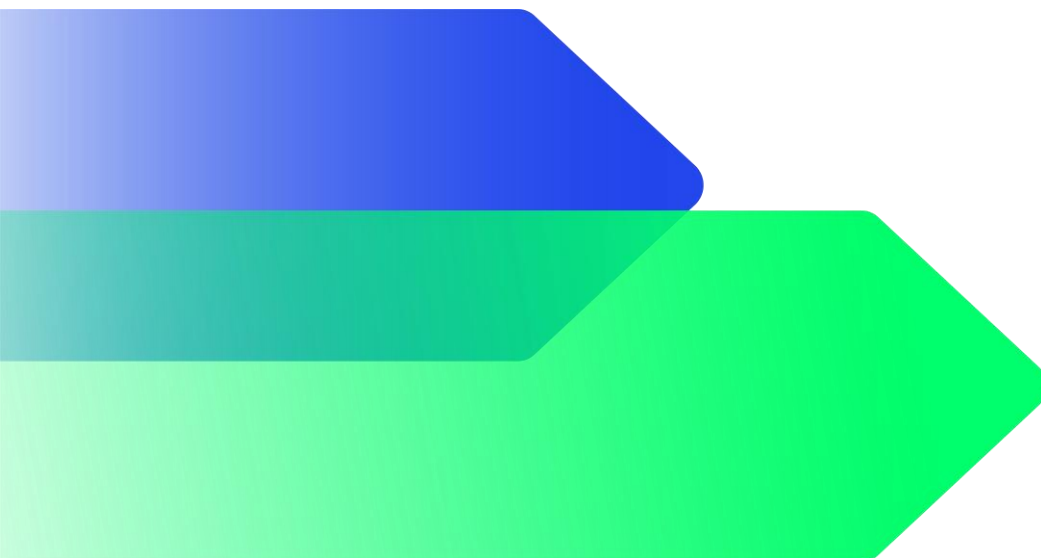


REPORT

AIB 2021 Impact Assessment

For eligible Green Bond projects for AIB up to December 31, 2021

February 2022



Contents

Introduction	1
Description of Eligible Green Projects	1
Contribution to environmental objectives	Error! Bookmark not defined.
Breakdown of Green projects by nature of what is being financed ...	Error! Bookmark not defined.
Environmental impact of projects (total asset impact attribution)	4
Environmental impact of projects (outstanding loan attribution).....	8
Impact attribution methodology.....	8

Introduction

Aligned with its sustainability strategy, Allied Irish Banks (“**AIB**”) is intending to issue green bonds to finance and / or refinance loans that meet the requirements as described in the AIB Green Bond Framework (“**Framework**”)¹. The objective of the Framework, and subsequent green bonds issued from it, is to fund projects or assets that mitigate climate change by reducing emissions, protect ecosystems or otherwise have a positive environmental impact. The Framework has been aligned to the ICMA Green Bond Principles, and has received a Second Party Opinion from Sustainalytics.

In accordance with the AIB Green Bond Framework dated December 2021, this document provides:

1. A description of the Eligible Green Projects;
2. The breakdown of the Eligible Green Projects by nature of what is being financed;
3. Metrics regarding Eligible Green Projects’ environmental impacts.

Description of Eligible Green Projects

AIB, at its discretion but in accordance with the ICMA Green Bond Principles², will allocate the net proceeds of the Green Bonds issued under the Framework, to a loan portfolio of new existing loans in certain Eligible Green Categories.

Green buildings

The Eligible Green Project Portfolio includes “Green Commercial Buildings”, the criteria for which are set out below¹:

Green Commercial Buildings

Ireland

- Green Commercial Buildings in Ireland built up to and including 31st December 2020:
 - Existing commercial buildings, belonging to the top 15% low carbon buildings in the local context.
- Green Commercial Buildings in Ireland built from 1st January 2021 onwards:

¹ <https://aib.ie/investorrelations/debt-investor/green-bonds/green-bond-framework>

² <https://www.icmagroup.org/assets/documents/Sustainable-finance/2021-updates/Green-Bond-Principles-June-2021-140621.pdf>

- New commercial buildings that have a primary energy demand at least 10% lower than what is required by the local Nearly Zero-Energy Building (NZEB) regulation.
- Refurbished Commercial Buildings in Ireland:
 - Buildings with at least a 30% improvement in energy efficiency:
 - When such an improvement is derived from BER labels, a minimum floor of a “C3” BER label will be implemented.

UK

- New or existing commercial buildings in the UK, belonging to the top 15% low carbon buildings in the local context (i.e. England & Wales, Scotland and Northern Ireland)
- Refurbished Commercial Buildings in the UK
 - Buildings with at least a 30% improvement in energy efficiency:
 - When such an improvement is derived from EPC labels, a minimum floor will be implemented for the considered building. The floor will be one step below the lowest defined threshold to be part of the top 15% in the local context.

Ireland and the UK

- New or existing commercial buildings which received at least one or more of the following classifications:
 - BREEAM ‘Excellent’ or higher
 - LEED ‘Gold’ or higher
 - DGNB ‘Gold’ or higher

Green Residential Buildings

Ireland

- Green Residential Buildings in Ireland built up to and including 31st December 2020:
 - Existing residential buildings, belonging to the top 15% low carbon buildings in the local context.
- Green Residential Buildings in Ireland built from 1st January 2021 onwards:
 - New residential buildings that have a primary energy demand at least 10% lower than what is required by the local Nearly Zero-Energy Building (NZEB) regulation.
- Refurbished Residential Buildings in Ireland:
 - Buildings with at least a 30% improvement in energy efficiency:
 - When such an improvement is derived from BER labels, a minimum floor of a “C3” BER label will be implemented.

Renewable Energy








Renewable Energy assets located in Ireland, the UK and across the EU:

- Loans to finance or refinance equipment, development, manufacturing, construction, operation, distribution and maintenance of renewable energy generation. Eligible renewable energy sources include:
 - Solar Energy: Photovoltaics (PV), concentrated solar power (CSP) and solar thermal facilities.
 - Wind Energy: Onshore and offshore wind energy generation facilities and other emerging technologies.
 - Anaerobic digestion of bio-waste: treatment of bio-waste through anaerobic digestion (AD) with resulting production and energetic utilization of biogas (electricity/heat generation). Energy crops and non-waste feedstock are excluded.

Clean Transportation

- Zero emissions vehicles and supporting infrastructure:
 - Fully electric, hydrogen or otherwise zero emissions vehicles for the transportation of passengers.
 - Infrastructure to support zero emissions vehicles including but not limited to EV charging and hydrogen fuelling stations.

Contribution to environmental objectives

ICMA Eligible Category	Eligible Category Description	UN SDGs	Project Ireland 2040 Target	Climate Action Plan for Ireland	EU Environmental Objective
Green Buildings	Loans to finance or refinance new or existing commercial and residential buildings	  	<ul style="list-style-type: none"> Compact Growth Transition to a Low Carbon and Climate Resilient Society 	<ul style="list-style-type: none"> Reduce CO2 eq. emissions from the sector by 40–45% relative to 2030 pre-NDP projections Complete 500,000 building retrofits to achieve a B2 BER, and 400,000 to install heat pumps 	<ul style="list-style-type: none"> EU Environmental Objective (1): Climate Change Mitigation Substantial contribution to Climate Change Mitigation (1.b): Improving energy efficiency
Renewable Energy	Loans to finance or refinance generation, equipment, development, manufacturing, construction, operation, distribution and maintenance of renewable energy generation	 	<ul style="list-style-type: none"> Compact Growth Transition to a Low Carbon and Climate Resilient Society 	<ul style="list-style-type: none"> Target: Achieving 70% renewable electricity by 2030, by harnessing renewable energy, supporting micro-generation and improving grid connections 	<ul style="list-style-type: none"> EU Environmental Objective (1): Climate Change Mitigation Substantial contribution to Climate Change Mitigation (1.a): Generating, transmitting, storing, distributing or using renewable energy in line with Directive (EU) 2018/2001, including through using innovative technology with a potential for significant future savings or through necessary reinforcement or extension of the grid
Clean Transportation	Loans to finance or refinance, establishment, acquisition, expansion, upgrades, maintenance and operation of low carbon vehicles and related infrastructures	 	<ul style="list-style-type: none"> Compact Growth Transition to a Low Carbon and Climate Resilient Society 	<ul style="list-style-type: none"> Reduce CO2 eq. emissions from the sector by 45–50% relative to 2030 pre-NDP projections Increase the number of EVs to 936,000 Build the EV charging network to support the growth of EVs at the rate required, and develop our fast-charging infrastructure to stay ahead of demand 	<ul style="list-style-type: none"> EU Environmental Objective (1): Climate Change Mitigation Substantial contribution to Climate Change Mitigation (1.c): Increasing clean or climate-neutral mobility

Environmental impact of projects (total asset impact attribution)

The area of impact assessment related to green bonds and more widely the accounting of financed carbon emissions, is developing rapidly. Our aim is to represent current best practice and where possible move that forward. To this end we have considered current market practice, recognised impact reporting standards including ICMA's Harmonized Framework for Impact Reporting³, and from the related area of emissions reporting, the PCAF methodologies⁴, specifically around attribution.

Market practice in green bond impact assessments, typically presents the total avoided emissions from a given asset allocated to the bond. For example, all the avoided emissions from a battery electric vehicle (BEV) will be attributed to the financing although in practice the financing may not represent the total value of the vehicle. To give as complete a picture as possible we have presented the impact related to AIB's green bond with the headline impact figures (total asset impact attribution) as per market practice, but also included a secondary analysis attributing the impact according to the outstanding loan amount (outstanding loan attribution) to the relevant assets at this point in time. Please note, in the case of renewables because of the nature of the financing it is normal practice to attribute impact according to the proportion of the total financing provided to the project. This approach has been followed below.

The Eligible Green Project Portfolio is assessed regarding the following environmental impacts:

- **Green Buildings:**
 - Estimated annual energy consumption (in kWh/year) and estimated annual avoided energy consumption (in kWh/year)
 - Estimated annual avoided emissions (in tons CO₂/year)
- **Clean Transportation:**
 - Annual GHG emission avoided (in kg CO₂/year)
 - Number of battery electric vehicles (BEVs) deployed
- **Renewable Energy:**
 - Total installed capacity (in MW)

³ <https://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/Handbook-Harmonized-Framework-for-Impact-Reporting-December-2020-151220.pdf>

⁴ <https://carbonaccountingfinancials.com/files/downloads/PCAF-Global-GHG-Standard.pdf> Since the last impact report, PCAF has updated their methodology around the attribution of emissions. The update removes the previous distinction between syndicated and bilateral loans, and instead adopts a common outstanding loan value against the project/asset value in total.

- Estimated annual avoided emissions (in tons of CO₂/year)

Table 1 Estimated environmental impact from AIB's operational project portfolio, as of December 31, 2021

Eligible ICMA Project Category	Number of eligible projects	Eligible portfolio (€)	Share of Total Financing	Eligibility for green bonds	Est. annual avoided emissions (tCO ₂ /year)	Total installed capacity (MW)	Est. annual energy consumption (kWh/year)	Est. annual avoided energy consumption (kWh/year)
a/		b/	c/	d/	e/	f/	g/	h/
Green Buildings	21	544,996,848	31%	100%	7,426	-	37,594,376	27,238,019
Clean Transportation	783	20,735,377	1%	100%	779	-	2,201,691	-
Renewable Energy	42	1,193,434,009	68%	100%	750,498	747.16	-	-
Total	1,264	1,759,166,234	100%	100%	758,462	747	37,793,470	27,238,019

Portfolio based green bond report in accordance with the ICMA Harmonized Framework for Impact Reporting (version Dec 2021)

a/ Eligible Category

b/ Signed amount represents the amount legally committed by the issuer for the portfolio or portfolio components eligible for Green Bond Financing

c/ This is the share of the total portfolio cost that is financed by the issuer per Eligible Category

d/ This is the share of the total portfolio costs that is eligible for Green Bond issuances

e/ f/ g/ Impact indicators

- Estimated annual avoided emissions (tCO₂/year)
- Total installed capacity (MW)
- Estimated annual energy consumption (kWh/year)
- Estimated annual avoided energy consumption (kWh/year)

Table 2 Estimated environmental impact from AIB's in-development project portfolio, as of December 31, 2021

Eligible ICMA Project Category	Number of eligible projects	Eligible portfolio (€)	Share of Total Financing	Eligibility for green bonds	Est. annual avoided emissions (tCO ₂ /year)	Total installed capacity (MW)	Est. annual energy consumption (kWh/year)	Est. annual avoided energy consumption (kWh/year)
a/		b/	c/	d/	e/	f/	g/	h/
Green Buildings	30	591,220,950	83%	100%	30,547	-	57,358,656	117,952,888
Green Buildings Balance Sheet Lending	2	90,800,000						
Clean Transportation	-	-	-	-	-	-	-	-
Renewable Energy	7	125,362,074	17%	100%	401,906.47	66.93	-	-
Total	37	807,383,024	100%	100%	432,453	67	57,358,656	117,952,888

Portfolio based green bond report in accordance with the ICMA Harmonized Framework for Impact Reporting (version Dec 2021)

a/ Eligible Category

b/ Signed amount represents the amount legally committed by the issuer for the portfolio or portfolio components eligible for Green Bond Financing

c/ This is the share of the total portfolio cost that is financed by the issuer per Eligible Category

d/ This is the share of the total portfolio costs that is eligible for Green Bond issuances

e/ f/ g/ Impact indicators

- o Estimated annual avoided emissions (tCO₂/year)
- o Total installed capacity (MW)

- Estimated annual energy consumption (kWh/year)
- Estimated annual avoided energy consumption (kWh/year)

Table 3 Combined Impacts of operational and non-operational projects portfolio, as of December 31, 2021

Eligible ICMA Project Category	Number of eligible projects	Eligible portfolio (€)	Share of Total Financing	Eligibility for green bonds	Est. annual avoided emissions (tCO ₂ /year)	Total installed capacity (MW)	Est. annual energy consumption (kWh/year)	Est. annual avoided energy consumption (kWh/year)
a/		b/	c/	d/	e/	f/	g/	h/
Green Buildings	53	1,227,017,798	48%	100%	37,973	-	94,953,032	145,190,907
Clean Transportation	783	20,735,377	1%	100%	779	-	2,201,691	-
Renewable Energy	49	1,318,796,083	51%	100%	1,152,404	814	-	-
Total	885	2,566,549,258	100%	100%	1,191,156	814	97,154,723	145,190,907

Environmental impact of projects (outstanding loan attribution)

Impact attribution methodology

The attribution methodology for the renewable energy projects and commercial green buildings were as follows: the outstanding loan value was divided by the project value (or the property value in the case of buildings if the project value was unavailable) to provide the share of avoided emissions that can be attributed to AIB (referred to as the 'attribution factor').

For the clean transportation projects, as the project value was unavailable, we used the retail price of the BEV model as a proxy⁵. The outstanding loan amount was divided by the vehicle's retail price to provide an attribution factor. This attribution factor was then multiplied by the estimated total avoided emissions from each BEV.

In addition to the impact metrics reported in tables 1 and 2, which are in line with the ICMA recommendations, the below tables represent the avoided emissions from the same projects if only a portion of the avoided emissions were to be attributed to the AIB.

Table 3 Estimated CO₂ emissions avoidance and attribution from AIB's operational project portfolio, as of December 31, 2021

Eligible ICMA Project Category	Est. annual avoided emissions (tCO ₂ /year)	Est. annual avoided emissions (tCO ₂ /year), attributed to AIB	Average attribution factor
Green Buildings	7,426	3,650	49%
Clean Transportation	779	423	54.2%
Renewable Energy	8,895,272	750,498	

⁵ The retail price per BEV was sourced from the [SEAI's car comparison tool](#). As vehicle models have various types, the average price across all types was used for the price of a vehicle model (e.g., price used for Nissan Leaf was the average of the price of the Leaf SV 62 kWh, the Leaf XE 40 kWh, the Leaf SVE Premium 62 kWh etc.). As all the BEVs in the portfolio were eligible for an [SEAI BEV grant](#) of €5,000 (because they cost more than €20,000), this grant amount was deducted from each average vehicle model price.

Total	8,903,477	754,571	
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Table 4 Estimated CO₂ emissions avoidance and attribution from AIB's in-development project portfolio, as of December 31, 2021

Eligible ICMA Project Category	Est. annual avoided emissions (tCO₂/year)	Est. annual avoided emissions (tCO₂/year), attributed to AIB	Average attribution factor
Green Buildings	30,547	6,872	22%
Clean Transportation	-	-	-
Renewable Energy	26,312,446	401,906.5	2%
Total	26,342,993	408,779	

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+44 (0) 20 7170 7000

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