

Irish Sovereign Green Bond

Eligible Green Projects Impact Report 2023



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Cover page:

- 1. High speed testing of the new **DART+ train** fleet
- View of completed River Mall (Templemore) flood relief defences and infrastructure
- 3. Credit: "Uisce Eireann



Introduction and Summary

This is the sixth eligible green projects impact report issued in accordance with the Irish Sovereign Green Bonds ("ISGB") Framework. It details the environmental impact measures connected to the 2023 Allocation Report.

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 as with standard government bonds. Amounts raised through the sale of ISGBs are allocated against Eligible Green Projects which generate a positive environmental benefit.

€521 million was allocated to Eligible Green Projects from 2023 (see Appendix 1), using proceeds generated in 2024.

In the 2023 Allocation Report, environmental impact indicators were included across the six categories eligible for allocation:

- 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

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 follows¹:

- 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 (NTMA)

¹ Government Departments and State bodies referenced in this report are as they were organised in May 2025 when this report was drafted.

Eligible Green Projects Impact Report Year End 2023

The purpose of impact reporting is to assist investors in ISGBs with a better understanding of the possible environmental impacts of the Eligible Green Projects. A number of key impact indicators are provided and, where possible, quantified. Eligible Green Projects received a 15% allocation against the associated expenditure. As impact indicators are only available at a programme level, a total green expenditure figure is given alongside the allocation figures, and the allocation percentage (15%) is also provided.

An important consideration in the estimation of impact indicators is the underlying assumptions. While technical experts aim to make sound and conservative assumptions that are reasonable based on the information available at the time, the actual environmental impact of the projects may diverge from the impacts as quantified in the tables².

In some cases quantitative indicators were unavailable; therefore qualitative data has been included to demonstrate other valuable impacts. In addition, some programmes also provide social benefits as well as climate related benefits. This report focuses only on the environmental impacts.

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.

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-2025-Final.pdf

² Harmonized Framework for Impact Reporting. The Green Bond Principles. ICMA. June 2019. https://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/June-2019/Handbook-Harmonized-Framework-for-Impact-Reporting-WEB-100619.pdf

Climate Change Adaptation

10.4

Environmental Objectives: Climate Change Adaptation



Project/ Programme/ Scheme	Green Expenditure (€ Million)	ISGB Proceeds Allocation including adjustments (€ Million)	Allocation Percentage from ISGB Proceeds	Impact l	ndicator	
				No. of Properties Protected on completion	8,913	38% of the total capital expenditure of €59.2m on flood risk management in 2023 related to expenditure on the flood relief projects listed in the following table. These projects were at different stages of implementation during 2023 – either substantially complete, at construction or at design development. As primary indicators of the positive environmental impacts of those projects and of the benefit of the projects to
Flood Risk Management (OPW)	59.2	9.0	15%	Damages/Losses Avoided on completion (€ Million)	849	the communities affected, the table gives information on the numbers of properties to be protected and the losses and damages avoided on completion of the projects. Floodinfo.ie Please see table below for detailed information
Climate Initiatives	9.1	1.4	15%	Number of reports published	6	NDCA publications: Climate Conversations 2023 Report* National Youth Assembly on Climate Report Climate Change in the Irish Mind Behavioural Research * ESRI - Encouraging Cooperation in Climate Collective Action Problems UCD - Gap Analysis on Behavioural Research Related to Climate Policy and Interventions DCU - A Review of Climate Change Attitudes Using a Person-Centred Framework
Total Allocated	2023 to Climate	10.4				

Figures may not total due to rounding

Change Adaptation

Project	Current Status	No of Properties Protected on Completion	Damage/Losses Avoided on Completion (€ Million)
Ashbourne	Substantially completed	49	5
Athlone FRS	Under construction	554	48
Bandon FRS	Substantially completed	392	33
Claregalway	Substantially completed	80	11
Clonakilty	Substantially completed	296	34
Douglas/Togher	Substantially completed	221	35
<u>Dunkellin</u>	Substantially completed	23	9
Ennis Lower	Substantially completed	1,274	153
Ennis South	Substantially completed	126	5
Enniscorthy	At scheme development	326	52
Kings Island (Limerick)	Detailed design	528	126
River Dodder (Dublin)	Tidal phase completed and Fluvial phase under construction	2,493	70
River Lee (Cork city)	At scheme development	2,100	185
Morell	Under construction	30	20
Skibbereen	Substantially completed	312	36
Templemore FRS	Under construction	109	27
Total		8,913	849

Sustainable Development Goals



Sustainable Water and Wastewater Management

Environmental Objectives: Climate Change Adaptation/Biodiversity/ Natural Resource Conservation/Pollution Prevention and Control

outputs and outcomes. This yielded benefits to the customer that

had not previously been reported. These are included in the 2023 figures

Project/ Programme/ Scheme	Green Expenditure (€ Million)	ISGB Proceeds Allocation (€ Million)	Allocation Percentage from ISGB Proceeds	Impact Indicator		Other impact indicators and additional Information						
Rural water	61.6	9.4	159/	Total no. of Private Wells (new and upgraded)	3,577	No. of Operational Supports to Private Group Water Schemes: 496						
programme	01.0	9.4	9.4	15%	9.4 15%	Total no. of Septic Tanks (upgraded)	194	No. of Operational Supports to Public Group Water Schemes: 140				
		440.4	24 4404 4594	0.4 149.1 15						New and upgraded water treatment plants	9	
Capital Expenditure provided to	0404						0.4	Length of water main laid - new and rehabilitated (Km total)	512			
Irish Water for domestic services	969.6	148.1	15%	New and upgraded wastewater treatment plants	42							
						Length of sewer laid-New and rehabilitated (km total)	122					
Total Alloca	ted 2023 to		Note: In 2023	3 we undertook a continuous improvement in	nitiative to consistently capture							

Figures may not total due to rounding

Sustainable Water and

Wastewater Management

157.5

Environmentally SustainableManagement of Living

Sustainable Development Goals







Environmental Objectives: Pollution Prevention and Control/Climate Change Mitigation/Natural Resource Conservation/Biodiversity

Project/ Programme/ Scheme	Green Expenditure (€ Million)	ISGB Proceeds Allocation including adjustments (€ Million)	Allocation Percentage from ISGB Proceeds	Impact I	ndicator	Other impact indicators and additional Information							
Forestry and	73.7	11.3	15%	Afforestation (hectares of broadleaf planted)	899	Teagasc Forestry Statistics							
bio-energy	73.7	11.5	13%	Afforestation (hectares of conifers planted)	753	leagast Polestry Statistics							
Environmental				Number of reports published	29	Visits to drinking water sites: 204 Visits to Industrial, waste, dumping at sea and VOC facilities: 1,326 Visits to Industrial, waste, dumping at sea and VOC facilities: 1,326							
Protection Agency Administrative	44.4	6.8	15%	Number of visits to Urban Waste Water Sites	218	 Radiation licences issued: 83 Prosecutions heard: 8 (7 in District Court and 1 Circuit Court) Number of environmental queries from the public: 2,356 							
expenses				Environmental licences issued (permits, authorisations and licences)	1434 (IE,IPC, Waste, WWDL, Historic Landfill, DaS, GHG, MCP's, Radiological etc)	 Additional Information not requested but might be useful for the return: Article 27 & Article 28 = 620 Product certification for radioactivity content = 2,550 							
International Climate Change Commitments	26.4	4.0	15%	Number of partners provided with funding	10								
				Number of Landfill sites remediated	3	Landfill remediation funding drawn down in respect of 82 sites in 24 local authorities							
Waste Management Programmes	22.8	3.5 15%	3.5 159	15%	3.5 15 %	3.5 15 %	3.5 15 %	3.5 15 %	3.5 15 %	3.5 15%	Number of Diesel laundering sites cleaned up	41	
											Number of EPR Stockpile sites remediated	1	
Environmental and Climate	16.2	2.5	15%	Number of reports published	36 CAMG								
Research	10.2	2.3	1370	Number of reports published	29 EPA								
National	/20	0.7	459/	Number of species held by the National Biodiversity Data Centre	17,918	4th National Biodiversity Action Plan							
heritage (NPWS)	62.9	9.6	15%	Number of NPWS farm plan schemes	317								
Peatlands restoration and management	5.0	0.8	15%	Land area conserved/restored (hectares)	2,291	Incentive payments covering an area of 67 Hectares under the <u>Protected Raised Bog Restoration Incentive Scheme</u> for designated raised bogs							

Figures may not total due to rounding

Total Allocated 2023 to Environmentally Sustainable

Management of Living Natural Resources and Land 38.4

Built Environment/Energy Efficiency

Environmental Objectives: Climate Change Mitigation









13 CLIMATE ACTION	

Project/ Programme/ Scheme	Green Expenditure (€ Million)	ISGB Proceeds Allocation including adjustments (€ Million)	Allocation Percentage from ISGB Proceeds	Impact Indicator		Other impact indicators and additional Information
Non- residential Energy Efficiency Programmes	93.4	14.3	15%	Annual energy savings (GigaWatt Hours)	371 GWh	Savings identified from the following programmes: Public Sector Pathfinder Programme Public Sector Energy Efficiency Partnership Programme Energy Efficient Design (EXEED) Large Industry Energy Network (LIEN) Energy Academy
Sustainable Energy Authority of Ireland (SEAI) admin and general expenses	25.2	3.8	15%	Non-domestic BERs published Display Energy Certificates	158,698 4,893 929	
Energy Efficiency - Retrofitting	76.9	11.7	15%	(DEC) published Annual energy savings (GigaWatt Hours) Annual Greenhouse gas emissions reduced/ avoided in kilotonnes of C02 equivalent Number of homes renovated	35.2 10.3 2,445	2023 Energy Efficiency Programme B2 / Cost Optimal Equivalent EERP: 2252 units Midland Retrofit Programme: 193 units
Total Allocate	d 2023 to Built	29.9				

Figures may not total due to rounding

Environment/Energy Efficiency

Clean Transportation

Sustainable Development Goals







Environmental Objectives: Pollution Prevention and Control/Climate Change Mitigation

Project/ Programme/ Scheme	Green Expenditure (€ Million)	ISGB Proceeds Allocation including adjustments (€ Million)	Allocation Percentage from ISGB Proceeds	Impact I	ndicator	Other impact indicators and additional Information
				No. of new Grant-Aided Electric Vehicle Purchases	15,846	
Carbon Reduction	82.9	12.7	15%	No. of grant-aided small public service vehicles (taxi/hackney/ limousine)	651	
				No. of vehicles registered: Electric Vehicle Toll Incentive Scheme	47,397	
Low Emission Vehicle Incentivisation	25.4	3.9	15%	No. of grant-aided electric vehicle home charging points installed (including chargers in multi-unit developments from 2020)	20,416	
Public service provision payments	607.3	92.8	15%	Passenger Journeys (millions)	310.6	Please see table below for detailed information
				No. of new buses and coaches delivered (All Low Floor)	120	Please see table below for detailed information
Public Transport	757.6	115.7	15%	% of new buses and coaches delivered that are ZEV	96%	Please see table below for detailed information
Investment				Annual operated vehicle kilometres (millions)	122.6	Please see table below for detailed information
				Annual operated vehicle seat kilometres (millions)	14,036	Please see table below for detailed information
Active Travel Infrastructure	347.8	53.1	15%	No. of kilometers Active Travel infrastructure delivered	193km	
Greenways	24.0	3.7	15%	Additional km of Greenway Projects funded for feasability/ detailed design/ environmental Screening	over 1,905km	
Total Allocated	2023 to Clean	281.9				

Figures may not total due to rounding

Transportation

Clean Transportation

11

Public service provision payments and Sustainable transport investment programme details

Annual Public Service Provision Payment (PSPP) Passenger Journeys (Millions)	2023				
PSPP Public Transport Passenger Numbers:					
LUAS Passenger Numbers	48.2				
larnród Éireann Passenger Numbers	46.1				
Dublin Bus Passenger Numbers	146				
Bus Éireann Passenger Numbers	43.1				
Go Ahead Passenger Numbers	18.1				
Others services	9.6				

Annual PSPP Fleet & Tram Numbers	2023
PSPP Bus Fleet numbers - Dublin Bus/Go Ahead	1,252
PSPP Bus Fleet numbers - Bus Eireann	700
LUAS tram numbers	81

Additional Measures	2023
Segregated cycling infrastructure added (kms)	70
Length of new footpaths (kms)	123
No. of cycle parking stands provided in urban centres	4,355

Annual Operated Vehicle Kilometres* (Millions)	2023
LUAS	4.3
larnród Éireann	18
Dublin Bus	50.9
Bus Éireann	49.4

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Annual Operated Vehicle Seat Kilometres** (Millions)					
LUAS	1,337.50				
larnród Éireann	6,455.30				
Dublin Bus	3,436.10				
Bus Éireann	3,085.20				

Operated vehicle kilometres refer to the actual amount of vehicle kilometres that a bus or rail company has operated in a given period, as opposed to 'scheduled vehicle kilometres' which would indicate the number of vehicle kilometres that they intended to operate as per their cumulative timetables

^{**} Vehicle seat-kilometres is a unit of passenger transport capacity measuring the total number of seats available multiplied by the kilometres travelled

Dublin Bus and Bus Eireann Emissions Metrics					
Passenger Journeys for Dublin Bus and Bus Eireann (millions)					
CO2e (tns) - Dublin Bus network buses	68,733				
CO2e (tns) - Bus Eireann network buses					
CO2e (tns) - Bus Eireann and Dublin Bus	118,077				
CO2e (grams) per passenger journey - Dublin Bus					
CO2e (grams) per passenger journey - Bus Eireann	2,740				

CO2e data based on all fuels consumed for traction.

Bus Eireann emissions data refers the Bus Eireann Direct Award contract only.

Renewable Energy

Sustainable Development Goals





Environmental Objectives: Climate Change Mitigation

Project/ Programme/ Scheme	Green Expenditure (€ Million)	ISGB Proceeds Allocation including adjustments (€ Million)	Allocation Percentage from ISGB Proceeds	Impact Indicator		Additional Information
Energy research programmes	17.8	2.7	15%	Number of companies (including public sector organisations) benefitting from SEAI Research & Innovation programmes as lead, partner or active collaborators	32 (24 companies; 8 public sector organisations)	https://www.seai.ie/sites/default/files/publications/SEAI-Annual-Report-2023-Irish-and-English.pdf
				Number of SEAI Research & Innovation awards benefitting research institutions	36	
Total Allocated 2023 to Renewable Energy		2.7				

Figures may not total due to rounding

Appendix 1: Allocation Table

Eligible Green Categories

Eligible Green Categories	Project/Programme/Scheme	Eligible Green Expenditure € '000s	ISGB Proceeds Allocation € '000s
Built Environment/Energy Efficiency Total		195,457.0	29,858.6
Built Environment/Energy Efficiency breakdown of programmes and schemes	Non-Residential Energy Efficiency Programmes	93,386.0	14,265.9
	Energy Efficiency - Retrofitting	76,900.0	11,747.5
	Sustainable Energy Authority of Ireland (SEAI) Admin and General Expenses	25,171.0	3,845.2
Clean Transportation Total		1,845,040.0	281,853.4
Clean Transportation breakdown of programmes and schemes	Public Transport Investment	757,621.0	115,736.3
	Public Service Provision Payments	607,329.0	92,777.3
	Active Travel Infrastructure	347,819.0	53,133.8
	Carbon Reduction	82,889.0	12,662.4
	Greenways	23,982.0	3,663.6
	Low Emission Vehicle incentivisation	25,400.0	3,880.2
Climate Change Adaptation Total		68,374.0	10,445.0
Climate Change Adaptation breakdown of programmes and schemes	Flood Risk Management (OPW)	59,242.0	9,050.0
	Climate Initiatives	9,132.0	1,395.0
Environmentally Sustainable Management of Living Natural Resources and Land Use Total		251,556.0	38,428.4
Environmentally Sustainable Management of Living Resources and Land Use breakdown of programmes and schemes	Forestry and Bio-energy	73,746.0	11,265.6
	Environmental Protection Agency - Administrative expenses	44,430.0	6,787.2
	National Heritage (NPWS)	62,921.0	9,612.0
	Waste Management Programmes and Landfill Remediation	22,848.0	3,490.3
	International Climate Change Commitments	26,408.0	4,034.2
	Environmental and Climate Research	16,173.0	2,470.6
	Peatlands Restoration and Management	5,030.0	768.4
Renewable Energy Total		17,786.0	2,717.0
Renewable Energy breakdown of programmes and schemes	Energy Research Programmes	17,786.0	2,717.0
Sustainable Water and Wastewater Management Total		1,032,153.0	157,674.5
Sustainable Water and Wastewater Management breakdown of programmes and schemes	Capital Expenditure provided to Irish Water for domestic services	970,600.0	148,271.5
	Rural Water Programme	61,553.0	9,403.0
Grand total expenditure and allocations		3,410,366	520,977

Figures may not total due to rounding

Glossary

EPR Extended Producer Responsibility

CAMG Climate Action Modelling Group

GWh GigaWatt hoursGHG Greenhouse Gas

ktCO2e Kilotonnes of carbon dioxide equivalent

KM Kilometre

VOC Volatile Organic Compounds

EV Electric vehicle

BEV Battery electric vehicle

PHEV Plug-in hybrid electric vehicle

LEV Low emission vehicle

NPWS National Parks & Wildlife Service

SEAI Sustainable Energy Authority of Ireland

UWWTD Urban Waste Water Treatment Directive

VRT Vehicle Registration Tax

MLD Millions of litres per day



