



Riailtas na hÉireann
Government of Ireland

Irish Sovereign Green Bond

Allocation Report 2023

Contents

Introduction and Summary	3
Acknowledgements	4
Green Budgeting	5
Governance and Project Selection	11
Compliance Review by Sustainalytics	12
Allocation Table and Analysis for 2023	14
Notes to the Allocation Table	18
Case Studies of Allocations	35



Introduction and Summary

This is the sixth annual allocation report issued in accordance with the Irish Sovereign Green Bonds (“ISGB”) Framework.

ISGBs are designed to provide investors with the financial features of a standard Irish government bond combined with sovereign green bond market practices. ISGB proceeds are paid into the Central Fund in the same manner as standard government bonds. They are allocated against eligible green projects which generate a positive environmental benefit.

In total this Report details €521 million of allocations to eligible green projects. These proceeds were raised in the bond auction held in March 2024 when 517.15 million of 3% Treasury Bond 2043 was sold at a price of 100.74.

The ISGB Working Group has decided to allocate these proceeds to 2023 eligible green projects. This represents 15.3% of climate and environmental related expenditure during the year. Ireland’s strong fiscal position has created a low debt issuance requirement which is reflected in this percentage.

Table 1: Proceeds raised and allocations timeline

Year	2017/18	2019	2020	2021	2022	2023	2024
Starting balance (1)*	Nil	1,034,361,382	1,317,704,382	197,572,652	Nil	Nil	Nil
Proceeds from sales of ISGBs (2)	2,983,410,000	2,252,380,000	1,268,980,270	838,844,500	Nil	3,444,140,000	520,976,910
Total proceeds for allocation (3) (1+2)	2,983,410,000	3,286,741,382	2,586,684,652	1,036,417,152	Nil	3,444,140,000	520,976,910
Allocations to eligible green projects (4)	1,949,048,618	1,969,037,000	2,389,112,000	2,501,421,019 (See note 1)	1,979,136,133 (See note 2)	520,976,910 (See note 3)	
End-year balance (3-4)	1,034,361,382	1,317,704,382	197,572,652	Nil	Nil	Nil	N/A
Nominal ISGB debt outstanding at year-end	3,000,000,000	5,000,000,000	6,100,590,000	6,848,090,000	6,848,090,000	10,348,090,000	10,865,240,000

Note 1 - 1,465,003,867 allocated from proceeds generated in 2023

Note 2 - Allocated from proceeds generated in 2023

Note 3 - A llocated from proceeds generated in 2024

An overview of Ireland’s green budgeting process is provided in this report and the EU Taxonomy is one of the key elements in the forward-looking analysis. It considers both favourable and potentially unfavourable climate-related expenditure.

Acknowledgements

This Report was produced with the co-operation of Government departments and other State bodies responsible for expenditure and subsidies which are allocated from the proceeds of ISGBs. The ISGB Working Group is grateful to the many colleagues who provided information and assistance.

Those Government departments and State bodies are as follows:

- [Department of Finance](#)
- [Department of Public Expenditure, NDP Delivery and Reform](#)
- [Department of Housing, Local Government and Heritage](#)
- [Department of Transport](#)
- [Department of Agriculture, Food and the Marine](#)
- [Department of the Environment, Climate and Communications](#)
- [Office of Public Works \(OPW\)](#)
- [National Treasury Management Agency](#)

Green Budgeting

Climate and Environmental expenditure allocations in the Revised Estimates for Public Services 2024

Overview

Green budgeting is the broad term given to reforms that seek to better embed climate and environmental information within the budgetary process, supporting the delivery of improved environmental outcomes. While Minister for both Public Expenditure & Reform and for Finance, Minister Paschal Donohoe committed to the implementation of a series of progressive green budgeting reforms in Budget 2019, and this has been a process of iterative development on an annual basis since then for both the Department of Public Expenditure, NDP Delivery and Reform (DPENDR) and the Department of Finance. Progress to date includes:

- The development and continued implementation of a system of expenditure identification and tagging;
- Assessment of the contribution Exchequer-funded capital spending in the National Development Plan (NDP) will make to a range of climate / environmental outcomes; and
- A review of fossil fuel subsidies and other potentially climate harmful supports.

DPENDR tracks and reports on climate-favourable expenditure. Green Budgeting is a consideration of the probable environmental impacts of expenditure allocations as well as climate impacts, and of expenditure that may have favourable or unfavourable impacts on the climate and environment. The criteria considered are broadly based on those contained within the EU Taxonomy for Sustainable Activities.

Green Budgeting facilitates reporting and allocation of Ireland's sovereign green bonds. However, green budgeting and the allocation of green bond proceeds are separate procedures and are not intended to reconcile in the accounting sense. The framework used for this exercise are discussed in the 2018 staff paper [An Introduction to the Implementation of Green Budgeting in Ireland](#).

The publication of results in the Revised Estimates Volume (REV), while useful and transparent, has produced relatively high-level summary information, collating any subhead allocations for the year ahead for inclusion in the table where it is evident that the majority of expenditure on the subhead in question aims to support improved climate change mitigation and adaptation outcomes. While this information is clearly of use, in 2023, the Department decided to revise this process, and has now begun implementing a work programme targeting several improvements and methodological changes in each iteration over the next number of years, beginning with the Revised Estimates for the Public Service 2024. These include:

- Both **favourable and potentially unfavourable expenditure** being identified and reported;
- Consideration of all 6 climate/environmental objectives in line with the **EU Taxonomy** for Sustainable Activities;
- Programme/project & **direct/indirect impact** consideration (where information allows);
- Alignment of reporting of outturn and outcomes with the **Performance Budgeting** framework;
- Improved **communication**, including further detail included in REV Appendix and a standalone **report** outlining methodology and results published alongside the REV; and
- Incorporation of reporting and use of information through the Department's **IT systems**.

These are discussed further below. In support of these reforms, Ireland is an active participant in the OECD Paris Collaborative on Green Budgeting, and in the Coalition of Finance Ministers for Climate Action, and engages in training and exchange initiatives relating to green budgeting with EU institutions and other Member States, aiming to share its expertise and learn from international best practice in this area. Ireland is generally considered to have a well-developed green budgeting framework (see Table 2), and [the latest OECD survey of such practices](#) considers Ireland the second highest performer among national Governments surveyed.

Table 2: Elements of the European Commission’s Green Budgeting Reference Framework (IE in bold)

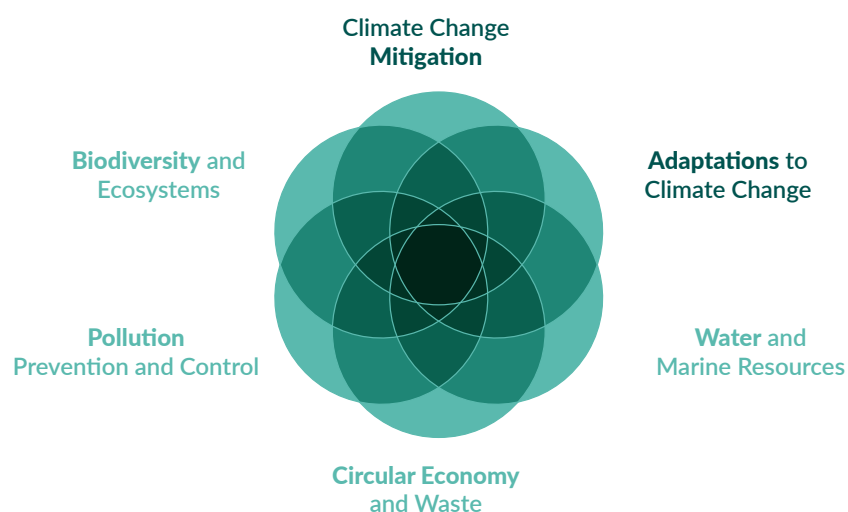
	Essential	Developed	Advanced
Coverage	Climate-related Favourable items (revenue & expenditure) Central-government	+ Other objectives + Unfavourable items + Sub-national governments	All objectives (EU Taxonomy) + Tax expenditure + Other (e.g., SOEs)
Methodology	Tagging methodology [simple]	Tagging methodology [more granular]	+ <i>Ex-ante impact assessment</i> + <i>Ex-post evaluation</i>
Deliverables	Presentation in annual budget Presentation in execution report	+ Presentation of estimates in multi-annual plans	+ <i>Extra-budgetary entities reports</i>
Governance	Ad-hoc central task-force	Permanent central structure	+ <i>Green budgeting correspondents in line ministries</i>
Transparency & Accountability	All deliverables public Independent evaluation of methodology	+ Independent evaluation of deliverables + Parliamentary discussion	+ <i>Ex-post review</i>

Initiatives like this will make Government action on climate change more transparent to citizens and will raise awareness and understanding of the specific impacts of individual climate and environmental policies. Ultimately, they have the potential to support changes to policy making that will result in improved environmental outcomes.

Widening Criteria for Assessment

As stated above, for the 2024 iteration of the REV, the assessment used for this exercise was revised to incorporate consideration of the probable environmental impacts of expenditure allocations as well as climate impacts, and of expenditure that may have favourable or unfavourable impacts. The criteria considered for assessment are broadly based on those in the EU Taxonomy for Sustainable Activities.

Figure 1: Climate and Environmental objectives of the EU Taxonomy for Sustainable Activities

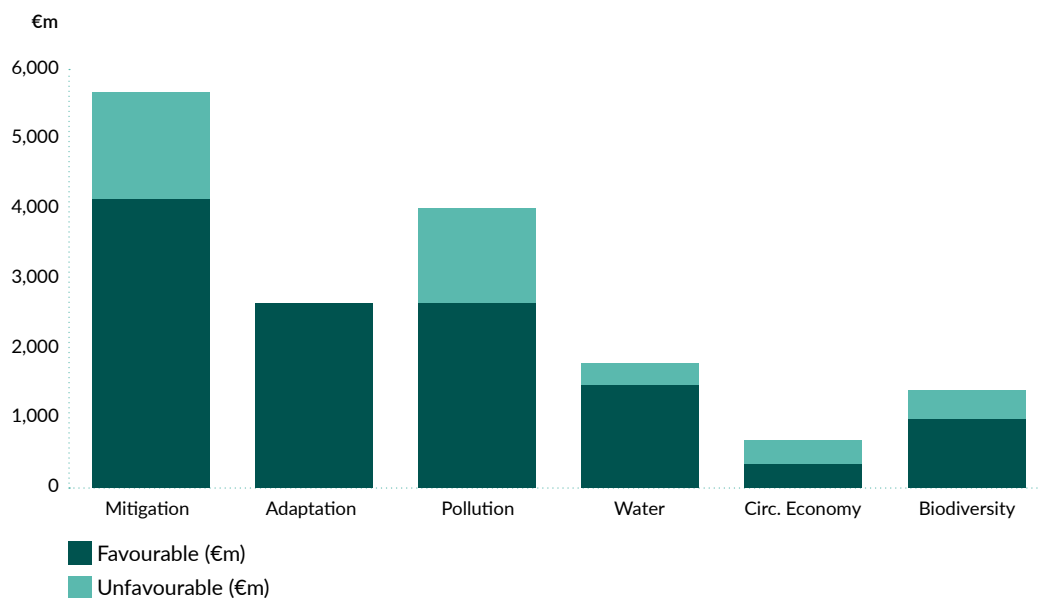


The EU Taxonomy¹, while initially developed as a tool for the private sector, is increasingly in use by individual Member States of the European Union and by the Union institutions themselves to assess the environmental impact of public investment. Aligning Ireland's national public expenditure assessment with this practice is forward-looking and allows for comparison with best practice internationally with a view to improving this methodology in future iterations.

The expenditure items were assessed using the following six environmental criteria, with amounts impacting each estimated in Figure 2 below:

- 1. Climate change mitigation** – the process of holding the increase in the global average temperature to well below 2 °C and pursuing efforts to limit it to 1.5 °C above preindustrial levels, through human intervention to reduce the source or enhance the sinks of greenhouse gases.
- 2. Climate change adaptation** – preparation for and adjustment to both the current effects of climate change the predicted impacts in the future.
- 3. Protection of Water and Marine Resources** – achieving good (environmental) status of bodies of water, including bodies of surface water, groundwater, and marine water, or preventing the deterioration of bodies of water that already have good (environmental) status.
- 4. Transition to a Circular Economy and Waste Management** - maintaining the value of products, materials and other resources in the economy for as long as possible, enhancing their efficient use in production and consumption, thereby reducing the environmental impact of their use, minimising waste and the release of hazardous substances at all stages of their life cycle.
- 5. Pollution Prevention and Control** – prevention and control of the direct or indirect introduction of pollutants into air, water or land as a result of human activity.
- 6. Protection and Restoration of Biodiversity and Ecosystems** - protection and support for the variability between and among living organisms arising from all sources including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part.

Figure 2: Climate and Environmental Expenditure Allocations by Criteria



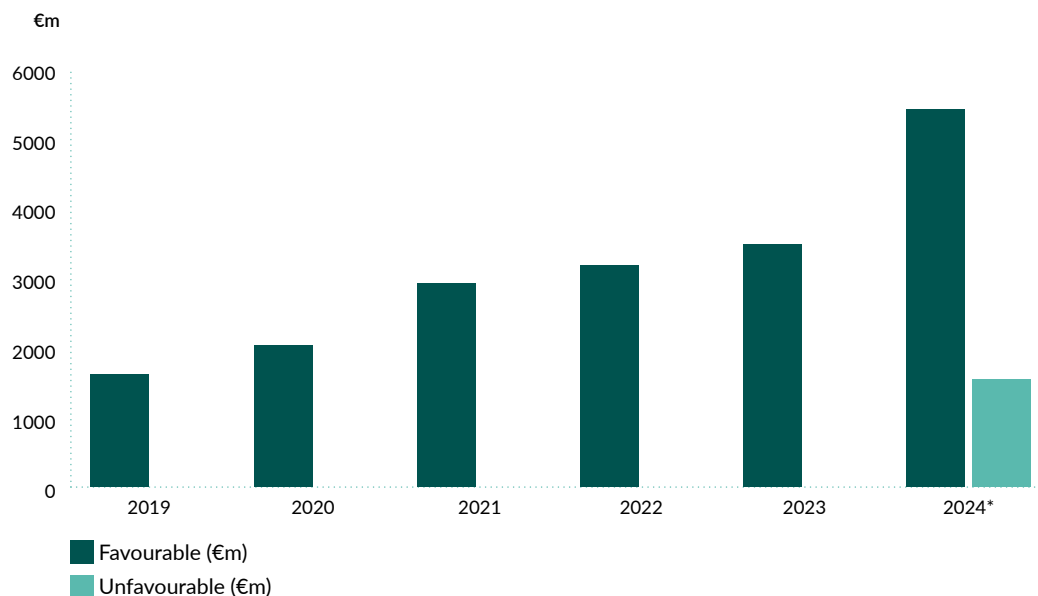
1 Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment ("EU Taxonomy"). The European Commission's EU Taxonomy Navigator provides further background detail on this system: <https://ec.europa.eu/sustainable-finance-taxonomy/>.

The potential impact of expenditures for all criteria was compared to a counterfactual scenario where the programme or project was not progressed or was reduced. This should not be taken in any way as a suggestion that the counterfactual be implemented. This process does not consider any other policy objectives, some of which may be essential to be prioritised, irrespective of climate and environmental impact.

REV 2024 Overall Results – Favourable & Unfavourable Expenditure

As summarised in Figure 3, c. €5,418 million of expenditure allocated in REV 2024 is considered to have a probable favourable impact on the climate and environmental criteria outlined. This includes programmes targeting emissions reductions through residential, public, and community retrofitting, public transport investment, flood risk management, funding for State agencies implementing climate and environmental policies, programmes aimed at protection of the environment and enhancement of biodiversity and ecosystems through habitat restoration and protection, agri-environmental schemes, and spending targeting improvements in waste management and water quality.

Figure 3: Climate and Environmental Expenditure in the Revised Estimates Allocations



**2024 marked a methodological change from previous years, as outlined above*

It is also estimated that c. €1,539 million of expenditure will have a probable unfavourable impact on these 6 criteria. This includes expenditure items which would be considered fossil fuel subsidies and other potentially harmful supports, involve emissions-intensive activities in transport, agriculture and industry, or involve the provision of funding which enables those activities, and which involve infrastructure and construction projects with net unfavourable environmental impacts.

The identification of expenditure as potentially unfavourable is not in any way a suggestion that a policy or programme is flawed or should not proceed. Many of these schemes will have essential social or other policy purposes. Rather it acknowledges the likely practical consequences of the programme from a climate and environmental perspective so that consideration can be given to how any impact can be mitigated or minimised, and where this is not possible, it highlights the need for the Government to have regard to other measures to offset the potentially unfavourable consequences of necessary expenditures.

The value of this exercise is not in making a determination of the relative climate or environmental-friendliness of individual measures for its own purposes, but rather in encouraging Government Departments to consider the climate and environmental impacts of their spending plans in the policy development phase, taking steps to ensure negative impacts are minimised to the greatest extent possible, and ensuring that measures intended to have positive impacts are as effective in doing so as they can be. Ultimately this exercise aims to provide additional detail to inform the cost effectiveness and value-for-money impact of Government expenditure.

These amounts represent a high-level estimate of the allocations with a probable impact, however this may understate the public resources applied to these objectives, given the exclusion of non-exchequer sources of funding such as the Climate Action and Circular Economy Funds, and investments by commercial State bodies. Green budgeting is a process of iterative development for DPENDR, is based on the best available information, and is subject to ongoing review.

Improving Communication

The results of this assessment are summarised in [REV Annex 6](#), available on gov.ie. Annex 6 represents a high level summary of climate and environment-related expenditure as allocated in 2024. The Annex also highlights the proportions of relevant expenditure within the subheads of each Department's Vote.

Alongside the REV Annex, the Department also published a standalone report on this assessment for the first time in December 2023, which outlines the rationale, methodology, definitions used, and the results of this work in further detail. This report, [Green Budgeting in REV 2024: Climate and Environmental Expenditure in the Revised Estimates for Public Services](#) is intended to be an annual publication and is also available on gov.ie.

Next Steps

Green budgeting initiatives, while focussed closely on the climate and environmental impacts of public expenditure, are nonetheless important elements of the Performance Budgeting framework, which seeks to report on the outputs and impacts of public expenditure overall. While initially developed as a separate initiative, the progress made in developing approaches to 'green' tagging closely complements reporting of relevant indicators of performance on relevant expenditure items. Closer integration is a focus of the revised programme of work referred to above. As a step in this process of closer integration with performance budgeting, all Departments have been asked to note the intention to incorporate reporting of metrics in relation to climate and environmental expenditure so identified from the next iteration of the Performance Report, regarding REV 2024, onwards, likely on a phased basis.

This effort is intended to make Government action on climate change & environmental goals more transparent to citizens and to raise awareness and understanding of the specific impacts of individual climate and environmental policies, and can ultimately support necessary policy change. Strengthening the link between resource allocation, delivery of intended outputs, and their ultimate impact on climate and environmental outcomes is a priority, in line with the continued development of an overarching performance framework that encompasses green, well-being, equality and SDG budgeting.

This complements the usual methodological and process improvements that will be made throughout the year in preparation for the REV 2025 iteration of this exercise, including the planned integration with the Department's internal IT system.

Further Information

All of DPENDR's publications on green budgeting, including the papers referenced above, can be found on the Department's website [here](#).

National Development Plan 2021-2030

The National Development Plan 2021–2030 (NDP) published in 2021 is backed by funding of €165 billion. This expenditure is pivotal in delivering the infrastructure needed to support our future economic requirements and to address our social investment and climate change commitments. An additional €2.25 billion from the windfall corporation tax receipts was made available to capital expenditure over the period 2024-26 in the Summer Economic Statement (SES) 2023. This was to facilitate the progression of important projects and enable more rapid development of key Programme for Government commitments.

The additional €2.25 billion builds on the existing funding already available under the NDP out to 2026 and it will mean more schools, housing, transport and healthcare projects can be progressed and delivered. The distribution to Departments of the additional €2.25 billion over the period 2024-26 was agreed by Government in March 2024. As a percentage of national income, annual capital investment is among the highest in the EU and well above the recent average of 3% of national income. In 2023, over €12 billion funded vital infrastructure in areas such as housing, transport, education, enterprise, sport and climate action.

In addition to the existing NDP allocations detailed above, it is also possible that there will be additional capital available from 2026 to 2030 through the Infrastructure, Climate and Nature Fund (ICNF) once the legislation has been established. The ICNF has two components, which are support for climate and nature projects and counter-cyclical support for infrastructure projects. Each year, €2 billion will be invested in the ICNF, from 2024 to 2030, building a total contribution to the fund of €14 billion. A possible €3.15 billion, or 22.5% of the total €14 billion fund, could be released over the 2026 to 2030 period to support climate and nature related capital projects.

The NDP is also intended to move the economy onto a more environmentally sustainable path, a path that is compatible with the Irish Government's domestic climate commitments and the Paris Agreement. In that regard, extensive efforts were made to ensure that the NDP was the greenest ever and supports Ireland's climate ambitions.

For the first time in Ireland, a thorough climate and environmental assessment of every measure considered for inclusion in the plan was undertaken. The plan as a whole was assessed for alignment against the principles of a green recovery plan and specific commitments were made on the hypothecation of carbon tax receipts and further climate and environmental reforms to investment appraisal. More details on this are available at this [link](#).

Governance and Project Selection

As set out in the ISGB Framework, the ISGB Working Group oversees the implementation of the ISGB Framework, including reporting on the allocation of proceeds to eligible green projects. It is comprised of representatives from the National Treasury Management Agency, the Department of Public Expenditure, National Development Plan Delivery and Reform, the Department of the Environment, Climate and Communications and the Department of Finance. It is assisted closely by the Department of Transport, Department of Agriculture, Food and the Marine, Department of Housing, Local Government and Heritage and the Office of Public Works. The Working Group consulted with other Government departments and State bodies in carrying out its remit. This includes the identification of eligible green projects which are evaluated and selected for allocation under the ISGB Framework based on the use of proceeds criteria. These projects are, where relevant, in line with those identified in the Revised Estimates for Public Expenditure – see this [link](#) for more details.

The objective is to finance, or refinance, eligible green projects which:

- promote, in whole or in part and whether directly or indirectly, Ireland's transition to a low carbon, climate-resilient and environmentally sustainable economy;
- are funded, in whole or in part and whether directly or indirectly, through Exchequer funded expenditures, subsidies or tax foregone; and where the relevant Exchequer expenditure has been provided within the 24 month period preceding the issue date of the relevant ISGB to refinance an existing project; and which otherwise qualify under the Framework.

This Report outlines how the allocations were made in 2023 across the six eligible green categories set out in the ISGB Framework:

- Built Environment/Energy Efficiency
- Clean Transportation
- Climate Change Adaptation
- Environmentally Sustainable Management of Living Natural Resources and Land Use
- Renewable Energy
- Sustainable Water and Wastewater Management

Compliance Review by Sustainalytics

Based on the limited assurance procedures conducted, nothing has come to Sustainalytics' attention that causes us to believe that, in all material respects, the Nominated Expenditures do not conform with the use of proceeds criteria and reporting commitments in the Framework. NTMA has disclosed to Sustainalytics that the proceeds from the 2024 ISGB were fully allocated as of August 2024.

The full compliance review is available on the National Treasury Management Agency's website at this link: <https://www.ntma.ie/uploads/publication-articles/Government-of-Ireland-Annual-Review-2024-Final.pdf>

Allocation Table and Analysis for the year ended 2023

The table of expenditure and allocations on eligible green projects of this allocation report is assembled as follows:

- **Eligible Green Categories:** Projects/Programmes/Schemes aligned with the six eligible green categories as set out in the ISGB Framework.
- **Notes:** Each Project/Programme/Scheme has an explanatory note.
- **Project/Programme/Scheme:** These have been identified by the ISGB Working Group.
- **2023 Expenditure:** The expenditure numbers for 2023 used in this Report are based on a provisional outturn principally provided by the Department of Public Expenditure, NDP Delivery and Reform in its databank and will be subject to finalization later in 2024 in the 2023 Appropriation Accounts.
- **Allocation from ISGB Proceeds:** The amount allocated to each Project/Programme/ Scheme is shown and is sub-totaled by eligible green category.

The total allocation of proceeds to 2023 is €521 million which is a full allocation of the proceeds raised in an auction of ISGBs in March 2024.

Allocation Table for 2023

Table 3: Eligible Green Category and Programmes

	Note	Eligible Green Expenditure € '000s	ISGB Proceeds Allocation € '000s
Built Environment/Energy Efficiency			
Non-Residential Energy Efficiency Programmes	1	93,386.0	14,265.9
SEAI Admin and General Expenses	2	25,171.0	3,845.2
Energy Efficiency - Retrofitting	3	76,900.0	11,747.5
Category total		195,457.0	29,858.6
Clean Transportation			
Public transport Investment	4	757,621.0	115,736.3
Public Service Provision Payments	5	607,329.0	92,777.3
Active Travel Infrastructure	6	347,819.0	53,113.8
Carbon Reduction	7	82,889.0	12,662.4
Greenways	8	23,982.0	3,663.6
Low Emission Vehicle incentivisation	9	25,400.0	3,880.2
Category total		1,845,040.0	281,853.4
Climate Change Adaptation			
Flood Risk Management (OPW)	10	59,242.0	9,050.0
Climate Initiatives	11	9,132.0	1,395.0
Category total		68,374.0	10,445.0

Table 3: Eligible Green Category and Programmes

	Note	Eligible Green Expenditure € '000s	ISGB Proceeds Allocation € '000s
Environmentally Sustainable Management of Living Natural Resources and Land Use			
Forestry and Bio-energy	12	73,746.0	11,265.6
Environmental Protection Agency - Administrative expenses	13	44,430.0	6,787.2
National Heritage (National Parks and Wildlife Service)	14	62,921.0	9,612.0
Waste Management Programmes	15	22,848.0	3,490.3
International Climate Change Commitments	16	26,408.0	4,034.2
Environmental and Climate Research	17	16,173.0	2,470.6
Peatlands restoration and management	18	5,030.0	768.4
Category total		251,556.0	38,428.4
Renewable Energy			
Energy Research Programmes	19	17,786.0	2,717.0
Category total		17,786.0	2,717.0
Sustainable Water and Wastewater Management			
Capital Expenditure provided to Irish Water for domestic services	20	970,600.0	148,271.5
Rural Water Programme	21	61,553.0	9,403.0
Category total		1,032,153.0	157,674.5
Grand Total		3,410,366.00	520,976.91

*Note: Sub-totals and totals in Table may not sum up as shown due to rounding.

Notes to the 2023 Allocation Table

1 Non-Residential Energy Efficiency Programmes

For both business and public sector schemes, the final annual energy savings for 2023 was 371GWh.

Public sector

Expansion of the Pathfinder programme in 2023. Pathfinder is based on a co-funding model between SEAI and national estate portfolio leads. €69.686m was invested by SEAI in public sector capital projects under the Pathfinder scheme in 2023.

Public policy on energy efficiency in public sector buildings has been primarily advanced via 2 programmes run by the Sustainable Energy Authority of Ireland (SEAI.)

The first programme, the public sector partnership, is based around engagement with public bodies. This includes training; advice on operational actions public bodies can take to reduce day-to-day energy consumption and the administration of a system for monitoring and reporting (M&R) of energy data in the public sector. The M&R system is required for Ireland's reporting under various EU Directives and is currently being expanded to encompass carbon emissions and other obligations on public bodies.

The second programme, Public Sector Pathfinders, is a capital programme. The Pathfinder programme has been the driving force in recent years behind capital retrofit projects in the public sector.

Business

Following scheme amendment in Q1 2023, SEAI issued its two largest ever grant offers under the EXEED scheme in September 2023 for €559k and in November 2023 for €686k. There continued to be strong uptake of the support scheme for energy audits (SSEA) in 2023, permitting businesses to identify where energy savings could be made.

The EXEED (Excellence in Energy Efficient Design) certified grant scheme supports organisations with the costs of embedding energy efficient design in their assets, to reduce lifecycle impact with lower energy use and carbon emissions.

The Support Scheme for Energy Audits (SSEA) supports SMEs, in particular, with a €2,000 voucher towards the costs of a professional energy audit.

The Energy Academy is an online learning platform for business to help them reduce their energy costs.

The Accelerated Capital Allowance scheme for energy efficient equipment is a taxation incentive, aimed at encouraging investment in energy efficient products.

The Large Industry Energy Network (LIEN) SEAI hosts a large industry energy network to assist the large energy-using companies, typically those in industry and agriculture using large thermal loads. Best practice guidance is shared among LIEN members on energy efficient design and how best to manage energy performance.

Microgen Support Scheme. The MSS provides support to domestic and non-domestic applicants for renewable installations through SEAI grants. These applicants will also be eligible to avail of the Clean Export Guarantee (CEG) tariff.

The Support Scheme for Renewable Heat (SSRH), administered by the Sustainable Energy Authority of Ireland (SEAI), promotes renewable energy adoption in the heat sector. It provides operational support for new biomass or anaerobic digestion heating systems and grants for renewable heat pumps. The SSRH aims to add 1,300GWh of renewable heat annually and reduce Ireland's greenhouse gas emissions by 5.4 million tonnes of carbon equivalent by 2027, with €300 million allocated from the National Development Plan.

2 Sustainable Energy Authority of Ireland Administration and General Expenses

1. Increased Outturn in 2023:

The additional funding facilitated several critical areas:

- Staffing Increase: SEAI expanded its workforce, allowing for more dedicated professionals to contribute to energy initiatives.
- Salaries and Related Charges: Ensuring competitive compensation for existing and new staff members.
- IT and General Administrative Costs: Strengthening SEAI's technological infrastructure and streamlining administrative processes.

2. Continued Support for Energy Priorities:

- The funding infusion reinforces SEAI's commitment to advancing the Government's energy agenda.
- By maintaining and enhancing SEAI's capacity, the organization remains well-positioned to drive sustainable energy solutions across Ireland.

3. Staffing Allocation:

- SEAI received an allocation to fund an increase in staff, resulting in 235 whole-time equivalents.
- This strategic move aims to bolster SEAI's workforce, enabling them to tackle energy challenges effectively.

4. Underspend Analysis:

- A portion of the total underspend (€2.336 million) can be attributed to Pay and PRSI costs.
- In 2022, SEAI was allocated funding for 135 whole-time equivalents, but the underspend occurred due to delays in onboarding new staff members.
- In summary, this increased funding not only fortifies SEAI's operational capabilities but also underscores its pivotal role in shaping Ireland's sustainable energy landscape. By aligning with the Government's priorities, SEAI continues to drive positive change and contribute to a greener, more resilient future.

3. Energy Efficiency - Retrofitting

The Social Housing Capital Investment Programme spans a range of Exchequer and local authority funded programmes and initiatives, designed to maintain and improve the local authority housing stock of approximately 146,000 units.

Included within this range of programmes is the Energy Efficiency Retrofit Programme which provides funding to local authorities for energy upgrade works to their housing stock, enabling dwellings upgraded to achieve an improved level of energy performance, a reduction in emissions and yield an important fuel poverty dividend for low income households.

A newly enhanced Energy Efficient Retrofit Programme was launched in 2021, as part of the programme for government commitment to retrofit 36,500 local authority owned social homes to a BER rating of B2/ Cost Optimal Equivalent. The Programme focuses on ensuring that the fabric of the home is upgraded and an energy efficient heating system is provided. Works eligible under the Programme include attic/cavity wall insulation or external wall insulation where required, windows and doors replacement where required, heat pump installation and ancillary and associated works, enabling dwellings upgraded to achieve an improved Building Energy Rating of B2 or a cost optimal equivalent resulting in a reduction in emissions and yield an important fuel poverty dividend for low income households.

In 2023, total expenditure reported under the Energy Efficiency subhead was over €70 million which allowed for 2,252 properties to reach a B2/cost optimal level. Another €6.7 million was funded under the Midlands Retrofit Programme to fund a further 193 properties to B2/ cost optimal equivalent.

4. Public Transport Investment

Infrastructure Manager Multi-Annual Contract and Heavy Rail Investment

A total of €281.5 million of Exchequer capital funding was provided to Irish Rail/Iarnród Éireann in 2023 to fund protection and renewal of the national railway system under the Infrastructure Manager Multi-Annual Contract.

The DART+ SouthWest Preliminary Business Case was approved by Cabinet in March 2023. An Oral Hearing for DART+ West was held in October. The Preliminary Business Case for DART+ Coastal North was submitted by the NTA to the Department in December.

Following Government approval in December 2021, a contract was signed for the largest ever rail fleet expansion with potential for up to 750 electric/battery electric carriages under the DART+ Programme. The order was for initial purchase of 95 units (65 battery electric and 30 electric units) with the first of the units entering service in 2025. In December 2022, a second order was placed, for the delivery of a further 90 battery electric train carriages.

The delivery of 41 Inter-City railcar units continued. Work continued on EU Recovery and Resilience Facility funded Cork Commuter Rail project. Phase 1 includes the redevelopment of Kent Station to create a fully connected suburban network, double-tracking of the current single track between Glounthaune and Midleton, and network-wide resignalling. All phase 1 works will be completed in mid-2026.

Work continued on the National Train Control Centre, which will be completed and commissioned in the coming years.

Bus fleet/Bus Connects

BusConnects Dublin consists of infrastructure and ICT improvements along with a bus network redesign. The final network redesign for Dublin, which relates to the proposed new bus routes centred on 9 new 'spines'. The first of these Spines – the H-Spine – launched in June 2021. The second Spine – the C-Spine – launched in November 2021. The roll-out continued in 2022 with the launch of the third and fourth phases – the G-Spine and the Northern Orbital routes. The Southern and Western orbital routes rolled out in 2023.

The first of 100 double deck electric buses entered service in Dublin following charging infrastructure being installed in Summerhill and Phibsboro bus depots.

The Preliminary Business Case for infrastructure investment was approved by Government in Q2 2022, allowing BusConnects to enter the planning system. The planning applications for all Core Bus Corridor schemes were subsequently submitted to An Bord Pleanála. Three schemes have been approved by An Bord Pleanála so far – Clongriffin, Liffey Valley, Ballymun/Finglas.

Following an extensive public consultation process, the NTA published the new BusConnects Cork network in June 2022. The draft network provides an increase of over fifty percent in bus services across the city, to allow more people to gain access to more places quickly. The third round of public consultation in relation to the 11 new Sustainable Transport Corridors in Cork closed in December 2023.

BusConnects Galway will provide a major enhancement to the bus system there. Key elements are currently under development, namely the Cross City Link project and the Dublin Road scheme. The Salmon Weir Pedestrian/Cycling Bridge was officially opened to the public in May 2023. The bus network design was finalised in December 2023 following a public consultation, and it will provide improved services, including in Bearna and Oranmore.

For Limerick, following public consultation, the NTA published the final redesigned bus network in December 2023, which will also result in a better bus service for the city in the years ahead.

Metrolink

Government approval for the Metrolink underground railway Preliminary Business Case at Decision Gate 1 was received in Q3 2022. TII lodged a Railway Order application with An Bord Pleanála on in September 2022. TII appointed a Client Partner, led by Turner & Townsend, to the project in 2023 as procurement preparations advanced.

Light Rail

Luas Finglas: The NTA submitted a Preliminary Business Case for the project at Approval Gate 1 of the Infrastructure Guidelines in 2023.

Cork Light Rail: The Department reviewed a Strategic Assessment Report from the NTA in 2023.

Ticketing and Technology

The main work being funded in 2023 in relation to ticketing / technology relates to Next Generation Ticketing and improved Automatic Vehicle Location technology, both of which are important to improve the overall passenger experience.

5. Public Service Provision Payments (PSPP)

Passenger Numbers and Revenues

2023 saw exceptional growth in usage of public transport services nationally, with patronage exceeding pre-pandemic levels seen in 2019 by the end of the year. Overall, passenger numbers on contracted bus and rail services increased by 60.9 million (+24.4%), with resulting revenues also increasing by €54.9 million when compared to the previous year, to €521.6 million.

Direct Award Contracts

In November, the Authority decided to enter into further direct award contracts with Dublin Bus and Bus Éireann for a five-year period from December 2024, with a provision that any service levels above those in operation during summer 2023 would be competitively tendered at some point in the future.

BusConnects Dublin Area Network Redesign launches

Two phases of the Dublin Area Bus Network Redesign were launched in 2023. Phase 5a (W Orbital routes W4, W61 and W62) launched in June and 5b (Southern Orbital, Radial and Local routes S2, S4, S6, S8, 74, W2, L25, and L55) launched in November. Communications to launch these two phases included local press, local radio, social media, bus shelters, booklet door drops within the vicinity of the new routes and brand ambassador activity.

Competitively Tendered Contracts

Mobilisation progressed on three significant tenders during 2023. The first was for the new W4/W6 routes in Dublin. These services are a key part of the Bus Connects Network Redesign project and launched in June. The second was for the Eastern Coastal Commuter Corridor, currently operated under the Bus Éireann Direct Award Contract as routes 101 & 133. This will enhance connectivity from Co. Louth and Co. Wicklow into Dublin. Services commenced operating under this contract in May.

Emergency Direct Award Contracts

Emergency agreements were put in place for NTA to provide PSO funding for the provision essential bus services, formerly licensed to operate on a commercial basis. This allowed essential bus services which were no longer commercially viable to continue operating - Routes 143 and 144 in Wicklow and Dublin were awarded to Finnegan Bray Limited to begin operations in October 2023.

Network Development

Contracted bus and rail services were regularly revised in 2023 to stimulate growth in public transport use and to respond to changes in demand and the effects on services of traffic congestions. Key network developments in 2023 included:

Town Bus Services in Carlow and Clonmel

Two new town bus services began operation last year. Carlow services launched in August and Clonmel services launched in December, giving more people the option to use public transport daily. The number of passengers using both services has grown substantially. In its first month of operation in December, 14,000 people used the new town service in Clonmel, while 35,000 people are now using the Carlow Town bus service in every four week period since its launch.

TFI Local Link

The ongoing investment in TFI Local Link resulted in several milestones being achieved during 2023. Passenger journeys on all TFI Local Link services totaled 4.35 million for 2023. This was made up of 3.2 million on Regular Rural Services (RRS) and 1.15 million on Demand Responsive Services (DRT). The main factor in the growth of passenger numbers using TFI Local Link services has been successful the roll out of the Connecting Ireland Rural Mobility Programme with 65 new and enhanced Local Link routes introduced during 2023. During 2023, three electric vehicles (EVs) went into service on several routes, with EVs now operating in Galway, Mayo and a route between Louth and Cavan.

Table 4: Payments to public transport operators 2023 (€ million) Of €607.3m recorded expenditure, €527.7m was issued to Operators. The balance, not issued to Operators, broadly relates to ticketing operational costs, the young adult student card, Connecting Ireland, NTA PSO costs and other rural costs.

Operator / Service type	Mode	Contract type	Operational Area or Route	Payment
Iarnród Éireann	Rail	Direct Award	National	€187.2
Dublin Bus	Bus	Direct Award	Dublin	€144.3
Bus Éireann (Direct Award)	Bus	Direct Award	National (excluding Dublin)	€82.1
Rural Transport Services	Bus / Demand Responsive Transport	Various	National	€43.4
Tendered Services	Bus	Tendered	Various	€42.2
Transdev Dublin Light Rail Limited	Light Rail (Luas)	Tendered	Dublin Metropolitan	€28.5
Total				€527.7

6. Active Travel

This funding is allocated for the delivery of Active Travel Infrastructure and behavioural change programmes under the remit of the Department of Transport.

The vast majority of this funding is allocated to the National Transport Authority's Active Travel Infrastructure Programme. This Programme aims to deliver walking and cycling projects in all 31 local authorities, including projects under the Safe Routes to School Programme. The funding also covers around 240 staff dedicated to Active Travel delivery across the local authorities.

In 2023, €290 million was allocated to Active Travel Infrastructure. Actual spend ended up at around €340 million. The initial allocation was supplemented by funding transferred from Public Transport due to an underspend under that subhead.

Major projects progressed to completion in 2023 include the Bilberry to City Centre route in Waterford, the Salmon Weir Bridge in Galway, McCurtain Street and the Vernon Mount Bridge in Cork, further phases of the Dodder Greenway, Rock Road, Wyattville Road and Clonskeagh Road in Dublin and numerous smaller projects up and down the country. Continued progress was made on major projects such as the Clontarf to City Centre route (due to be completed in 2024) and the Waterford Sustainable Transport Bridge. Projects started in 2023 include the Royal Canal Phase 3, Harry Reynolds Bridge in Balbriggan, the Broadmeadow Greenway and the D24 Neighbourhood in Tallaght.



Salmon Weir Pedestrian and Cycle Bridge, Galway

Significant progress was also made on the Safe Routes to School Programme, with delivery plans complete for all Round 1 schools and well advanced with Round 2 schools. Approximately 50 front of school treatments were in place by the end of 2023, with a significant increase in completions expected in 2024. In addition, cycle/scooter spaces have been provided at over 600 schools to date as part of the SRTS programme.

In addition to the Active Travel Infrastructure Programme, approximately €4.1m was spent on various ongoing behavioural change and training programmes including CycleRight primary school training, the NTA's Smarter Travel Programme, An Taisce's Green Schools Travel Programme, Community Bike Rides and the Pilot Bike Upcycling Initiative. An additional €3.9m was invested in cross-border projects under the EU INTERREG Programme, including Carlingford Lough Greenway and the North-West Greenway Network. Both of these projects are due to be completed in mid-2024.

7. Carbon Reduction

Zero Emission Vehicles Ireland (ZEVI) has been established as a dedicated Office within the Department of Transport, charged with supporting consumers, the public sector, and businesses to continue to make the switch to zero emission vehicles. The Office leads on the delivery of the Ireland's ambitious targets under the Climate Action Plan 2023 to have an expected 30% of our private car fleet switched to electric by 2030. As of end December 2023, there were 110,342 electric vehicles registered in Ireland. This is in line with the 2022 CAP pathway to achieve 175,000 EV cars on the road by 2025.

ZEVI manages the EV Grants and Infrastructure Programme within the Department of Transport. The main lines of expenditure were the electric vehicle purchase grant, the electric small public service vehicle scheme and the home and apartments charger grants.

8. Greenways

The vast majority of this funding is allocated to the Transport Infrastructure Ireland's National and Regional Greenways programme. This Programme aimed to progress and deliver Greenway infrastructure across 26 local authorities in 2023 with 54km of Greenways completed. Notable achievements in 2023 included the following:

- Section opening on the South East Greenway
- Section opening on the Great Wester Greenway
- Bridge opening across River Shannon (Dublin to Galway Greenway)
- Sections completed on the Boyne Valley to Lakelands Greenway
- Sections completed on the Connemara Greenway
- Sections completed on the Grand Canal Greenway (Offaly and Kildare)
- Enabling works commenced on the South Kerry Greenway
- Construction continued on the Midleton to Youghal Greenway
- Construction continued on the North West Greenway
- Construction continued on the Carlingford Lough Greenway



Active Travel Bridge, Athlone, County Westmeath

9. Low Emission Vehicle (LEV) Incentivisation Tax foregone 25.4 million

There are a number of taxation elements that incentivise LEV adoption. As there is considerable detail behind each element, they are summarized below.

- Vehicle Registration Tax Relief – Up to €5,000 for new battery-electric vehicles (BEVs). This measure has been extended to 31/12/25.
- Accelerated Capital Allowance (ACA) – BEV/PHEVs and their associated recharging infrastructure qualify under the ACA scheme. This Scheme enables businesses to identify and buy the most energy efficient equipment including electric charging infrastructure and write down the cost of such equipment in the year of purchase rather than over the traditional 8 years.
- 0% Benefit-in-Kind (BIK) – BEVs qualify for a 0% Benefit-in-Kind rate up to €50,000 without mileage conditions. This will be extended out to 2025 with a tapering effect on the vehicle value. This measure has taken effect from 2023. For BIK purposes, the original market value of an electric vehicle will be reduced by €35,000 for 2023; €20,000 for 2024; and €10,000 for 2025.
- Low Motor Tax – BEVs qualify for the lowest tax band of motor tax at €120 per annum, while a PHEV is typically taxed at circa €170 per annum.

10. Flood Risk Management (OPW)

The Office of Public Works (OPW) has responsibility for leading and coordinating the whole of Government implementation of the National Flood Policy, which involves the identification of flood risk and the development of a planned programme of feasible flood relief works combined with a greater emphasis on non-structural flood risk management measures.

This expenditure supports investment in major flood works. These funds will provide for the ongoing development of structural and non-structural measures to mitigate the impact of flooding on society, households and businesses.

Capital Projects Overview

- The OPW has completed 55 flood relief schemes since 1995 which are providing protection to over 13,000 properties and an economic benefit to the State in damages and losses avoided estimated to be in the region of €2 billion.
- Since 2018, as part of a phased approach to scheme delivery, the OPW has trebled the number of schemes at design and construction to some 100 schemes at this time.
- Capital investment in flooding projects, associated flood risk management measures and programmes was over €59m in 2023.

2023 Expenditure Summary

- Over €20m (35%) of the total expenditure in 2023 was incurred by six schemes that were under construction during this period, including the Athlone Flood Relief Scheme (€6.4m), Glashaboy Flood Relief Scheme (€5.4m) and the Morell River Flood Management Scheme (€3.8m).
- In addition, other flood relief schemes at various stages of design and planning incurred expenditure of approximately €29.5m (50%).
- The OPW continued to fund Local Authorities under the Minor Flood Mitigation Works and Coastal Protection Scheme, with approximately €2.2m (4%) expended under the Scheme in 2023. Since 2009, 690 projects have been completed at a cost of approximately €46.4m to 2023. These projects provide flood protection to over 7,900 properties. Approximately two-thirds of these properties are outside those areas to be protected by the major flood relief schemes; the Scheme plays a valuable role in broadening the range of properties that benefit from flood protection across Ireland.

11. Climate Initiatives

The National Dialogue on Climate Action delivered a number of initiatives in 2023 including the Climate Conversations 2023 which ran for eight weeks from June-September. More than 4,000 people took part in the online survey. We also held 12 workshops with groups who are vulnerable to the transition to carbon neutrality, or who are not yet taking part in the climate debate. We did 18 in-depth interviews with people across society who have taken on new and effective climate action projects.

In October 2023, the National Dialogue on Climate Action (NDCA) team held a webinar where the initial results of this year's Climate Conversations (CC23) were presented by Ipsos. The findings suggest that:

- Awareness of climate change is high, most participants view it as important and are worried about it, but also feel that it is happening somewhere else, to someone else, and lies in the future
- Many feel that taking individual climate action is for people with money living in urban centres
- The language used in discussions on climate is too complex and needs to be made clearer
- People need help in making specific plans to take climate action and these plans are different for different sectors and different populations
- Engaging communities and networks is the most effective way to support people more broadly in taking climate action

A copy of the presentation from the webinar is available for download [here](#).

Full reports from the Climate Conversations 2022 was also published online. The findings of these Conversations are used to inform policy through the annual Climate Action Plan.

DECC hosted the second National Youth Assembly on Climate with the Department of Children, Equality, Disability, Integration and Youth in March 2023. 50 youth delegates from across Ireland took part and gave recommendations on what they would like to see implemented as Government policy. The recommendations focused on three key areas, sustainable transport, the circular economy and communication, engagement, and climate literacy. The summary report from the day is available to view on [Gov.ie](https://www.gov.ie).

Two National Climate Stakeholder Forums were held in 2023 with over 300 attendees across the Forums. A wide range of stakeholders from policy makers, interest groups, agencies, local authorities, the eNGO sector, community and voluntary groups, and academics participated in each Forum with the second of the two focusing on how engagement with people across the country can be enhanced to support taking climate action.

12. Forestry and Bio-energy

The new Forestry Programme 2023-2027 (FP23) was launched in September 2023, and the Interim Afforestation Scheme (Via General De Minimis) bridged the gap between the 2014-2020 programme and FP23. Some €63 million was paid out in 2023, servicing new and existing Afforestation Grants and premia liabilities. There was a significant increase in premiums for planting trees in these new Schemes, ranging from between 46% to 66%, along with a longer term of 20 years for farmers. Grant rates for forest establishment were also showing increases of around 20%. It is intended that these substantial increases will incentivise behavioural change and re-engage landowners and farmers with forestry.

DAFM refocused delivery on the Forestry Support Schemes in 2023 in the new Forestry Programme. These include supports for Sustainable Forest Management, Climate Resilient Reforestation, Reconstitution, and Infrastructure & Technology Investments (Forest Roads). The support Schemes also included advice, training, and promotional activities for the Forestry Programme 2023. Just over €8 million was spent on these support Schemes in 2023.

Some €2.7 million was spent on Forestry Development, the National Forest Inventory and other supports such as payments for Afforestation Environmental Assessments, which are necessary for issuing Forestry Licences which involved more ecological input.

13. Environmental Protection Agency – Administrative expenses

Funding is provided to support the operation of the Environmental Protection Agency (EPA). The EPA is an independent public body established under the Environmental Protection Agency Act, 1992. It has a wide variety of functions relating to the protection of Ireland's environment, ranging from the enforcement of environmental law, monitoring, analysing and reporting on the environment, waste management and radiological protection. The EPA funds environmental research to identify pressures, inform policy and provide solutions in the areas of climate, water and sustainability; and new research projects into water, climate & air and environmental sustainability.

14. National Heritage (National Parks and Wildlife Service)

The National Parks & Wildlife Service (NPWS) of the Department of Housing, Local Government and Heritage (DHLGH) is responsible for the conservation of nature and biodiversity in Ireland.

The overarching strategy for nature conservation is [Ireland's 4th National Biodiversity Action Plan 2023-2030 \(NBAP\)](#), approved by Government in October 2023. The 4th NBAP is comprised of a suite of Objectives, Targets and Actions that aims to achieve Ireland's Vision for Biodiversity in 2050 that "biodiversity in Ireland is valued, conserved, restored and sustainably used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people". The 4th NBAP adopts a 'whole of Government, whole of society' approach, building upon unprecedented levels of public awareness of biodiversity loss at a national and global level.

DHLGH, alongside the Heritage Council, provide funding for the National Biodiversity Data Centre. The National Biodiversity Data Centre is a national centre for the collection, collation, management, analysis and dissemination of data on Ireland's biological diversity. Biodiversity data are a key requirement for understanding our natural surroundings, for tracking change in our environment and for gaining a greater insight on how we benefit from, and impact upon, the ecosystem goods and services provided by biological diversity and in 2022 held 17,400 species and almost 6 million records.

15. Waste Management Programmes

Landfill remediation

Three landfill sites were remediated in 2023. Funding was drawn down in respect of 82 sites in 24 Local Authorities. This funding is to progress legacy landfill sites through 3 stages of environmental risk assessment, regularisation through the application for Certificate of Authorisation (CoA) to the EPA and the final remediation works, as required. In total, there was draw down of €8.14m for landfill remediation with €2.96m (approx.) of this being allocated to the remediation of the site at Kerdiffstown which is in final works phase. The official opening of Kerdiffstown Park is expected in 2024.

The landfill remediation grant programme makes provision of funding to Local Authorities in meeting their obligations to identify, risk assess and remediate legacy landfills under Section 22 of the Waste Management Act, 1996 (amended) and the policy roadmap for delivery as set out in the 3 regional waste management plans 2015 - 2021. The policy roadmap was renewed in the publication of the National Waste Management Plan for a Circular Economy 2024 - 2030.

Remediation of Diesel Laundering Sites

Funding is provided to assist local authorities in carrying out their role as competent authorities under waste legislation to ensure that any waste generated and left abandoned by diesel launderers is disposed of without endangering human health and without harming the environment. Funding of €400,000 was allocated to two local authorities in 2023 to fund the clean-up and removal of diesel sludge relating to incidences of illegal diesel laundering.

Remediation of EPR waste stream stockpiles posing an environmental threat

Ireland uses the Extended Producer Responsibility (EPR) model for dealing with a number of waste streams and the approved compliance schemes continue to operate successfully with each approved compliance scheme operating on a not-for-profit basis.

Changes to markets and economics have left some EPR streams with a negative or very low value waste product. The non-compliance by a minority of actors outside of the compliance schemes in these streams has resulted in the creation of sites of concern which pose an environmental threat. An effective system of waste management is critical to the welfare of the environment and society in general and when private actors fail to meet their obligations, local authorities must use the appropriate enforcement powers. Enforcement action on these sites was deployed to secure compliance with the law and to ensure the protection of our natural environment. The State have committed to fund the remediation of these sites.

The WERLAs identified six sites of concern, five sites containing tyre stockpiles and one site containing farm plastic stockpiles. To date, five sites have been completely remediated and one site has yet to be commenced (one fully completed during 2021, 3 further sites commenced in 2021 and subsequently completed during 2022 and one site completed in 2023). A total of €3.6 million has been spent on these projects to date.

16. International Climate Change Commitments

Under the heading 'International Climate Change Commitments' the Minister was responsible for the allocation of €26.5 million in financial support for international climate action. The Department prioritises its financial support to multilateral climate funds under the UNFCCC and will continue this approach towards achieving Ireland's 2025 climate finance target.

The Green Climate Fund (GCF) was established under the auspices of the UNFCCC in 2010 to support the efforts of developing countries to respond to the challenge of climate change. The GCF helps developing countries limit or reduce their greenhouse gas emissions and adapt to climate change. For the first replenishment of the GCF (GCF-1), Ireland pledged €16 million over the period 2020 to 2023, equating to a €4 million annual contribution. The final contribution to GCF-1 was paid in 2023. At the pledging conference for the second replenishment of the GCF (GCF-2) in October 2023, Ireland pledged €40 million to GCF-2 to be delivered over the four years from 2024-2027. Ireland provided €5 million to GCF-2 in 2023. This equated to an overall contribution of €9 million to the GCF in 2023.

The Global Environment Facility (GEF) is an established funding mechanism to provide new and additional grant and concessional funding to developing countries to meet the agreed incremental costs of measures to achieve global environmental benefit. Ireland pledged €10 million to the eighth replenishment of the GEF provided in annual instalments of €2.5 million over a four-year period of 2022-2025.

The Adaptation Fund finance projects and programmes that help vulnerable communities in developing countries adapt to climate change. Ireland has pledged to provide €6 million per year to the Adaptation Fund between 2023-2024.

The Climate and Clean Air Coalition Trust Fund is used to build capacity, enable peer-to-peer engagement and support leadership at a national level for Parties who need it for climate pollutants including methane. €1 million was provided in 2023.

IEA Clean Energy Transition Programme aims to accelerate global clean energy transitions. The programme provides independent, cutting-edge support to governments whose energy policies will significantly influence the prospect for - and the speed of - the global transition towards sustainable energy production and use. Ireland provided €500,000 in 2023.

Action for Climate Empowerment (ACE) is a term adopted by UNFCCC which involves six elements – education, training, public awareness, public participation, access to information, and international cooperation, to improve the effectiveness of climate action. Ireland provided a contribution of €200,000 to UNFCCC in 2023 to support work in this area.

Ireland provided €200,000 to UNEP to support work under the Intergovernmental Negotiating Committee process to implement a legally binding instrument on plastic pollution. The Special Climate Change Fund (SCCF) is a fund managed and operated by the GEF and is open to all vulnerable developing countries to support a wide range of adaptation activities for climate action. DECC provided €1 million to the SCCF in 2023.

Loss and damage remain key priorities for Ireland. At COP27 in 2022 Ireland pledged a contribution of €10 million to the joint V20/G7 initiative Global Shield against Climate Risks. DECC and Irish Aid will each provide €5 million. The Global Shield Solutions Platform is one of the three financial vehicles under the Global Shield and has been determined to be most in line with Irish priorities. €5 million was provided in 2023.

The Global Methane Pledge is a voluntary agreement by Parties to take voluntary actions to contribute to a collective effort to reduce global methane emissions at least 30 percent from 2020 levels by 2030. Ireland provided €1 million to this initiative in 2023.

17. Environmental and Climate Research

The Climate Action Modelling Group (CAMG) is a continuation of the Technical Research and Modelling (TRAM) Group which was established by Government decision in 2015. The Group provides technical research and modelling to support and inform the development and management of national climate and energy policy.

In 2022, the Department of the Environment, Climate and Communication (DECC) identified the need to ensure that the work of the CAMG continued out to 2030 to, inter alia, support the implementation of the Carbon Budgets and annual iterations of Climate Action Plan. DECC also identified the need to expand the scope of CAMG's work with the procurement of an additional contract for modelling services with a focus on Agriculture and Land Use, Land Use Change and Forestry (LULUCF).

Following a procurement process the following research bodies have been engaged as the CAMG partners for 5-year periods, with potential for a 2-year extension.

- University College Cork (UCC) - Energy Systems Modelling
- University College Dublin (UCD) - Electricity Systems Modelling
- University of Galway (UOG) - Agriculture and LULUCF
- EnvEcon AP Limited - Air Quality and Climate Modelling
- The Economic and Social Research Institute (ESRI) - Economic and Climate Modelling

18. Peatlands Restoration and Management

The Cessation of Turf Cutting Compensation Scheme (CTCCS) was established in 2011 to provide a long term compensation scheme for domestic turf cutters affected by the cessation of turf cutting on designated raised bog special areas of conservation and was extended in 2014 to include raised bog natural heritage areas.

Much of Ireland's protected peatlands are in private ownership, though considerable areas are in the control or ownership of the state. The CTCCS is part of a suite of measures which facilitates the restoration programme for protected raised bogs, by compensating domestic turf cutters who have ceased to cut turf from these bogs.

This scheme is applicable to turf cutters who fulfil the qualifying criteria of the scheme and who have ceased cutting turf for domestic purposes on the raised bog special areas of conservation and natural heritage areas encompassed by the scheme. It comprises; a payment of €1,500 per annum, index-linked, for 15 years, or relocation, where feasible, to a non-designated bog, together with once off payment of €500 on the signing of a legal agreement with the Minister under the scheme. 2,291 applicants received payments in 2023 under the CTCCS. There may be other affected turf cutters, who may qualify under the scheme, who may still apply.

The Protected Raised Bog Restoration Incentive Scheme (PRBRIS) was established in 2021. It was originally piloted as part of an EU funded LIFE pilot project. The scheme is a financial incentive scheme to enable conservation works on protected raised bogs. It is open to peatlands property owners and turbary right holders whose lands are included as part of a restoration scheme, or where access is required for restoration works. In 2023 incentive payments were processed enabling conservation works on 67 hectares of protected raised bog.

19. Energy Research Programmes

The Sustainable Energy Authority of Ireland

The Sustainable Energy Authority of Ireland (SEAI) plays a pivotal role in driving Ireland's transition toward a cleaner and more secure energy future. The SEAI RD&D Funding Programme is a cornerstone initiative that fuels innovation, research, and development in the energy sector.

1. Program Objectives:

The SEAI RD&D Funding Programme focuses on:

- Innovative Energy Research: Supporting ground-breaking projects that explore novel solutions, technologies, and approaches.
- Transition Acceleration: Removing barriers and accelerating the adoption of sustainable energy practices.
- Capacity Building: Equipping professionals with the skills and knowledge needed to propel Ireland's energy transition.

2. 2023 Funding Highlights:

- In 2023, the programme allocated funding to 40 new innovative energy RD&D projects. These projects collectively received approximately €19.8 million over a 4-year term.
- These investments are crucial for driving research, testing, and implementation of energy solutions that align with national priorities.

3. Project Portfolio:

- As of the end of 2023, the SEAI RD&D programme was actively funding 143 live projects.
- Cumulatively, between 2018 and 2023, a total of 242 projects have received SEAI funding.
- These projects span various domains, from renewable energy sources to energy efficiency and grid optimization.

Collaborative Research Centres:

International Energy Research Centre (IERC):

- Hosted by the Tyndall National Institute in Cork City, the IERC is an industry-focused research centre.
- It serves as a hub for collaborative efforts between academia, industry, and policymakers.
- The IERC's mission is to drive innovation, develop cutting-edge technologies, and address energy challenges.
- Final payments related to the IERC agreement were successfully processed in 2023.

Energy Policy Research Centre (EPRC):

- Founded in 1991, the EPRC is a dedicated research program.
- Initially funded by what was then the Department of Communications, Climate Action, and Environment (DCENR).
- In recent years, the DECC has consistently contributed €200,000 annually to support the EPRC's work.
- Notably, an additional €100,000 was approved in 2023, specifically earmarked for research on energy poverty.
- The EPRC's efforts contribute valuable insights to inform energy policy and drive positive change.

20. Capital Expenditure by Uisce Éireann on Domestic Water Services

Uisce Éireann continues to support the achievement of Government policy, including the National Development Plan, Housing for All, the Water Services Policy Statement and the Climate Action Plan. During 2023, Uisce Éireann prioritised the investment of €1.289bn. This level of investment enables Uisce Éireann to make necessary, multi-generational improvements to water and wastewater infrastructure. It is targeted at enhancing health and quality of life, protecting our environment, benefiting communities and is critical for growth and development across Ireland.

Uisce Éireann Projects 2023

Ringsend

Uisce Éireann is investing over €500 million to upgrade the Ringsend Wastewater Treatment Plant. Works to provide the infrastructure to achieve compliance with the Urban Wastewater Treatment Directive for a population equivalent of 2.1 million were completed as planned at the end of 2023. When all the proposed works are complete, the Ringsend Wastewater Treatment Plant will be able to treat wastewater for up to 2.4 million population equivalent while meeting the required standards.

Athlone Main Drainage Scheme

Uisce Éireann, working in partnership with Westmeath County Council, has commenced a €114 million upgrade to the sewer network in Athlone.

The project involves the construction of new pumping stations in Golden Island and Coosan West, and the construction of almost 3km of sewer network. It will also involve the removal of six existing overflows and the construction of two new overflows designed to Uisce Éireann standards, as well as

connecting the new and existing sewer networks together.

When complete, this project will reduce the risk of sewer flooding in Athlone and address non-compliant sewer overflows into the River Shannon. It will also improve the capacity of the sewer network, allowing for current and future population growth. The project commenced on site in early 2023.

Arklow Sewerage Scheme

Uisce Éireann is progressing works as part of the Arklow waste water treatment plant and Network project, representing an investment of €139 million in ending the discharge of raw sewerage. Works to the sewer network (along the North and South Quays) are approximately 90% complete. Network works are due to be completed in 2024, with some reinstatement works in the town to be carried out, but works will mostly be confined to the new Wastewater Treatment Plant site. Tunnelling works have been completed and pipelaying works, manhole conversions and sheet piling are currently ongoing along the South Quay. Works are also ongoing on the storm water overflow. Once complete, this project will bring benefits to Arklow in terms of protecting the environment, facilitating economic development, and providing for a growing population.

21. Rural Water Programme

The Rural Water Programme provides the necessary funding to improve the quality, quantity and reliability of the water services provided to rural dwellers where public Uisce Éireann water services are not available.

This is achieved through capital investment and support through funding measures, under a multi-annual programme, which are aimed at sustainable outcomes by:

- helping rural water supplies to achieve wholesome and clean water that is compliant with the Drinking Water Regulations,
- funding water conservation and supporting good practices to contribute to reduce energy and consumables costs,
- allowing water quality deficient group water schemes to be taken in charge by Uisce Éireann ensuring greater economies of scale that is safe and reliable,
- developing more efficient piped water supplies and central waste water collection systems through expansion of the public network,
- supporting repair/replacement of defective domestic wells and domestic waste water treatment systems (septic tanks) to achieve wholesome and clean drinking water and minimising risks to the environment.

Case Studies of Allocations

A. Salmon Weir Bridge:

The €10 million Salmon Weir Bridge project is a new pedestrian and Cycle Bridge located between Gaol Road and Newtownsmith in Galway City Centre and crosses the Lower River Corrib adjacent to the existing Salmon Weir Bridge. The existing Salmon Weir Bridge is constrained in width and does not satisfactorily cater for pedestrians and cyclists.

In tandem with the development of this new pedestrian and cycling bridge, it is intended, under the Cross City Link, to restrict vehicular use of the existing bridge to public transport only. This prioritisation forms a key component of the BusConnects Galway programme.



Photo image of the new bridge

A non-statutory public consultation process for the bridge was undertaken over the summer period in 2020. The feedback from that consultation was evaluated and the finalised project was submitted to An Bord Pleanála in November 2020 for determination under the Appropriate Assessment process set out in section 177AE of the Planning and Development Act 2000. An Bord Pleanála granted approval to Galway City Council to proceed with plans for a new pedestrian and cycle bridge parallel to the existing Salmon Weir Bridge in August 2021.

Following a tender process a contractor was appointed in March 2022 to construct the new pedestrian and cycle bridge. In a significant milestone for the project, the 55m single-piece metal main frame of the new Pedestrian and Cycling Bridge was installed overnight in December 2022.

The main frame comprises a singular steel spine beam with cantilever transverse beams supporting the bridge decking. The main span bridge width varies from 4.5m at its narrowest to 8.5m at midspan. The 13.5m and 18.5m approach spans are steel beam and reinforced concrete composite

construction and span the Mill Race and Waterside Canal respectively. The bridge substructure is reinforced concrete construction, founded on sleeved reinforced concrete bored cast in place piles at the abutments and spread footings founded on and anchored to rock at the piers.

The bridge was fabricated offsite and delivered to site in sections. It was then assembled in the cathedral carpark adjacent to the site in November 2022.

The bridge was opened during the summer of 2023.

In addition to the Salmon Weir Bridge, Galway City Council are also progressing the design development of a new 55m cantilever bridge on the south side of the existing Wolfstone Bridge. The existing footpath on the bridge is constrained in width and does not satisfactorily cater for pedestrians. Part 8 was approved in September 2022 for the scheme.



Main Span assembled in the cathedral carpark - November 2022



Main Span been swung into place - December 2022



Main Span installed - December 2022



Planning Image of the Wolfstone Pedestrian Bridge

Construction commenced on the bridge in early 2024 following the tendering phase for the Contractor.

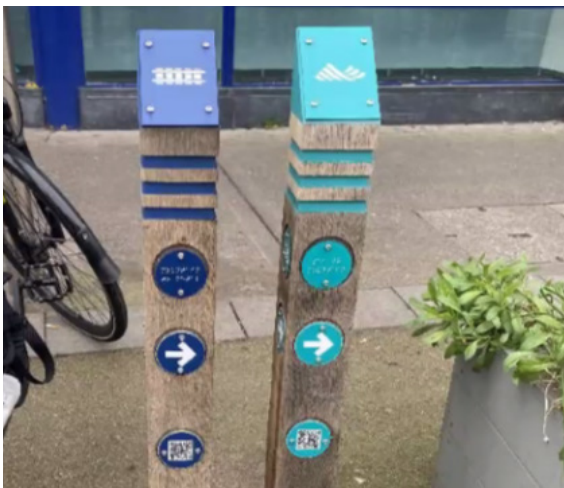
Plans have also been progressed by Galway City Council to develop a new pedestrian and cycling bridge spanning the River Corrib using the existing pillars of the old Clifden Railway Bridge. The proposed new Clifden Railway Bridge will provide a direct connection between the University of Galway and the Woodquay area of the city. Design development for this bridge will be on-going over the coming years.

B. Sea to Mountains Active School Travel Route

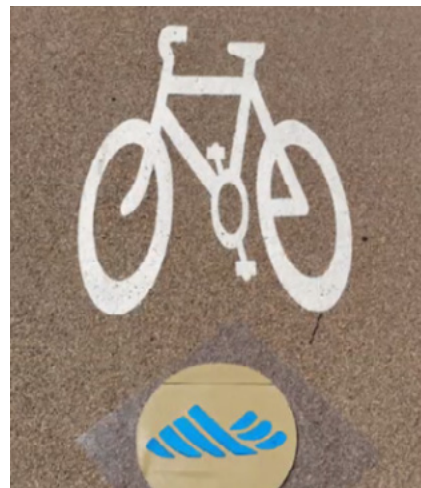
In 2022 Dun Laoghaire Rathdown County Council (DLR) has created a quietway network linking several schools located between Blackrock and Marley Park, known as the Sea To Mountains Route. The route makes use of existing quiet residential streets and parks, with high quality connections where it meets busy roads. On some roads modal filters were introduced to reduce the amount of traffic using the road, providing a safer and more attractive environment for walking and cycling. Along with a similar route, Mountains to Metals, this was largest consultation process undertaken to date in the local authority and resulted in over 6,400 submissions being made, with 62% supporting the project.

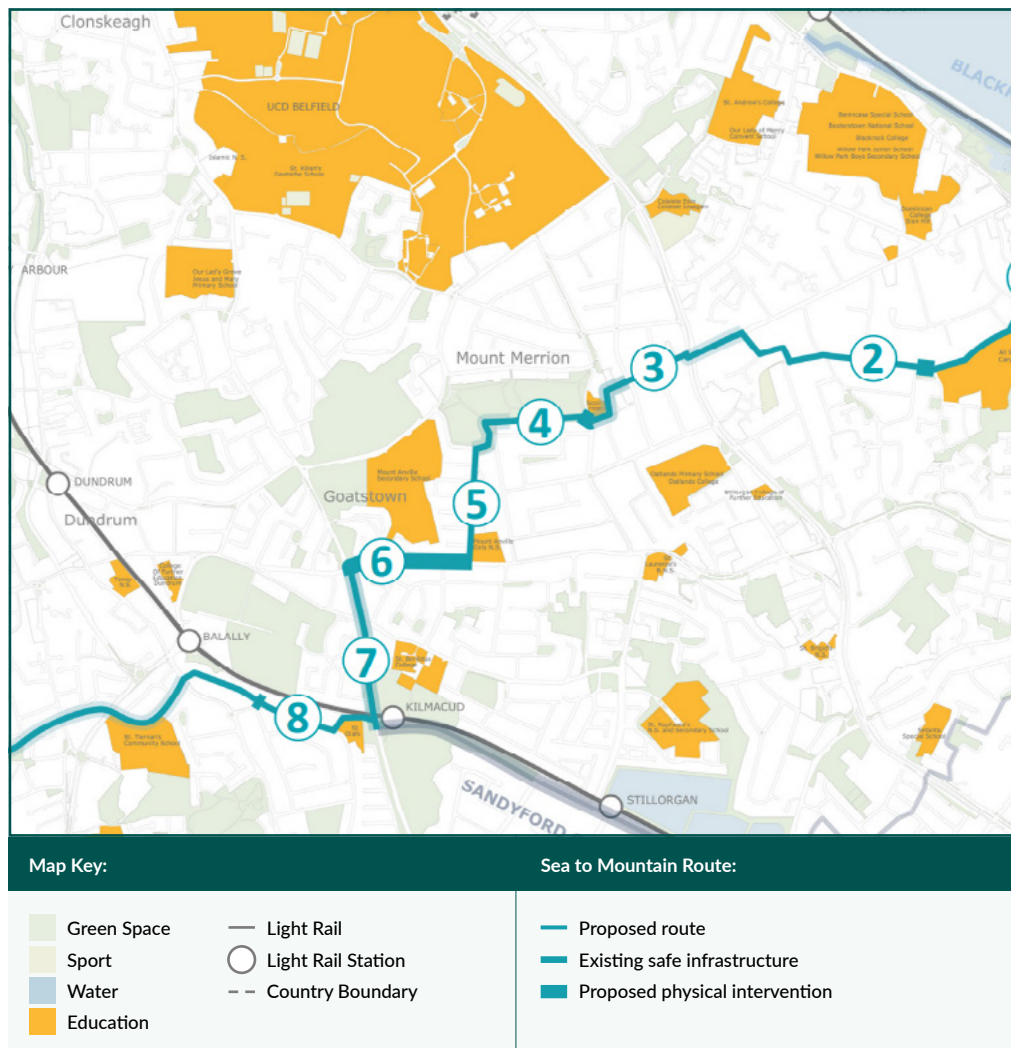


Protected Junction Drummartin Road



Wayfinding on Quiet Streets





The Sea to Mountains route comprised:

- 3.6km of Quietways i.e., signed cycle routes on low-trafficked and low speed roads;
- 1.2 km of traffic calming measures were implemented along the Quietway's to manage traffic speeds including raised tables and junction tightening measures;
- 1.3 km of new segregated cycle tracks were also constructed on Lower Kilmacud Road. This section includes continuous footpaths and cycle tracks at side road junctions to prioritise walking and cycling. An innovative "protected" junction layout was also implemented at the junction of Lower Kilmacud Road/Drummartin Road/Eden Park Road which provides safe cycle facilities through the junction whilst maintaining segregation between all modes.
- 4 new modal filters were also implemented to manage traffic volumes in residential areas whilst maintaining direct routes for active travel modes. The quietway's link up to a number of existing off-road walking/cycling routes through greenway and parks to form a continuous end-to-end route.

An example of the high quality connection can be seen along the Lower Kilmacud Road which has 500m of segregated cycle track on both sides of the road and one of the first Dutch style junctions in the country at its junction with Eden Park Road. This new style junction has operated well since its completion in the middle of 2022. The project included a focus on public realm as a whole (planting, additional seating, incidental play etc.) which really engaged the public and helped provide additional benefits beyond just the mobility changes.

The project also include unique directional guidance techniques such as the provision of wayfinding "dots" and "posts" along the various routes. This is essential to its success as the routes need to be easy to follow as they do not follow the main routes. The wayfinding markers are also provided with braille markers and QR codes.

Total Cost over all years €2.14M



@Google Streetview 2019

@Google Streetview 2022



Riailas na hÉireann
Government of Ireland