500 social homes.<sup>[18]</sup> This represents an increase of €50 million on the





amount allocated and drawn down by local authorities in 2025. The Council welcomes this uplift in funding but notes that it remains insufficient.

Over 5,000 units will need to be retrofitted each year to meet the 2030 target. This would require a significant ramp up compared with current delivery rates, with only 2,671 units retrofitted to B2 or cost-optimal in 2025. The Council therefore calls for a further substantial increase in funding under Budget 2027 for this programme.

Under the EERP, solar PV and domestic battery storage are not currently included as standard funded measures and are therefore not widely installed across the social housing stock. The programme focuses on fabric and system upgrades to bring properties up to B2 or cost-optimal levels. These upgrades can significantly reduce heat demand and improve energy efficiency, but they do not directly address the rising cost of electricity, particularly as homes electrify. Solar PV combined with domestic battery storage that enable load shifting could provide an important additional layer of financial protection for low-income households in social housing, which would help ensure a Just Transition and mitigate the risk of energy poverty.

### 5.4.2. Sustainable Energy Authority of Ireland retrofit programmes

Since 2020, approximately 31,000 homes have been upgraded under SEAI's WHS.<sup>[95]</sup> The WHS targets low-income households at risk of energy poverty with the aim of enhancing energy efficiency and creating healthier, warmer and more comfortable homes. The scheme has expanded significantly in recent years, with delivery increasing from over 4,200 homes in 2022 to over 8,100 homes in 2025.<sup>[96]</sup>

In 2025, €246 million was allocated to the WHS, which delivered over 8,000 home retrofits, and approximately 10,000 applications were received. However, €34 million of this allocation went unspent.<sup>[95]</sup> The average cost of retrofitting under the scheme is approximately €29,500–€30,000 per home. However, there is significant variation depending on the depth of the retrofit, ranging from approximately €8,000 for shallow retrofits to €50,000 for deep retrofit measures including installation of a heat pump.<sup>[95]</sup>

Budget 2026 included increased funding of €340 million for the WHS. SEAI has stated that this will support 11,500 home upgrades.<sup>[97]</sup> In addition, SEAI is establishing a new framework agreement to expand contractor capacity,<sup>[95]</sup> which is a positive development.

Waiting times for the WHS remain a critical issue. As of January 2026, 20,000 homeowners who had successfully applied for an upgrade under the WHS were awaiting the implementation of their upgrade projects.<sup>[21]</sup> In 2025, the average time from application to completion of works was approximately 22 months.<sup>[97]</sup> This is a significant delay for households in or at risk of energy poverty. The breakdown of waiting times indicates systemic bottlenecks across the delivery chain, including a wait of 6.5 months from application to pre-works BER, 13.5 months to survey completion and 14.8 months to contractor allocation.<sup>[96]</sup> Current estimates suggest that, without further intervention, waiting times for new applicants may remain in the range of 24–26 months.<sup>[98]</sup>

The Council welcomes measures such as allowing applicants to proceed immediately with attic and cavity wall insulation without losing their place in the WHS queue. However, end-to-end waiting times remain unacceptably long and require urgent reduction. The Council anticipates the SEAI waiting list action plan, which must deliver clear and measurable improvements in the near term.<sup>[96]</sup>

The WHS has been highly effective in improving energy efficiency. However, there is a risk that emissions reductions may not be fully realised post retrofit due to behavioural responses. Coyne and Denny (2021) found that actual energy use does not vary substantially across BERs, with more efficient homes often consuming more energy than predicted and less efficient homes



consuming less.<sup>[99]</sup> Lynch *et al.* (2026) suggest that comfort may be more flexible than energy expenditure, noting that households may maintain energy use within an affordable or acceptable range and adjust comfort levels accordingly rather than reducing consumption in line with efficiency gains.<sup>[85]</sup> This risk needs to be addressed through stronger integration of decarbonisation measures and targeted engagement on homeowner heating behaviours.

Uptake of heat pumps under the WHS should be prioritised and actively scaled. While solar PV and battery storage are not currently included as standard measures under the WHS, SEAI is piloting solar PV alongside WHS retrofits, with approximately 70 homes included as of March 2026. The Council recommends that solar PV installations be funded and offered as a measure under the WHS.

The scale and pace of residential retrofit delivery under the WHS and other SEAI schemes such as OSSs and Better Energy Homes need to be accelerated to achieve targets. While these SEAI schemes have supported a significant increase in retrofit activity, evidence indicates that behavioural and administrative frictions continue to limit participation, progression and completion rates.

Research shows that, beyond financial constraints, behavioural and informational barriers play a significant role in shaping household decision-making, particularly among low-income groups.<sup>[100]</sup> Administrative frictions, including complex application processes, multiple stages of approval, lengthy or uncertain timelines and documentation requirements, are also known to reduce uptake and contribute to drop-out rates in grant schemes.<sup>[101]</sup> Collectively, these frictions can deter households and businesses from engaging with schemes or progressing beyond initial interest. As a result, a proportion of otherwise willing participants either do not enter the system or discontinue the process before projects are realised. This limits the overall scale and pace of retrofit delivery and highlights the need for a more streamlined, customer-centric approach to scheme design and administration.

The Council recommends a comprehensive behavioural review to enable a systematic assessment of these barriers across the full customer journey, including the awareness, application, decision-making and delivery stages. Such a review should consider both households that engage with schemes and those that do not, in order to identify structural gaps in reach and inclusivity. In particular, the Council emphasises the importance of understanding the challenges faced by underrepresented groups, including low-income households and those in harder-to-retrofit dwellings. Improving the clarity, accessibility and overall user experience of schemes will be critical to increasing uptake and conversion rates. Addressing these issues in a targeted and evidence-based manner will support higher participation and more efficient delivery, thereby contributing to the acceleration of retrofit activity at the scale required.

### 5.4.3. Approved housing bodies

AHBs play a significant role in the provision of social and affordable housing and are, therefore, important actors in the decarbonisation of the residential sector. However, as highlighted in the Housing Alliance's 2026 decarbonisation guide report for AHBs, financial constraints are a key barrier to the scale and pace of retrofit activity across the AHB sector. In January 2026, the Government announced increased grant supports under the SEAI National Home Energy Upgrade Scheme and Community Energy Grant (see Section 4.2).<sup>[102]</sup> This increase in support for retrofitting available to AHBs is a welcome development. However, the Council also recommends that DCEE and DHLGH accelerate the deployment of solar PV to address energy affordability with a focus on renters in AHB-owned properties and social housing.

While AHBs can avail of the SEAI grant for solar PV, the grant is capped at €1,800, which may limit uptake at scale. As noted in the Council's 2026 Electricity sectoral review, the Government should





reintroduce a grant for domestic battery storage and installation of changeover switches as part of Budget 2027, prioritising low-income households, people registered as medically vulnerable and those most exposed to power outages; this should also be available for AHBs. Given their structured governance, aggregated housing stock and available funding, AHBs are well positioned to act as a testbed for the wider deployment of solar PV and domestic batteries in multi-unit and social housing settings. In particular, AHBs could play a role in evaluating the impact of solar PV on energy affordability by piloting installations and monitoring outcomes such as reductions in electricity bills, interactions with electrified heating systems and overall household energy costs.

## 5.5. Climate resilience

### 5.5.1. Protecting properties from coastal flooding and erosion

In Ireland, approximately 40% of the population lives within 5 km of the coast,<sup>[103]</sup> and more than 104,000 properties are located in areas vulnerable to extreme coastal flooding.<sup>[104]</sup> A Climate Action Regional Offices survey of eight coastal local authorities estimates that 2,279 properties and around 570 km of road are currently at risk of coastal erosion and coastal change. The number of properties at risk in these local authorities is projected to rise to 4,446 by 2050, a figure that could rise further if all local authorities covering 19 coastal counties reported their data.<sup>[105]</sup> The National Climate Change Risk Assessment<sup>[106]</sup> classifies the risk of damage to and loss of buildings due to sea level rise, coastal erosion and coastal flooding as critical by mid-century, with the potential to reach catastrophic levels by the end of the century.

The report of the Inter-Departmental Group on National Coastal Change Management Strategy was published in 2023 and provides the basis for a long-term strategy for integrated coastal change management in Ireland.<sup>[107]</sup> An inter-departmental steering group on coastal change was subsequently established to progress the strategy recommendations, including the development of a national set of coastal change management plans (CCMPs) to provide the necessary framework to guide short-, medium- and long-term coastal management and investment decisions.<sup>[108]</sup> As outlined in the strategy, the recommended development of CCMPs, which may transcend local authority areas, will require an appropriate policy framework to underpin and guide potential management options. The Programme for Government 2025<sup>[109]</sup> includes a commitment to advance the strategy and initiate three pathfinder schemes in selected coastal areas. However, to date, no CCMPs have been published and the proposed pathfinder schemes have not yet commenced. The Council is very concerned that there is no timeline to conclude this body of work given its critical role in effective risk management for vulnerable coastal communities.

In the UK, shoreline management plans have been in place since at least 2012 to help deliver the ambitions of the National Flood and Coastal Erosion Risk Management Strategy for England.<sup>[110]</sup> The UK has also been using pathfinder programmes to test real-world approaches to managing unavoidable coastal change, including relocation, rollback, voluntary buyouts, community engagement and new planning tools.<sup>[111,112]</sup> Given Ireland's geographical similarities to the UK, the Council urges that lessons learnt from these be used to inform evolving national strategies.

Coastal relocation, often referred to as managed retreat, is increasingly recognised internationally as a necessary adaptation response where risks cannot be sustainably mitigated through protection measures alone.<sup>[113]</sup> Recent research commissioned by the Council, published in *Managing Coastal Risks in Ireland: Towards strategies that integrate planned coastal relocations*, highlights that Ireland is not adequately prepared for future coastal risks and that proactive long-term planning is more cost-effective and socially equitable than emergency responses after disasters occur.<sup>[105]</sup> The research recommends the development of national CCMPs with adaptation pathways; the



establishment of clear climate indicators and trigger points to guide coastal adaptation decisions; the creation of dedicated funding mechanisms for coastal and inland planned relocations; improved national coastal risk mapping and data collection; the piloting of 'pathfinder' relocation projects to build evidence and public trust; and the embedding of meaningful community consultation throughout the decision-making process. It is critical that the Government start proactively engaging with coastal communities on an ongoing basis to advance the planning and implementation of coastal management interventions to effectively reduce coastal risks.

The Council recommends that the Government expedite the development of CCMPs, supported by the three pathfinder schemes outlined in the Programme for Government 2025, prioritising the most vulnerable coastal areas. The CCMPs should determine the most appropriate adaptation options for identified at-risk coastal areas, and a strategic approach to planned relocation should be taken for properties vulnerable to coastal flooding and erosion.

### 5.5.2. Built Environment and Planning sectoral adaptation plan

The Council has consistently highlighted that the absence of a Built Environment and Planning sectoral adaptation plan (SAP) covering residential, commercial and public buildings is a critical gap in adaptation policy. To date, a dedicated SAP for the sector has not been developed. Although CAP25 committed the Government to completing a scoping exercise for such a plan by Q3 2025, this work has not yet been published and remains in draft form.<sup>[33]</sup>

The Council provided formal written feedback on the scoping exercise to DHLGH on 19 June 2026. The Council acknowledges the effort invested by the department in completing a scoping exercise for the Built Environment and Planning sector. However, the Council is not satisfied that the scoping exercise, as submitted, fulfils the purpose for which it is intended. The statutory purpose of a scoping exercise is to determine the nature and scope of a full SAP, not to substitute for one.

The Council notes that the absence of a dedicated SAP limits the Government's ability to coordinate and implement coherent actions to strengthen the resilience of the built environment and planning system to projected climate impacts. This is particularly concerning given the scale of planned housing delivery, infrastructure development and urban expansion. While relevant policies and guidance exist across areas such as planning, building regulations and flood risk management, these do not collectively constitute a comprehensive, climate risk-led adaptation framework for the sector. The continued delivery of new development without systematically embedded adaptation considerations risks locking in future vulnerability and maladaptation.

Particular attention should be paid to the existing non-heritage building stock. Many of the most significant adaptation challenges are likely to arise in older homes, public buildings, schools, healthcare facilities and other structures that fall outside both new-build standards and protected heritage frameworks. Ireland's building stock faces well-documented and increasing risks from flooding, overheating, extreme winds, moisture ingress and other climate-related hazards. These risks are projected to intensify over the coming decades.<sup>[106]</sup>

The Council recommends that DHLGH revise the Built Environment and Planning sector scoping exercise and develop a structured programme of work to ensure the department is in a position to develop and implement a SAP for the Built Environment and Planning sector in the next SAP cycle. The scoping exercise should be revised or supplemented to properly identify adaptation risks, policy gaps and required actions across the sector's full remit, including existing buildings, new developments and spatial planning, recognising that delivery of adaptation actions may be cross-sectoral.



## References

- 1 Environmental Protection Agency, 'Ireland's Provisional Greenhouse Gas Emissions 1990–2025', 2026. Accessed: Jul. 08, 2026. [Online]. Available: <https://www.epa.ie/publications/monitoring--assessment/climate-change/air-emissions/irelands-provisional-greenhouse-gas-emissions-1990-2025.php>
- 2 Sustainable Energy Authority of Ireland, 'Statistics for national home retrofit programmes'. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.seai.ie/grants/home-energy-grants/home-upgrades>
- 3 Department of Housing, Local Government and Heritage, 'Energy efficiency retrofitting programme – Expenditure & output'. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.gov.ie/en/department-of-housing-local-government-and-heritage/publications/energy-efficiency-retrofitting-programme-expenditure-output/>
- 4 Environmental Protection Agency, 'Ireland's Greenhouse Gas Emissions Projections 2025–2030', 2026. Accessed: May 29, 2026. [Online]. Available: <https://www.epa.ie/publications/monitoring--assessment/climate-change/air-emissions/irelands-greenhouse-gas-emissions-projections-2025-2030.php>
- 5 Environmental Protection Agency, 'Input Assumptions for National Energy Projections and Associated Greenhouse Gas Emissions 2025–2055', 2026. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.epa.ie/publications/monitoring--assessment/climate-change/air-emissions/InputAssumptionsGHGprojections2025to2030.pdf>
- 6 Environmental Protection Agency, 'Ireland's Final Greenhouse Gas Emissions 1990–2024', 2026. Accessed: Apr. 14, 2026. [Online]. Available: <https://www.epa.ie/publications/monitoring--assessment/climate-change/air-emissions/irelands-final-greenhouse-gas-emissions-1990-2024.php>
- 7 Sustainable Energy Authority of Ireland, 'Energy in Ireland 2025 Report', 2025. Accessed: Jun. 23, 2026. [Online]. Available: <https://www.seai.ie/sites/default/files/publications/Energy%20in%20Ireland%202025%20v1.0%20complete.pdf>
- 8 Central Statistics Office, 'Domestic building energy ratings quarter 4 2025'. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.cso.ie/en/releasesandpublications/ep/p-dber/domesticbuildingenergyratingsquarter42025/>
- 9 Sustainable Energy Authority of Ireland, 'Monthly oil statistics'. Accessed: Jun. 23, 2026. [Online]. Available: <https://www.seai.ie/data-and-insights/seai-statistics/monthly-energy-data/oil-monthly>
- 10 Environmental Protection Agency, 'Ireland's Greenhouse Gas Emissions Projections 2024–2055', 2025. Accessed: Jun. 23, 2026. [Online]. Available: <https://www.epa.ie/publications/monitoring--assessment/climate-change/air-emissions/irelands-greenhouse-gas-emissions-projections-2024-2055.php>
- 11 Department of Climate, Energy and the Environment, 'Press release: Government approves Climate Action Plan 2025'. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.gov.ie/en/department-of-climate-energy-and-the-environment/press-releases/government-approves-climate-action-plan-2025/>
- 12 Houses of the Oireachtas, 'Departmental data – Dáil Éireann debate'. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.oireachtas.ie/en/debates/question/2025-06-10/234/>
- 13 Commission for Regulation of Utilities, 'Large Energy Users Connection Policy', 2025. Accessed: Jun. 18, 2026. [Online]. Available: [https://cruie-live-96ca64acab2247eca8a850a7e54b-5b34f62.divio-media.com/documents/CRU2025236\\_Large\\_Energy\\_User\\_connection\\_policy\\_decision\\_paper.pdf](https://cruie-live-96ca64acab2247eca8a850a7e54b-5b34f62.divio-media.com/documents/CRU2025236_Large_Energy_User_connection_policy_decision_paper.pdf)
- 14 Department of Enterprise, Tourism and Employment, and Department of Climate, Energy and the Environment, 'Large Energy User Action Plan', 2026. Accessed: Jun. 18, 2026. [Online]. Available: <https://enterprise.gov.ie/en/publications/publication-files/leap-large-energy-user-action-plan.pdf>



- 15 H. Daly, 'Data centre expansion policy prolongs reliance on fossil fuels'. Accessed: Jun. 23, 2026. [Online]. Available: <https://www.irishtimes.com/environment/climate-crisis/2026/04/02/data-centre-expansion-policy-prolongs-reliance-on-fossil-fuels/>
- 16 Climate Change Advisory Council, 'Annual Review 2026: Electricity', 2026. Accessed: May 21, 2026. [Online]. Available: <https://www.climatecouncil.ie/councilpublications/annualreviewandreport/CCAC-AR2026-2-electricity-final.pdf>
- 17 Houses of the Oireachtas, 'Local authorities – Dáil Éireann debate'. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.oireachtas.ie/en/debates/question/2026-02-25/152/>
- 18 Department of Housing, Local Government and Heritage, 'Press release: Housing Minister announces €140 million to accelerate retrofitting of social homes'. Accessed: Jun. 23, 2026. [Online]. Available: <https://www.gov.ie/en/department-of-housing-local-government-and-heritage/press-releases/housing-minister-announces-140-million-to-accelerate-retrofitting-of-social-homes/>
- 19 Climate Change Advisory Council, 'Annual Review 2024: Built Environment', 2024. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.climatecouncil.ie/councilpublications/annualreviewandreport/AR2024-Built%20Environment.pdf>
- 20 Climate Change Advisory Council, 'Annual Review 2025: Built Environment, Industry and Waste', 2025. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.climatecouncil.ie/councilpublications/annualreviewandreport/CCAC-AR2025-Built%20Environment,%20Industry%20and%20Waste-final.pdf>
- 21 Department of Climate, Energy and the Environment, 'National Residential Retrofit Plan 2026', 2026. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.gov.ie/en/department-of-climate-energy-and-the-environment/publications/national-residential-retrofit-plan/>
- 22 Department of Climate, Energy and the Environment, 'Press release: Minister O'Brien announces suite of new SEAI grant supports – bringing energy upgrades to more and more homeowners'. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.gov.ie/en/department-of-climate-energy-and-the-environment/press-releases/minister-obrien-announces-suite-of-new-seai-grant-supports-bringing-energy-upgrades-to-more-and-more-homeowners/>
- 23 Department of Climate, Energy and the Environment, 'Press release: Applications for home energy upgrades up 96% so far in 2026 – Minister O'Brien'. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.gov.ie/en/department-of-climate-energy-and-the-environment/press-releases/applications-for-home-energy-upgrades-up-96-so-far-in-2026-minister-obrien/>
- 24 Strategic Banking Corporation of Ireland, 'News release: Government and EIB Group confirm support for new low-cost Home Energy Upgrade Loan Scheme'. Accessed: Jun. 23, 2026. [Online]. Available: <https://www.sbc.gov.ie/news/government-and-eib-group-confirm-support-for-new-low-cost-home-energy-upgrade-loan-scheme>
- 25 Strategic Banking Corporation of Ireland, 'Quarterly Report of the Home Energy Upgrade Loan Scheme as at 31st December 2025', 2025. Accessed: Jun. 23, 2026. [Online]. Available: [https://assets.gov.ie/static/documents/1cdd80ae/HEULS\\_Q4\\_Quarterly\\_Report\\_at\\_end\\_Dec\\_2025\\_public.pdf](https://assets.gov.ie/static/documents/1cdd80ae/HEULS_Q4_Quarterly_Report_at_end_Dec_2025_public.pdf)
- 26 Department of Climate, Energy and the Environment, 'National Comprehensive Assessment of the Potential for Efficient Heating and Cooling in Ireland (2025)'. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.gov.ie/en/department-of-climate-energy-and-the-environment/publications/the-national-comprehensive-assessment-of-the-potential-for-efficient-heating-and-cooling-in-ireland/>
- 27 European Commission, 'March infringements package: Key decisions'. Accessed: Jun. 18, 2026. [Online]. Available: [https://ec.europa.eu/commission/presscorner/detail/en/inf\\_26\\_431](https://ec.europa.eu/commission/presscorner/detail/en/inf_26_431)
- 28 Houses of the Oireachtas, 'Departmental reports – Dáil Éireann debate'. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.oireachtas.ie/en/debates/question/2025-12-17/198/>



- 29 Houses of the Oireachtas, 'Legislative process – Dáil Éireann debate'. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.oireachtas.ie/en/debates/question/2025-10-07/33/>
- 30 Houses of the Oireachtas, 'Departmental projects – Dáil Éireann debate'. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.oireachtas.ie/en/debates/question/2025-12-11/290/>
- 31 Houses of the Oireachtas, 'Departmental inquiries – Dáil Éireann debate'. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.oireachtas.ie/en/debates/question/2026-01-21/26/>
- 32 Houses of the Oireachtas, 'Energy policy – Dáil Éireann debate'. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.oireachtas.ie/en/debates/question/2025-09-30/218/>
- 33 Department of the Taoiseach, and Department of Climate, Energy and the Environment, 'Climate Action Plan progress reports'. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.gov.ie/en/department-of-the-taoiseach/publications/climate-action-plan-progress-reports/#climate-action-plan-2025>
- 34 Department of Housing, Local Government and Heritage, 'Press release: Simplified Building Energy Ratings (BER) for residential properties to be introduced from May 2026'. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.gov.ie/en/department-of-housing-local-government-and-heritage/press-releases/simplified-building-energy-ratings-ber-for-residential-properties-to-be-introduced-from-may-2026/>
- 35 Sustainable Energy Authority of Ireland, 'Register as a one stop shop'. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.seai.ie/contractors-and-suppliers/register-with-seai/one-stop-shop>
- 36 EUR-Lex, 'Recommendation (EU) 2026/536 of the European Parliament and of the Council of 10 March 2026 with practical guidance on one-stop shops services for energy efficiency and the energy performance of buildings'. Accessed: Jun. 18, 2026. [Online]. Available: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32026H0536>
- 37 Department of Housing, Local Government and Heritage, 'Press release: Minister Browne announces continuation of Vacant Property Refurbishment Grant targeting "above shop" vacancy'. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.gov.ie/en/department-of-housing-local-government-and-heritage/press-releases/minister-browne-announces-continuation-of-vacant-property-refurbishment-grant-targeting-above-shop-vacancy/>
- 38 Department of Finance, 'Statement by Minister Donohoe on Budget 2026'. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.gov.ie/en/department-of-finance/speeches/statement-by-minister-donohoe-on-budget-2026/#housing>
- 39 Department of Climate, Energy and the Environment, 'Press release: Minister O'Brien welcomes extension of Solar PV Scheme for Medically Vulnerable Customers'. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.gov.ie/en/department-of-climate-energy-and-the-environment/press-releases/minister-obrien-welcomes-extension-of-solar-pv-scheme-for-medically-vulnerable-customers/>
- 40 M. Bercholz, K. Doorley, C. Keane and C. Mowlds, 'The Distributional Impact of Energy Price Increases in Ireland and the Policy Response', 2026. <https://doi.org/10.26504/rn20260201>
- 41 Central Statistics Office, 'CPM24 – Consumer Price Index'. Accessed: Jun. 23, 2026. [Online]. Available: <https://data.cso.ie/table/CPM24>
- 42 Central Statistics Office, 'Ireland's UN SDGs – Goal 7 Affordable and Clean Energy 2024'. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.cso.ie/en/releasesandpublications/ep/p-sdg7/irelandsunsdgs-goal7affordableandcleanenergy2024/keyfindings/>
- 43 Sustainable Energy Authority of Ireland, 'National energy balance'. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.seai.ie/data-and-insights/seai-statistics/key-publications/national-energy-balance>



- 44 B. Wade, P. Carthy and N. Farrell, 'ESRI Working Paper No. 824: Price elasticity of residential natural gas demand: Evidence from population microdata in Ireland', 2026. Accessed: Jun. 18, 2026. [Online]. Available: [https://www.esri.ie/system/files/publications/WP824\\_0.pdf](https://www.esri.ie/system/files/publications/WP824_0.pdf)
- 45 A. Estevez and M. Tovar Reanos, 'Energy Poverty and Affordability in Ireland', 2026. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.esri.ie/system/files/publications/SUSTAT139.pdf>
- 46 European Commission, 'Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: AccelerateEU – Energy Union: Affordable and secure energy through accelerated action'. Accessed: Jun. 18, 2026. [Online]. Available: [https://energy.ec.europa.eu/document/download/7fac9eea-5717-4182-a368-bd68c427ff4c\\_en?filename=Communication.pdf](https://energy.ec.europa.eu/document/download/7fac9eea-5717-4182-a368-bd68c427ff4c_en?filename=Communication.pdf)
- 47 Department of Climate, Energy and the Environment, 'Consultation on the Revised Energy Poverty Action Plan'. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.gov.ie/en/department-of-climate-energy-and-the-environment/consultations/consultation-on-the-revised-energy-poverty-action-plan/>
- 48 Department of Climate, Energy and the Environment, 'National Energy Affordability Taskforce Interim Report', 2025. Accessed: Jun. 18, 2026. [Online]. Available: [https://assets.gov.ie/static/documents/cb7653ef/National\\_Energy\\_Affordability\\_Taskforce\\_Interim\\_Report\\_2025.pdf](https://assets.gov.ie/static/documents/cb7653ef/National_Energy_Affordability_Taskforce_Interim_Report_2025.pdf)
- 49 Pobal and University College Dublin, 'Renewable Energy and Deprivation: Investigating the Relationship between Area-level Deprivation and Household Renewable Energy Usage Using the Pobal HP Deprivation Index', 2025. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.pobal.ie/wp-content/uploads/2025/09/250298-Renewable-Energy-Research-Report-2025-FINAL-190925.pdf>
- 50 Central Statistics Office, 'Survey on Income and Living Conditions (SILC): Enforced deprivation 2025'. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.cso.ie/en/releasesandpublications/ep/p-silced/surveyonincomeandlivingconditionssilcenforceddeprivation2025/keyfindings/>
- 51 J. Kren, E. Kenny, C. O'Toole, E. Shiel and R. Slaymaker, 'Exploring Investment Requirements for Energy Efficiency Upgrades in the Private Rental Sector', 2025. <https://doi.org/10.26504/RS205>
- 52 D. Ryan, 'These £500 plug-in solar panels are about to go on sale: Here's what an expert says you need to know'. Accessed: Jun. 18, 2026. [Online]. Available: <https://theconversation.com/these-500-plug-in-solar-panels-are-about-to-go-on-sale-heres-what-an-expert-says-you-need-to-know-280946>
- 53 Department for Energy Security and Net Zero, and Ministry of Housing, Communities and Local Government, 'Press release: Government to make "plug-in solar" available within months'. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.gov.uk/government/news/government-to-make-plug-in-solar-available-ithin-months>
- 54 Climate Change Advisory Council, 'Letter from Climate Change Advisory Council regarding Budget 2027'. Accessed: Jul. 13, 2026. [Online]. Available: <https://www.climatecouncil.ie/councilpublications/councilcorrespondenceandadvice/Budget%202027%20letter%20to%20Government.pdf>
- 55 Sustainable Energy Authority of Ireland, 'National Heat Study'. Accessed: Jun. 23, 2026. [Online]. Available: <https://www.seai.ie/data-and-insights/national-heat-study>
- 56 Sustainable Energy Authority of Ireland, 'Tallaght District Heating Scheme'. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.seai.ie/case-studies/tallaght-district-heating>
- 57 Department of Climate, Energy and the Environment, 'Press release: Minister O'Brien allocates €5 million to support development costs of district heating projects'. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.gov.ie/en/department-of-climate-energy-and-the-environment/press-releases/minister-obrien-allocates-5-million-to-support-development-costs-of-district-heating-projects/>





- 58 Department of Climate, Energy and the Environment, 'Press release: Minister O'Brien delivers over €1 billion investment in Budget 2026 to accelerate Ireland's energy transition and underpin our journey to a net-zero future'. Accessed: Jun. 23, 2026. [Online]. Available: <https://www.gov.ie/en/department-of-climate-energy-and-the-environment/press-releases/minister-obrien-delivers-over-1-billion-investment-in-budget-2026-to-accelerate-irelands-energy-transition-and-underpin-our-journey-to-a-net-zero-future/>
- 59 Department of Climate, Energy and the Environment, 'Press release: Minister O'Brien announces publication of department's NDP Sectoral Capital Plan for 2026–2030'. Accessed: Jun. 23, 2026. [Online]. Available: <https://www.gov.ie/en/department-of-climate-energy-and-the-environment/press-releases/minister-obrien-announces-publication-of-departments-ndp-sectoral-capital-plan-for-2026-2030/>
- 60 Codema, 'Naas District Heating Feasibility Study: Summary Brochure', 2025. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.codema.ie/wp-content/uploads/2025/08/Naas-DH-Summary-Brochure.pdf>
- 61 Energy Policy and Modelling Group, 'Can Ireland Still Meet Its District Heating Targets by 2030?', 2025. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.ucc.ie/en/epmg/publications/2025-08-13-can-ireland-still-meet-its-district-heating-targets-by-2030.html>
- 62 Department of Climate, Energy and the Environment, 'Press release: New Heat Bill paves the way for district heating nationwide'. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.gov.ie/en/department-of-climate-energy-and-the-environment/press-releases/new-heat-bill-paves-the-way-for-district-heating-nationwide/>
- 63 Department of Climate, Energy and the Environment, 'Press release: Minister O'Brien drives forward legislation to roll out District Heating in Ireland'. Accessed: Jul. 15, 2026. [Online]. Available: <https://www.gov.ie/en/department-of-climate-energy-and-the-environment/press-releases/minister-obrien-drives-forward-legislation-to-roll-out-district-heating-in-ireland/>
- 64 European Investment Bank, 'ELENA Project Factsheet: DH Network Development Ireland', 2026. Accessed: Jun. 23, 2026. [Online]. Available: <https://www.eib.org/files/elena/203-project-factsheet-dh-network-development-ireland.pdf>
- 65 Sustainable Energy Authority of Ireland, 'Nearly zero energy building standard'. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.seai.ie/plan-your-energy-journey/for-your-business/standards/nearly-zero-energy-building-standard>
- 66 European Commission, 'Zero-emission buildings'. Accessed: Jun. 18, 2026. [Online]. Available: [https://energy.ec.europa.eu/topics/energy-efficiency/energy-performance-buildings/energy-performance-buildings-directive/zero-emission-buildings\\_en](https://energy.ec.europa.eu/topics/energy-efficiency/energy-performance-buildings/energy-performance-buildings-directive/zero-emission-buildings_en)
- 67 Geological Survey Ireland, 'An Assessment of Geothermal Energy for District Heating in Ireland'. Accessed: Jun. 18, 2026. [Online]. Available: [https://gsi.geodata.gov.ie/downloads/Geoenergy/Reports/GSI\\_Assessment\\_of\\_GeoDH\\_for\\_Ireland\\_Nov2020\\_v2.pdf](https://gsi.geodata.gov.ie/downloads/Geoenergy/Reports/GSI_Assessment_of_GeoDH_for_Ireland_Nov2020_v2.pdf)
- 68 Geological Survey Ireland, 'Large-scale "deep" geothermal energy'. Accessed: Jun. 18, 2026. [Online]. Available: <https://gsi.ie/en-ie/programmes-and-projects/geothermal/projects/Pages/Deep-geothermal-energy.aspx>
- 69 Geological Survey Ireland, 'Geothermal suitability maps (ground-source heat)'. Accessed: Jun. 18, 2026. [Online]. Available: [https://www.gsi.ie/en-ie/programmes-and-projects/geothermal/projects/Pages/Geothermal-Suitability-Maps-\(Ground-Source-Heat\).aspx](https://www.gsi.ie/en-ie/programmes-and-projects/geothermal/projects/Pages/Geothermal-Suitability-Maps-(Ground-Source-Heat).aspx)
- 70 Sustainable Energy Authority of Ireland, 'Geothermal Energy: Manual of Consenting Procedures', 2025. Accessed: Jun. 18, 2026. [Online]. Available: <https://singlepointofcontact.seai.ie/sites/spoc/files/2025-11/Geothermal-Energy-Manual-SEAI.pdf>



- 71 Geological Survey Ireland, 'Geothermal policy'. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.gsi.ie/en-ie/publications/Pages/Geothermal-Policy.aspx>
- 72 Kilkenny County Council, 'Kilkenny County Council Climate Action Plan 2024–2029', 2024. Accessed: Jun. 18, 2026. [Online]. Available: <https://kilkennycoco.ie/eng/services/environment/climate-action/kilkenny-county-council-climate-action-plan-2024-2029.pdf>
- 73 Limerick City and County Council, 'Local Authority Climate Action Plan 2024–2029', 2024. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.limerick.ie/sites/default/files/media/documents/2024-04/local-authority-climate-action-plan-2024-2029.pdf>
- 74 Waterford City and County Council, 'Waterford City and County Council Climate Action Plan 2024–2029', 2024. Accessed: Jun. 18, 2026. [Online]. Available: <https://waterfordcouncil.ie/app/uploads/2024/05/Waterford-Climate-Action-Plan-2024-2029-UA.pdf>
- 75 Houses of the Oireachtas, 'Select Committee on Climate, Environment and Energy debate – Tuesday, 3 March 2026'. Accessed: Jun. 18, 2026. [Online]. Available: [https://www.oireachtas.ie/en/debates/debate/select\\_committee\\_on\\_climate\\_environment\\_and\\_energy/2026-03-03/3/](https://www.oireachtas.ie/en/debates/debate/select_committee_on_climate_environment_and_energy/2026-03-03/3/)
- 76 Gemini, 'Geothermal energy on the island of Ireland'. Accessed: Jun. 18, 2026. [Online]. Available: <https://geminigeothermal.com/>
- 77 Joint Research Centre, 'Geothermal Energy in the European Union: Status Report on Technology Development, Trends, Value Chains and Markets', 2025. Accessed: Jun. 18, 2026. [Online]. Available: [https://setis.ec.europa.eu/geothermal-energy-european-union-2025-status-report-technology-development-trends-value-chains-and\\_en](https://setis.ec.europa.eu/geothermal-energy-european-union-2025-status-report-technology-development-trends-value-chains-and_en)
- 78 EGEN Geothermal, 'EGEC Geothermal Market Report 2024', 2025. Accessed: Jun. 18, 2026. [Online]. Available: <https://energycluster.is/library?itemid=05d2b5d8-d6e6-4645-b48c-9cbd2a405683&type=pdf>
- 79 EMBER, 'Hot Stuff: Geothermal Energy in Europe', 2026. Accessed: Jun. 18, 2026. [Online]. Available: <https://ember-energy.org/app/uploads/2026/02/Hot-stuff-geothermal-energy-in-Europe-1.pdf>
- 80 European Commission, 'National building renovation plans'. Accessed: Jul. 08, 2026. [Online]. Available: [https://energy.ec.europa.eu/topics/energy-efficiency/energy-performance-buildings/national-building-renovation-plans\\_en](https://energy.ec.europa.eu/topics/energy-efficiency/energy-performance-buildings/national-building-renovation-plans_en)
- 81 European Commission, 'March infringements package: Key decisions'. Accessed: Jun. 18, 2026. [Online]. Available: [https://ec.europa.eu/commission/presscorner/detail/en/inf\\_26\\_431](https://ec.europa.eu/commission/presscorner/detail/en/inf_26_431)
- 82 Government of Ireland, 'Climate Action Plan 2025', 2025. Accessed: Jun. 18, 2026. [Online]. Available: [https://assets.gov.ie/static/documents/c491032e/DECC\\_Climate\\_Action\\_Plan\\_2025\\_Main\\_Report\\_-\\_Final\\_Web.pdf](https://assets.gov.ie/static/documents/c491032e/DECC_Climate_Action_Plan_2025_Main_Report_-_Final_Web.pdf)
- 83 European Commission, 'Annex to the Commission Notice: Providing Guidance on New or Substantially Modified Provisions of the Recast Energy Performance of Buildings Directive (EU) 2024/1275', 2024. Accessed: Jun. 18, 2026. [Online]. Available: [https://energy.ec.europa.eu/document/download/205d9030-1a81-4c0e-aa65-af87b7a0b57d\\_en?filename=Minimum+energy+performance+standards+for+non-residential+buildings+and+trajectories+for+the+progressive+renovation+of+residential+buildings+%28Article+9%29+-+annex+1.pdf](https://energy.ec.europa.eu/document/download/205d9030-1a81-4c0e-aa65-af87b7a0b57d_en?filename=Minimum+energy+performance+standards+for+non-residential+buildings+and+trajectories+for+the+progressive+renovation+of+residential+buildings+%28Article+9%29+-+annex+1.pdf)
- 84 European Heat Pump Association, 'News release: Who's banning fossil fuel boilers?' Accessed: Jun. 18, 2026. [Online]. Available: <https://ehpa.org/news-and-resources/news/whos-banning-fossil-fuel-boilers/>
- 85 M. Lynch, M. Tovar and N. Farrell, 'A review of residential heat decarbonisation in Ireland', 2026. [https://doi.org/10.26504/QEC2026SPR\\_SA\\_Lynch](https://doi.org/10.26504/QEC2026SPR_SA_Lynch)





- 86 Department of Climate, Energy and the Environment, 'Heat and Built Environment Taskforce'. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.gov.ie/en/department-of-climate-energy-and-the-environment/publications/heat-and-built-environment-taskforce/#minutes-of-meetings>
- 87 Government of Ireland, 'Heat and Built Environment Taskforce: Meeting minutes', Dec. 2025. Accessed: Jun. 18, 2026. [Online]. Available: [https://assets.gov.ie/static/documents/05388c98/Heat\\_and\\_Built\\_Environment\\_Taskforce\\_-\\_Minutes\\_from\\_Meeting\\_16\\_-\\_3\\_December\\_2025.pdf](https://assets.gov.ie/static/documents/05388c98/Heat_and_Built_Environment_Taskforce_-_Minutes_from_Meeting_16_-_3_December_2025.pdf)
- 88 European Commission, 'EU-level Technical Guidance on Adapting Buildings to Climate Change', 2023. Accessed: Jun. 18, 2026. [Online]. Available: <https://op.europa.eu/en/publication-detail/-/publication/7cca7ab9-cc5e-11ed-a05c-01aa75ed71a1/language-en>
- 89 European Commission, 'Energy performance of buildings'. Accessed: Jun. 18, 2026. [Online]. Available: <https://eur-lex.europa.eu/EN/legal-content/summary/energy-performance-of-buildings.html>
- 90 EUR-Lex, 'Directive (EU) 2024/1275 of the European Parliament and of the Council of 24 April 2024 on the energy performance of buildings (recast)'. Accessed: Jun. 18, 2026. [Online]. Available: [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ%3AL\\_202401275](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ%3AL_202401275)
- 91 European Commission, 'From policy to practice: How renovation passports empower Europe's Renovation Wave'. Accessed: Jun. 18, 2026. [Online]. Available: <https://build-up.ec.europa.eu/en/resources-and-tools/articles/how-renovation-passports-empower-europes-renovation-wave>
- 92 Irish Green Building Council, 'Building a Zero Carbon Ireland: 2026 Government Policy Scorecard', 2026. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.igbc.ie/wp-content/uploads/2026/05/Building-a-Zero-Carbon-Ireland-2026-Government-Policy-Scorecard-Digital-Version.pdf>
- 93 Sustainable Energy Authority of Ireland, Irish Green Building Council, and Limerick Institute of Technology, 'Introducing Building Renovation Passports in Ireland: Feasibility Study', 2020. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.igbc.ie/wp-content/uploads/2020/09/Introducing-BRP-In-Ireland-Feasibility-Study.pdf>
- 94 Houses of the Oireachtas, 'Business supports – Dáil Éireann debate'. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.oireachtas.ie/en/debates/question/2025-11-04/199/>
- 95 Dáil Éireann, 'Joint Committee on Climate, Environment and Energy – Wednesday, 15 April 2026', 2026. Accessed: Jun. 18, 2026. [Online]. Available: [https://data.oireachtas.ie/ie/oireachtas/debateRecord/joint\\_committee\\_on\\_climate\\_environment\\_and\\_energy/2026-04-15/debate/mul@/main.pdf](https://data.oireachtas.ie/ie/oireachtas/debateRecord/joint_committee_on_climate_environment_and_energy/2026-04-15/debate/mul@/main.pdf)
- 96 Houses of the Oireachtas, 'Housing schemes – Dáil Éireann debate'. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.oireachtas.ie/en/debates/question/2026-04-14/511/>
- 97 Houses of the Oireachtas, 'Departmental schemes – Dáil Éireann debate'. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.oireachtas.ie/en/debates/question/2025-11-25/174/>
- 98 Sustainable Energy Authority of Ireland, 'The Warmer Homes Scheme'. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.seai.ie/grants/home-energy-grants/fully-funded-upgrades-for-certain-homeowners>
- 99 B. Coyne and E. Denny, 'Mind the energy performance gap: Testing the accuracy of building Energy Performance Certificates in Ireland', *Energy Efficiency*, vol. 14, no. 6, 57, Jul. 2021, <https://doi.org/10.1007/S12053-021-09960-1>
- 100 Economic and Social Research Institute, 'An Examination of Energy Efficiency Retrofit Scheme Applications by Low-income Households in Ireland', 2022. Accessed: Jun. 23, 2026. [Online]. Available: <https://www.esri.ie/publications/an-examination-of-energy-efficiency-retrofit-scheme-applications-by-low-income-0>



- 101 P. Lentz, C. Augustenborg and L. Lades, 'Reducing Administrative Frictions in Ireland's Afforestation Scheme', 2024. Accessed: Jun. 23, 2026. [Online]. Available: <https://publicpolicy.ie/papers/reducing-administrative-frictions-in-irelands-afforestation-scheme/>
- 102 Department of Climate, Energy and the Environment, 'Press release: Minister O'Brien announces increased grant rates for Approved Housing Bodies and households at risk of energy poverty'. Accessed: Jun. 23, 2026. [Online]. Available: <https://www.gov.ie/en/department-of-climate-energy-and-the-environment/press-releases/minister-obrien-announces-increased-grant-rates-for-approved-housing-bodies-and-households-at-risk-of-energy-poverty/>
- 103 Central Statistics Office, 'Census of Population 2016 – Profile 2 population distribution and movements'. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.cso.ie/en/releasesandpublications/ep/p-cp2tc/cp2pdm/pd/>
- 104 Insurance Ireland, 'Coastal flooding in Ireland 2025: What share of Ireland's new builds are at flood risk – and how big could the financial losses get?' Accessed: Jun. 18, 2026. [Online]. Available: <https://insuranceireland.eu/news-and-publications/blog/coastal-flooding-in-ireland-2025-how-much-of-irelands-new-building-stock-is-vulnerable-and-what-scale-of-financial-losses-could-arise-in-the-event-of-a-severe-flood/>
- 105 Climate Change Advisory Council, 'Climate Change Advisory Council Working Paper No. 40: Managing Coastal Risks in Ireland – Towards Strategies that Integrate Planned Coastal Relocations', 2026. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.climatecouncil.ie/councilpublications/councilworkingpaperseries/Final%20Report%20on%20managing%20coastal%20risks%20in%20Ireland.pdf>
- 106 Climate Ireland, 'National Climate Change Risk Assessment'. Accessed: Aug. 18, 2025. [Online]. Available: <https://www.climateireland.ie/impact-on-ireland/national-climate-change-risk-assessment/>
- 107 Department of Housing, Local Government and Heritage, and Office of Public Works, 'Report of the Inter-Departmental Group on National Coastal Change Management Strategy', 2023. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.gov.ie/en/publication/a43f3-report-of-the-inter-departmental-group-on-national-coastal-change-management-strategy/>
- 108 Department of Housing, Local Government and Heritage, and Office of Public Works, 'Press release: Report on National Coastal Change Management Strategy sets out long-term blueprint to deal with future coastal change'. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.gov.ie/en/department-of-housing-local-government-and-heritage/press-releases/report-on-national-coastal-change-management-strategy-sets-out-long-term-blueprint-to-deal-with-future-coastal-change/>
- 109 Department of the Taoiseach, 'Programme for Government 2025: Securing Ireland's Future', 2025. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.gov.ie/en/department-of-the-taoiseach/publications/programme-for-government-2025-securing-irelands-future/>
- 110 Environment Agency, 'Shoreline management plans'. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.gov.uk/guidance/shoreline-management-plans>
- 111 Department for Environment, Food and Rural Affairs, 'Coastal Change Pathfinder Review: Final Report', 2012. Accessed: Jun. 18, 2026. [Online]. Available: <https://www.gov.uk/government/publications/coastal-change-pathfinder-review>
- 112 Department for Environment, Food and Rural Affairs, and Regeneris Consulting, 'Coastal Pathfinder Evaluation: An Assessment of the Five Largest Pathfinder Projects', 2011. Accessed: Jun. 18, 2026. [Online]. Available: <https://assets.publishing.service.gov.uk/media/5a79d3f0ed915d6b1deb3a36/pb13721-coastal-pathfinder-evaluation.pdf>
- 113 C. Wolff, F. Bade and C. M. Kraan, 'Insights from managed retreat projects in Europe', *Earths Future*, vol. 14, no. 3, e2025EF007012, Mar. 2026, <https://doi.org/10.1029/2025EF007012>