

Green Mortgages for Certified Green Homes

A Handbook for Irish Financial Institutions



The Home Performance Index certification identifies homes that offer:

- Superior building quality
- Cheaper to run and healthier homes
- Alignment with the EU Taxonomy
- Reduced mortgage default risk
- Opportunity to issue green bonds
- Alignment with increasing financial regulatory requirements on climate-risk
- Reputational benefits



This handbook is part of a project that has received funding from European Union's Horizon 2020 program under grant agreement 847141.

Table of Contents

Executive Summary	3
The business case for Green Mortgages for Certified Green Homes	5
About the Home Performance Index Standard and Certification Process	11
Responsibilities and Benefits of using Home Performance Index as eligibility for a green mortgage	15
About the Irish Green Building Council	16
FAQs	17
Contributors	17
Appendix I: EU Taxonomy - Criteria relating to Construction of New Buildings	18
Appendix II: Home Performance Index Criteria	19
Appendix III: Glossary	21
Appendix IV: Case Studies	23

“ A transition to a green, low-carbon economy is still imperative. Not as a niche, or something that is just “nice to have” — we simply cannot go back to “business as usual.” The economic response to the pandemic should therefore be not to rebuild the old economy with its inherent climate risks, but to act now to lay the groundwork for an orderly transition to a more sustainable economy and climate-resilient financial system. A green recovery. It may just be the pivotal moment for humankind to rethink its relationship with nature and create a greener and healthier future. ”

- Network for Greening the Financial System. (September 2020). Overview of Environmental Risk Analysis by Financial Institutions. Available at <https://www.ngfs.net/en/overview-environmental-risk-analysis-financial-institutions>

Executive Summary

The Context

Irish financial institutions recognise the game-changing role they can play in profitably supporting the national transition to a low carbon, resource efficient and circular economy. As part of their broader sustainable lending strategy several banks in the Irish market have already launched discounted green mortgage products.

The current position in Ireland, as is common internationally, is that eligibility for a discounted green mortgage is linked solely to energy efficiency. The Building Energy Rating (BER) certificate can be used as proof of eligibility that a home is “green”, allowing lenders to rely on the quality and transparency of the underlying BER quality assurance system. However, going forward, the EU Taxonomy for Sustainable Activities is expected to become the benchmark for determining what is green for all financial purposes, including financial regulatory. The Taxonomy definition of a green new home considers other environmental factors in addition to energy efficiency, and a BER certificate alone is unlikely to be sufficient to comply with this definition.

The Home Performance Index and the EU Taxonomy

One of the challenges for mortgage lenders seeking to look beyond energy efficiency, is precisely what eligibility criteria to use. The solution for this challenge can be found in the Home Performance Index (HPI), the national green home standard and certification system that has been developed by the Irish Green Building Council (IGBC).

The current definition of a new home under the Taxonomy requires consideration of environmental factors beyond energy efficiency. As the rest of the technical criteria under the Taxonomy are developed, there are expected to be criteria for new builds relating to flood risk, circular economy, and ecosystems. Recommendations for future developments include regular review and tightening of the main criteria over time and the introduction of embodied carbon thresholds by 2025. All these criteria are already considered in the HPI system and it is intended that it will be updated as the Taxonomy evolves.

The HPI certification provides a robust and nationally-tailored green home label, that is aligned with the EU Sustainable Finance Taxonomy and also with Level(s), the new EU sustainable buildings assessment and reporting framework. It is a ready-made solution for finance providers seeking third party assurance that eligibility criteria for new “green” homes are met.



The Business Case for Green Mortgages for HPI Certified Green Homes

From a commercial perspective, sustainability is about more than the climate crisis and involves balancing environmental, social and economic objectives. Doing the right thing must bring a positive financial return. Going beyond energy efficiency for discounted green mortgages must be commercially justified as well as making a positive contribution to the environment.

There is a strong business case for mortgage lenders to consider broader environmental criteria for discounted green mortgages. The motivational factors can be broadly grouped into three areas across commercial, regulatory and reputational factors, which are all explored in this Handbook. In addition to the benefits of aligning with the EU Taxonomy note above, these include:

- The opportunity to finance the highest quality new homes being developed in the country.
- Evidence shows that positioning green mortgages with green certification like the HPI tends to reduce mortgage default risk and raise the market valuation of homes (beyond the benefits associated with energy efficiency alone).
- Avail of a green supporting factor, if introduced.
- Reputational benefits.

The Purpose of this Handbook

This Handbook provides detail on the business case for using the HPI certification to confirm eligibility for a discounted green mortgage. It also provides an overview of the HPI system itself,



Home Performance Index certification system awarded 5 stars for good practice and transferability by the European Construction Sector Observatory December 2020.

Did you know ...

Buildings are responsible for approximately 40% of energy consumption and 36% of CO₂ emissions in the EU. In Ireland about 28% of energy-related CO₂ emissions come from homes.

Sources: European Commission and SEAI report 2018



1/2 of all extracted materials



1/2 of the total energy consumption



1/3 of water consumption



1/3 of waste generation



Image credit: Naoise Culhane

from the criteria involved to the approval process, to how it compares to other green building standards and certification systems.

This objective of doing so is to accelerate knowledge gathering and capacity building by finance providers so that, together with industry stakeholders and policymakers, a shared understanding of the opportunities and challenges presented by reducing the volume of carbon emissions in the new home sector is developed. Mortgage lenders that link discounted green mortgages to the HPI label will become part of the solution for protecting our planet and improving the quality of life and wellbeing of people, while also strengthening the quality and climate-resilience of their mortgage loan book.

What Next?

Mortgage lenders interested in understanding more about the HPI system are encouraged to reach out to the IGBC for further information.



Call Pat or Johanna on (01) 681 5862 or email pat@igbc.ie or johanna@igbc.ie

Green Mortgage

The terms “green mortgage” and “energy efficient mortgage” are used interchangeably but technically they mean different things. A discounted mortgage linked solely to the energy performance of a building is an energy efficient mortgage. Whereas a green mortgage has a more holistic approach and, in addition to energy efficiency, takes into account other factors such as water usage, indoor air quality, waste reduction measures, and embodied carbon. In practice, however, most of what are called green mortgages on offer in Ireland and elsewhere are based purely on energy efficiency. Green mortgages can offer consumers a range of benefits including reduced interest rates, an increase in the loan amount or other benefits.

EU Taxonomy

The EU Taxonomy is a tool to provide a common language to identify economic activities that are considered environmentally sustainable. It is basically a ruleset to determine what is “green” in a European context. The provisions of the Taxonomy Regulation relating to climate change mitigation and climate change adaptation and the related technical criteria are to apply from 1 January 2022.

The SMARTER Initiative

The EU-supported SMARTER Finance for Families Initiative aims to push boundaries in the finance and green certification of new sustainable homes. In an Irish context, one of the objectives is to encourage Irish mortgage lenders to go beyond energy efficiency alone and consider a more holistic definition of a green home when designing green mortgage products. The aim of doing so is to leverage the power of the financial sector to drive green home building standards, with a view to aligning the construction of all new Irish homes with the Paris Agreement and the national policy objective to reach net zero carbon emissions by 2050.

The business case for Green Mortgages for Certified Green Homes



Mortgage lenders (and their shareholders) are increasing their ambition with regards to financing low carbon buildings that hold potential for long-term greenhouse gas emission savings. Financial regulators are increasingly focused on climate-related financial risk and financial policymakers are developing policy measures to mobilise finance for low carbon investments, support the identification of climate-related risk and minimize greenwashing. These factors will drive shifts requiring integration of environmental and climate-related risk into underwriting, portfolio management and strategic decision-making.

Drivers

The drivers for green mortgages generally and, more particularly, green mortgages based on HPI certification include:

Commercial

- Link with highest quality property developers
- Alignment with the EU Taxonomy
- Lower risk of default
- Opportunity to issues green bonds
- Consumer demand

Regulatory

- Climate stress testing
- Climate risk and prudential supervision
- Green supporting factor

Reputational

- Corporate sustainability strategy
- Customer and talent attraction and retention
- Principles of Responsible Banking commitments

Commercial Drivers

Link with highest quality property developers

Only the highest quality and most reputable property developers and investors go beyond national building regulations and seek HPI accreditation. Engaging with the IGBC in relation to the HPI label affords the opportunity to engage with those parties. See figure on the right of developers and investors that use or will use HPI certification.

Alignment with EU Taxonomy

The EU Taxonomy is a tool to provide a common language to identify economic activities that are considered environmentally sustainable. It is basically a rule-set to determine what is “green”



Developers using, or that plan to use, Home Performance index certification

in a European context¹.

Its aim is to direct private capital towards long-term environmentally sustainable activities, support the identification of climate-related financial risks and help avoid “greenwashing”. The approach to the Taxonomy is science-based and it defines what is green based on technical criteria. To align with the Taxonomy, an economic activity must “substantially contribute” to one of six environmental objectives and must do no significant harm (DNSH) to any other. Generally, the DNSH measures are already addressed by regulation in a particular sector. There are also minimum social and governance standards that must be met. Unsurprisingly, buildings are identified as having the potential to substantially contribute to climate change mitigation. The

¹ EU consultation on Taxonomy, 20 November 2020. On 20 November 2020, the EU Commission on 20 November 2020 published a delegated regulation containing the technical screening criteria for the first two environmental objectives (climate change mitigation and climate change adaptation). The plan is that the Commission will adopt the final agreed version in 2021, with legislation entering into force in January 2022.

criteria for new builds are set out in the box below but the key point to note here is that the definition of a green new build goes beyond current Irish building regulations on energy efficiency and requires that a home must be 10% lower than the national NZEB requirements. The DNSH criteria outlined must also be met.

EU Taxonomy

Substantially contribute
to at least 1 of 6 environmental objectives as defined in the regulation

Do No Significant Harm
to any of the other 5 environmental objectives as defined in the regulation

Comply with Minimum Safeguards

Source: https://ec.europa.eu/info/publications/sustainable-finance-technical-expert-group_en

As the rest of the technical criteria under the Taxonomy are developed, there are expected to be criteria for new builds relating to flood risk, circular economy, and ecosystems – all criteria that are already taken into account in the HPI.

Furthermore, recommendations for future developments outlined in the final Technical Expert Group Taxonomy Report² include:

- regular review and tightening of the main criteria over time
- the introduction of embodied carbon thresholds by 2025

The HPI certification is reviewed every two years to ensure it is in line with the EU Taxonomy definition of a new residential building.

The Taxonomy will be used in a variety of ways that will be relevant to mortgage lenders, including to underpin disclosures by lenders when reporting on climate-related risks and sustainable investments to financial markets and regulators. Standards and labels for green finance products will also reference the Taxonomy, with the first example being the EU Green Bond Standard. At the time of writing, there are also discussions in the EU that suggest that the stimulus and recovery packages launched after COVID-19 may be linked to the Taxonomy to ensure alignment with the EU's long-term ambitions.

Lower risk of default

An increasing volume of evidence indicates that energy efficiency measures have a positive effect on real estate value and homeowner solvency. Analysis undertaken by the Bank of England in January 2020 concluded that mortgages against energy efficient properties are less frequently in payment arrears than mortgages against properties with poor energy efficiency. This result is robust when controlling for other relevant determinants of mortgage default, including borrower income and the loan to value ratio of the mortgage. The report concludes that energy efficiency is a relevant predictor of mortgage defaults³.

The UK is not the only jurisdiction to undertake this analysis.

² Technical Expert Group, Taxonomy Final Report, March 2020

³ B. Guin & P. Korhonen, Does Energy Efficiency Predict Mortgage Performance?, 2020

Definition of a “green” new build under the EU Taxonomy

With regard to new buildings, the core criteria are as follows

- 10% lower than national Nearly Zero Energy Building (NZEB) requirements
- Certified using the national Energy Performance Certification
- Large buildings (>5,000m²) must be tested for airtightness and thermal integrity
- Large buildings' (>5,000m²) life cycle Global Warming Potential calculated for each stage in life cycle

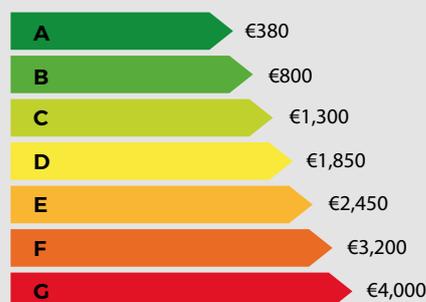
In addition, the DNSH criteria are:

- Minimum requirements for water appliances
- Minimum 70% of non-hazardous construction and demolition waste is prepared for re-use, recycling and other material recovery
- No asbestos
- Site has to be checked to ensure it isn't contaminated
- Environmental Impact Assessment completed
- Assess and reduce material physical climate risks

Additional evidence is summarised in a recent report by the EU Horizon2020-funded EeDaPP project which provides a current summary of literature evaluating the link between energy efficiency, credit risk and property value⁴.

See also the 2020 Fitch Ratings report that indicates environmental considerations are seen to improve the credit profile of mortgages and the deal structures they support due to higher credit quality debtors, greater disposable income from reduced energy costs and lower interest expenditure if lenders offer discounted financing for energy efficient properties.

The diagram illustrates the relationship between annual fuel costs and BER rating of a standard home.



Annual Fuel Costs depending on BER rating
100m² 3 bed semi-detached

Source: <https://www.seai.ie/home-energy/building-energy-rating-ber/>

⁴ EeDaPP, Final Report on Correlation Analysis between Energy Efficiency and Risk, 2020

What is a Nearly Zero Energy Building?

NZEB means a building that has a very high energy performance. The nearly zero or very low amount of energy required (for space, heating, hot water and lighting) should be met to a very significant extent by energy from renewable sources, including energy produced on-site or nearby. The NZEB standard applies to all new residential buildings receiving planning permission in Ireland after 1 November 2019 and to all homes completed after 31 December 2020, regardless of when planning was granted.

Going beyond energy efficiency to consider the relationship of broader sustainability performance with property value and likelihood of default, there are several relevant studies that illustrate the added value of considering broader environmental factors:

- 2014 Appraisal Institute supported USGBC findings based on a sample of 1.6 million homes in North America, that certified green homes have a 9% increase in selling price relative to standard
- 2014 study by Yoshida and Sugiura showed that durability and long-life design is perceived as better value than energy efficiency in Japan
- 2013 paper by Gary Pivo concluded that mortgage defaults were 32% less likely if the apartment is within a mile of protected open space; 34% less likely if the building is in a neighbourhood with at least 16 retail stores; 58% less likely if in an area where at least 30% of workers commute by subway / elevated train
- In a 2013 U.S. study of 71,000 homes, a 32% reduction in mortgage default risk was found in green homes compared to standard homes. Homes that exceeded the minimum standard to be considered “green” exhibited an even higher reduction in default risk.

Opportunity to issue green bonds

The opportunity to issue green bonds to finance or securitise green loans (which could include home retrofit loans) may also be a driver for some mortgage lenders. The benefits of green bonds to an issuer include:

- potential pricing benefits
- diversification of investor base
- positive marketing opportunities and enhanced reputation
- the potential to create synergy and develop a more strategic approach to sustainability through joining up internal teams

There are a number of green bond standards and labels that can be used by issuers, including the ICMA Green Bond Principles, the Climate Bonds Standard, the Luxflag Green Bond label.

These have varying requirements, with some requiring external verification, annual reporting etc.

The most recent addition to these standards and labels is the EU Green Bond Standard (GBS), which was published in June 2019 and updated in March 2020. Currently voluntary and non-legislative, the aim of the GBS is to enhance the effectiveness, transparency, comparability and credibility of the green bond market and to encourage the market participants to issue and invest in EU green bonds. Of particular relevance for green mortgages is that to issue a green bond in line with the EU standard, the use of the proceeds must be for assets that are green in line with the EU Taxonomy.

The environmental performance data from HPI Certification can provide eligibility to support the issue of an EU Green Bond. The HPI certification can also be used to support issuance under the Green Bond Principles and Sustainability-Linked Loan Principles set out by the International Capital Markets Association (ICMA) as well as inclusion in indices such as the Bloomberg MSCI Barclays Green Bond Index, BAML Green Bond Index and S&P Green Bond Index. The Primary Energy Use, Carbon Reduction, Water Efficiency, Waste Management and Certification Standard outlined by ICMA for ‘Suggested Impact Reporting Metrics for Green Building Projects’ can be readily captured, reported and analyzed through the HPI Certification process.

Consumer demand

Given the acute housing shortage in Ireland and the mortgage loan to value and loan to income limits imposed by the Central Bank, it is generally acknowledged that customer demand for “truly green” homes may not be as strong as in other countries, as many people simply want a home.

That noted, consumer awareness of the climate crisis and ambition to do more to tackle climate change is a strong trend in Ireland as it is elsewhere. For example:

- A 2019 survey conducted by Bank of Ireland revealed that 4 in 5 people believe that climate change will impact on them in their life time. 91% of adults are concerned about sustainability and 70% believe that financial institutions are not doing enough in terms of their sustainability efforts.
- AIB reports that their energy efficiency mortgages launched in 2019 have been very successful and customers have drawn down more than €245 million for energy efficient homes following the launch of the 5-year fixed rate discounted mortgage.

An in-depth consumer study on how people think and feel about climate change showed that ‘people who worry about climate change’ is not a niche market. In the survey by Globe Scan and IKEA of 14,000 consumers, 87% of them would like to do something about climate change. Purchasing a new home with a HPI label will be of value to those consumers.



BER Certificates

A Building Energy Rating (BER) certificate indicates a home's energy performance. It is similar to the energy label for household appliances. The certificate provides a fair comparison by rating the energy performance of a home on a scale of A-G, with G being the least efficient. However the current BER is only an indication of the energy performance of a dwelling and covers the main uses: space heating, hot water and lighting, not the consumer's electrical appliances which can account for up to an additional 50% more electricity usage. Actual energy usage will depend on how the occupants operate the dwelling and its equipment. The Irish BER scheme is managed by the Sustainable Energy Authority of Ireland. A new enhanced BER Advisory report is to be introduced in 2021.

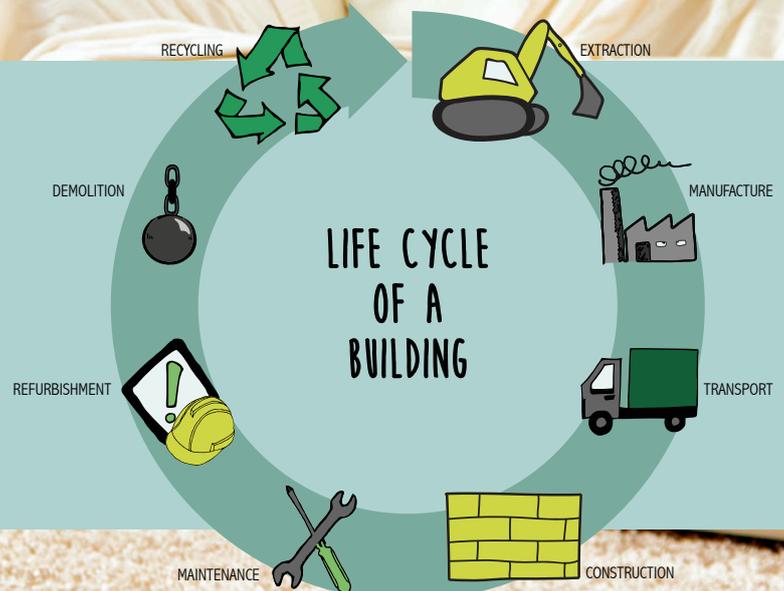
Circular Economy

The international Ellen Macarthur foundation defines the circular economy as follows: Looking beyond the current take-make-waste extractive industrial model, a circular economy aims to redefine growth, focusing on positive society-wide benefits. It entails gradually decoupling economic activity from the consumption of finite resources and designing waste out of the system. Underpinned by a transition to renewable energy sources, the circular model builds economic, natural, and social capital. It is based on three principles:

- Design out waste and pollution
- Keep products and materials in use
- Regenerate natural systems

Embodied Carbon

In the building life cycle, embodied carbon is the CO₂ equivalent associated with the non-operational phase of a building. This includes CO₂ emissions caused by extraction, manufacture and transport of materials, construction on site, maintenance, replacement, deconstruction and end of life emissions of the materials and systems that make up a building.



What is a Green Bond



A green bond is a type of fixed-income instrument that is specifically earmarked to raise money for climate and environmental projects. These bonds are typically asset-linked and backed by the issuing entity's balance sheet, so they usually carry the same credit rating as the issuer's other debt obligations.



Regulatory Drivers

Climate-related Financial Risk

Globally, financial regulators are considering the introduction of climate stress testing and mandatory climate disclosures by financial institutions. In 2015, the G20 Finance Ministers and Central Bank Governors asked the Financial Stability Board (FSB) to review how the financial sector could take account of climate-related issues.

The concern from a financial stability perspective arises from the fact that climate-related financial risks are unusual for several reasons:

- The effects are broad-based – affecting all agents in an economy across all sectors and across all geographies.
- There is a high degree of certainty that these risks will crystallise at some point in the future. But, at the same time, the nature, scale, and time horizon of these risks are highly uncertain.
- In general, the horizon over which the financial sector needs to plan to manage these risks is considerably longer than their typical business planning cycle.

The FSB established the Task Force on Climate-related Financial Disclosure (TCFD) to develop voluntary, consistent, climate-related financial disclosures that would be useful to investors, lenders, and insurance underwriters in understanding material risks. The TCFD published its recommendations in 2017 and these are applicable to individual organisations across all sectors and jurisdictions.

The TCFD identifies two categories of climate-related risk – physical risks and transition risks. The latter refer to the impact of the inevitable need to transition to a low-carbon economy. Here, risks include potential changes in policy and regulation, consumer preferences, technological disruption etc. The TCFD disclosure recommendations, which are currently voluntary, are structured around four thematic areas that represent core ways in which organisations operate. These are: governance, metrics and targets; strategy (including scenario analysis) and risk management. Importantly, the TCFD Recommendations also apply to the financial sector, including banks⁵.

Climate Stress Testing

Ensuring that the financial system is resilient to climate-related financial risks falls squarely within the mandate of financial regulators. Since the publication of the TCFD recommendations, there has been increasing engagement on the topic from regulators and supervisors globally. The Network for Greening the Financial System was established as a platform for central banks and supervisors to exchange experiences and share best practices to contribute to the development of climate risk management in the financial sector. The NGFS now has 77 central banks and supervisors across countries representing over 44% of global GDP as members, including the Central Bank of Ireland. In June 2020, the NGFS published a guidance document for central banks and supervisors providing practical information on how to use scenario analysis to assess climate risks to the economy and financial system. The purpose of climate stress testing is to give regulators and supervisors a clear understanding of how resilient the largest banks and insurers in their jurisdiction are to the physical and transition risks associated with different climate scenarios. The Bank of England announced its climate stress testing plans in 2019 and since then other regulators in France, Australia, Singapore and at the ECB have announced their plans⁶.

In a recent speech, Vasileios Madouros, Director of Financial Stability of the Central Bank of Ireland, identified the distribution of the mortgage stock by BER rating as an example of climate-related risk⁷. In practical terms, this is because a property with a poor BER rating that uses more energy will be more exposed to increasing carbon tax on energy bills. This, in turn, may impact on the homeowner's ability to repay their mortgage. See also the DBRS Morningstar commentary discussing the increasing focus on the impact of climate and environmental risks by bank regulatory authorities in Europe⁸.

Climate risk and prudential supervision

Even though the TCFD is a voluntary reporting initiative, the financial sector are more likely to adopt its recommendations given the increasing focus of financial regulators and supervisors on climate risk.

⁵ S. Breeden, Leading the Change: Climate Action in the Financial Sector, 2020

⁷ V. Madouros, Climate Change, the financial system and the role of central bank, 2020

⁸ 2020, DBRS Morningstar

⁵ TCFD, Task Force on Climate related Financial Disclosures, 2020

The NGFS membership is calling for banks to assess, report and mitigate their environmental and climate-related risks. The UK Prudential Regulatory Authority is one of the first movers in this regard. It has published guidance to the banking sector setting out its expectation that firms under its supervision should fully embed their approach to managing climate-related financial risks by the end of 2021⁹. In May 2020, the ECB published a guide for consultation that explains how it expects banks to safely and prudently manage and disclose climate-related risks¹⁰.

In July 2020, in response to the consultation on the renewed EU Sustainable Finance strategy, the Central Bank of Ireland stated that it would seek to embed climate risk into prudential supervision. It says this will involve engagement with regulated firms to ensure that they identify relevant exposures and are incorporating climate-related risks into their risk management processes¹¹.

The HPI certification will enable these practices by providing robust environmental performance data. A HPI certification will reduce transition and physical climate risk for banks who are facing increasingly higher regulatory standards, industry demands and higher expectations from investors who seek more ambitious levels of environmental performance.

Green Supporting Factor

The 2018 EU Sustainable Finance Action Plan included a specific action to explore the idea of a “green” supporting risk-weighting factor as an approach to recognise the lower risk associated with low carbon assets. This proposal has been extensively discussed in policy, regulatory and banking circles. Those in favour refer to the positive systemic value of green projects and activities as an approach for risk management. Those against put forward the argument that capital requirements must remain risk-based and that green projects are not necessarily lower risk¹².

Recent Central Bank of Ireland commentary states that:

“Our strong view therefore remains that any changes to the prudential framework must first be underpinned by an accurate assessment of climate-related risks in order to ensure the framework remains risk-based. The Bank is supportive of measures that develop accurate risk profiling and asset pricing in order to assess financial institutions’ exposure to non-green and brown assets.”¹¹

The current position is that the European Banking Authority has been tasked by the European Commission to research and report on this topic by 2025¹³. In any case, any potential green supporting factor in an EU context would nearly certainly have to be EU

⁹ Bank of England, Enhancing banks’ and insurers’ approaches to managing the financial risks from climate change, 2019

¹⁰ European Central Bank, Public consultation on its guide on climate-related and environmental risks, 2020

¹¹ Central Bank of Ireland, Consultation on the Renewed Sustainable Finance Strategy, 2020

¹² NGFS, A Status Report on Financial Institutions’ Experiences from working with green, non-green and brown financial assets and a potential risk differential, 2020

¹³ European Banking Authority, Action Plan on Sustainable Finance, 2019

Taxonomy compliant. New homes built to HPI certification should meet this requirement.

Reputational Factors

The introduction of innovative green financial products is seen as positive by stakeholders, both among policymakers and society more broadly. There are therefore associated benefits for mortgage lenders in the market from a brand perspective, including the ability to attract and retain new customers and talent.

Specific to the banking sector, several banks serving the Irish market have now signed up to the Principles of Responsible Banking (PRB)¹⁴. Launched in 2019, this is the UN-supported initiative that sets the global standard for what it means to be a responsible bank that is creating value for both shareholders and society. The Principles provide the framework for a sustainable banking system and help the industry to demonstrate how it makes a positive contribution to society.

Under the PRB, banks commit to three steps, namely to:

- analyse the institution’s current impact on people and the planet
- set targets where they have the most significant impact, and implement them
- publicly report on progress.

Signatory banks commit to aligning their business with – and achieving – ambitious targets that contribute to global and national sustainability goals. There is a robust governance framework, with signatories held to account against their commitments through an annual review of their individual progress. Banks that cannot evidence the necessary changes will lose their status as a signatory. The Principles are therefore expected to drive concrete and ambitious sustainability targets and actions by banks in order to deliver on their commitments.

“By explicitly specifying the environmentally beneficial projects to which the bond proceeds are directed, Green Bonds allow investors to assess and direct capital to environmentally sustainable investments”

- International Capital Markets Association. (March 2019).
The Green Bond Principles Impact Reporting Group:
Suggested impact Reporting Metrics for Green Building Projects

Available at: <https://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/Resource-Centre/Final-Green-Buildings-Reporting-Metrics-March-2019-including-Reporting-Templates-200319.pdf>

¹⁴ UNEP FI, Principles of Responsible Banking, 2019

About the Home Performance Index Standard and Certification Process

To support mortgage lenders in developing their understanding of the HPI certification, the following sections in the handbook provide further details on:

- The difference between an energy efficient home and a HPI certified green home
- The other green criteria considered in awarding HPI certification
- Comparison of HPI with well-known standards and certification schemes, including BREEAM, LEED, Well, NZEB, PassivHaus and Level(s)
- The HPI award process

The difference between an energy efficient home and a HPI-certified green home

There is a difference between a home that is energy efficient and a certified “green home”. To understand the objective of the HPI certification, it is important to first understand this distinction.

The national rating system for energy efficiency of dwellings is the BER rating system. Under current Irish building regulations, all new homes are generally built to A2 BER rating. This is a legal requirement and compulsory. A BER is a theoretical calculation of the energy usage of a home when built, i.e. it doesn't take into account real energy usage based on actual occupant behaviour. A good BER usually means less energy used, less carbon emitted and lower energy bills. However this may not be the case as it may not perform as well as it should, for example the mechanical ventilation installed incorrectly or poor workmanship on the insulation or air tightness membrane. HPI certification records the quality assurance and how homes really perform.

The HPI certification system allows owners and lenders to go beyond energy efficiency and access reliable information on wider sustainability criteria of a new home, including indoor air quality, water efficiency, embodied carbon, and location etc. It also includes criteria around flood risk, circular economy, and ecosystems. The HPI certification is already in line with net-zero ambitions and with the Paris Agreement.

The other green criteria considered in HPI

To receive HPI certification, a new home must achieve a BER A2 rating and also:



Connected Location: Near existing services and transport links, close to existing community facilities and amenities

Health and wellbeing: Indoor air quality, Daylighting, Sound levels, Overheating, Radon, VOC and Water testing, Walkable sites

Economic factors: Reduced energy bills, Lifetime adaptable home, Flood risk (insurance and physical risks)

Environmental: Dwelling size, Lower energy and carbon emissions, reduction of embodied carbon

Construction quality: Airtightness, Thermal Bridging, Oversight, Design and construction team skills, Commissioning, Post occupancy evaluation, Handover manual

See Appendix II for further detail on the HPI certification criteria.



12 points to consider in a Green Home

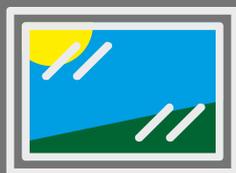
01 / Healthy and clean air inside

If your home is not ventilated well, there may be a build up of pollutants, damp and mould. If outdoor air is polluted, it requires filtration and de-humidifying to make it good for your health and wellbeing.



02 / Bright

We spend 87% of our time indoors so we'll feel better if our homes are bright. Exposure to daylight helps us sleep better at night and improves our mental wellbeing. Sitting in a sunny place in your home boosts vitamin D levels which is good for you.



03 / Good Energy Performance

BER is an energy efficiency rating based on energy and carbon emissions on your whole house. It's a calculation of energy usage of heating, hot water, ventilation and water consumption. A good BER usually means less energy used, less carbon emitted and lower bills.



04 / Low embodied carbon

Even before a building is occupied large amounts of CO₂ is already emitted. Embodied carbon is the carbon emitted during the extraction, transportation, manufacture and installation of building materials. Transparency on this life cycle helps designers specify materials with low embodied carbon that can reduce the global warming impact.



05 / Connected location

A network of schools, shops, public transport and amenities are located nearby, away from the risk of flooding. If you can walk, cycle or catch a bus easily to work, it gives you more time for other things – improving the quality of your life.



06 / Acoustic comfort - reduced noise intrusion

Quietness and minimal noise intrusion contribute to our sense of security, privacy and comfort which increases our physical and mental health.



07 / Water quality testing and water saving

Water from your taps are tested for chemical and microbiological quality, hardness and odour to ensure it is safe. The larger the volume of hot water from your tap the more energy you use. In green homes, water saving devices are installed that give a sensation of a high coverage of water but provide less water per minute. The difference can be as much as 40 litres per minute.



08 / Reduced waste

The construction industry in Europe produces 30% of all waste generated. Much of the materials from an old building could be recovered and recycled if it was considered early in the design stage. A green home is designed to encourage recovery, reuse,



09 / Low Volatile Organic Compounds (VOCs)

Harmful gases known as VOCs can be emitted from building materials, furniture and paints in a process called off-gassing. Breathing in VOCs can increase the risk of respiratory illnesses, allergies and cancer.



10 / Safe from Radon

Radon gas may slip through tiny cracks or holes in the floors and walls of your home, causing harm to people inside. The EPA Ireland recommends that all householders test their homes for Radon leaks. Radon is a natural radioactive gas found in igneous rock, soil or well water.



11 / Biodiversity friendly

Natural habitats are lost when land is used for building homes. Improving the ecological value of an area encourages native plants and animals to flourish. This sustains healthy ecosystems that improve human health.



12 / Lifetime Accessible Homes

Accessible for reduced mobility and adaptable throughout the different stages and changing needs in your life time.



Comparison of HPI with other well-known green building certification/ rating schemes

The diagram below shows how HPI compares with other standards, frameworks and certification systems for green buildings.

The HPI Award Process:

The advisory and certification process works to ensure a real estate investor/developer successfully meets the program's criteria. The process includes a close collaboration between the IGBC, the investor/developer seeking certification for their project, and the project team and solution providers who will undertake the necessary actions. The steps involved include:

1. Prior to construction starting, to ensure that the HPI criteria are reflected in the design, the development is registered with the IGBC – a registration fee is payable at this point by the developer
2. Post completion, the assessment is completed by the designated HPI assessor, who can be appointed either by the investor, client or the IGBC
3. Assessment is submitted with all the evidence required for each criteria to the certification body, i.e. the IGBC, via an online platform, with the appropriate fee
4. Assessment is reviewed by the certification body for completeness and audited for compliance
5. Further information is sought where missing
6. On-site inspection may be carried out
7. A recommendation is made to the IGBC audit committee for award of certification and a Certificate is issued once approved by the Independent Audit Committee.



Must all criteria be met to achieve HPI certification?

The levels of award will be set to reflect good and best practice in Ireland, "Certified" and "Gold" respectively. This means that not all criteria need to be met to achieve certification. For each level, mandatory performance standards in certain indicators must be achieved in addition to the required score. HPI will evolve over time as practices evolve.

What evidence must be submitted by the developer?

The onus is on the design team to provide clear evidence in support of each indicator for IGBC assessment. Only relevant information that clearly identifies the points that have been achieved will be accepted. Submitting excessive levels of drawings, specifications, or other documentation that is not specific to assessment will be considered in the same manner as if no evidence has been provided.

	HPI	BREEAM	LEED	EDGE	nZEB	Passivhaus	LEVEL(s)*
Energy Efficiency Energy use + CO ₂ emissions	●	●	●	●	●	●	●
Energy Savings	●	●	●	●	●	●	●
Indoor Air Quality Ventilation, VoCs, Radon	●	●	●	●	○	○	●
Water Efficiency Water quality + Testing	●	●	●	●	○	●	●
Daylight Levels Health + Wellbeing	●	●	●	●	●	○	●
Acoustic Comfort Wellbeing + Comfort	●	●	●	●	●	●	●
Embodied Carbon	●	●	●	●	●	●	●
Improving Biodiversity	●	●	●	●	●	●	○
Universal Design Lifetime Homes	●	●	●	●	●	●	○
Connected Location Transport links, facilities, amenities	●	●	●	●	●	●	●
Lifecycle Analysis	●	●	●	●	●	●	●
Circular Economy Design for reuse	●	●	●	●	●	●	●
Nationally Adapted Data fed back into national policy	●	●	●	●	●	●	○

● Fully considered ○ Partially considered ● Not considered

* An EU framework from the European Commission. More information at https://ec.europa.eu/environment/topics/circular-economy/levels_en

How do HPI assessors qualify and how many are there?

There are 60 HPI assessors in Ireland who have attended the HPI assessor training, have completed and passed an assessment and case study, and attend CPD to keep up to date with new developments.

What are the typical costs for the Project Developer?

The program is designed to expedite and encourage widespread adoption of greener industry practices. The program has a very modest price structure designed to provide the necessary resources to administer a high-quality certification and auditing process while not causing an undue burden on the partners participating in the program.

In Ireland, the overall project costs do not necessarily increase as a result of certification. Depending on the level of certification, HPI or Gold HPI costs can increase by 0.1% - 0.3% [SISK 2021; KSN 2021]. The more the design team collaborate and plan at the early stages the lower the incremental cost.

For example, in Silken Park the design team worked with the developer and contractor to create a fully engineered insulated foundation that saved costs and time on site. In fact, the CEO of Durkan Residential stated that he would not be building sustainable homes if it did not make economic sense.

There is no cost to participate to the homebuyer. They are, in fact, rewarded substantially through a lower monthly cost of ownership and better quality, healthier home than the standard offer.

For Residential Investors/Developers, the following table includes the total fees to certify a residential project.

Certification Fees	
1 - 100 units	€50 per unit
101 - 500 units	€24 per unit
501+ units	€16 per unit

Registration Fees	
1 - 5 homes	€120
5 - 20 homes	€150
20 - 100 homes	€175
100+ homes	€200



HPI certified homes at George's Place, Co. Dublin delivered under the Rapid Delivery Framework built by SISK for DLRC

“ Home Performance Index helps ensure that we apply best practice and leave a legacy of quality housing for future generations, while aligning with a commitment to net zero carbon by 2050. ”

- Ali Grehan City Architect, Dublin City Council

“ Home Performance Index brings 35 sustainable indicators in metric form, easy to understand, easy to implement and cost effective in order to set a baseline to assess how good our practice is in designing for climate change. ”

- Simon Keogh Senior Architect, COADY Architects

“ Environmental considerations are seen to improve the credit profile of mortgages and the deal structures they support. Favorable performance is said to be attributable to higher credit quality debtors, greater disposable income from reduced energy costs and lower interest expenditure if lenders offer discounted financing for energy efficient properties. Consistent definitions of environmentally performant buildings will improve the analysis of green mortgages relative to conventional mortgages backing European RMBS, covered bond and securitized product deals. ”

- Fitch Ratings. (30 November 2020). Data and Disclosure are Key for Green Mortgage Analysis. <https://www.fitchratings.com/research/structured-finance/covered-bonds/data-disclosure-are-key-for-green-mortgage-analysis-30-11-2020>

Responsibilities and Benefits of using Home Performance Index as eligibility for a green mortgage

See below proposed responsibilities and benefits for each stakeholder involved. Effectively the participating mortgage lender relies on the HPI certification as proof of eligibility for the discounted green mortgage.



	RESPONSIBILITIES	BENEFITS
Financial Institutions	<p>Responsible for all financial due diligence associated with the normal underwriting process.</p> <p>Agree to accept the Certifier's criteria.</p> <p>Offer a substantive interest rate reduction commensurate with default risk reduction and enhanced long term asset value of Green Mortgage - qualified homes.</p>	<p>Enables higher initial purchasing power of Home Buyer.</p> <p>Enables sharing of cost savings from lower risk with Home Buyer via discounted mortgage.</p> <p>Provides introduction of a new financial product with predictable costs and revenues allowing differentiation in a highly competitive banking market.</p> <p>Alignment with social and environmental responsibility objectives.</p>
Home Buyer	<p>Invest in quality, energy efficiency and green home performance.</p>	<p>Higher disposable income from energy & other costs savings applied to mortgage repayment.</p> <p>Experience health benefits associated with Green Homes.</p> <p>Satisfaction knowing the home/ investment is environmentally friendly, sustainable and high quality.</p>
Project Developer	<p>Implement energy efficiency & green criteria.</p> <p>Sell energy efficient / green homes at equal or lower total monthly cost of ownership.</p> <p>Deliver homes with reduced risk of mortgage default & higher long-term asset value.</p>	<p>Provides market differentiation through green performance certification.</p> <p>HPI certified sustainable homes providing a higher quality of life for occupants.</p> <p>Increased demand for a unique market offering and competitive advantage.</p>
Certifier and Energy Auditor	<p>Provide assurance long term energy performance & other cost savings from green features will be delivered.</p> <p>Ensure residential projects meet strict energy performance, green and quality criteria.</p>	

Zero Carbon definition for new homes within Home Performance Index

100% of the operational energy use associated with the project must be offset by new on-site or off-site renewable energy. 100% of the embodied carbon emissions impacts associated with the construction and materials of the project must be disclosed and offset.



About the Irish Green Building Council

The Irish Green Building Council is an NGO with over 200 members across the entire value chain of the built environment from universities and transnational companies to contractors and developers. Our aim is to transform the Building industry to become the best in class in sustainable building practices. We lead with tools and courses that are easy to understand, use and provide credible metrics for measuring progress towards truly sustainable buildings. As a partner in the EU SMARTER initiative we expanded our network into green finance for green certified homes which drew tremendous interest from developers.

Call us today to become a Paris-proof, EU taxonomy aligned investor or finance provider - we'll be more than happy to answer any questions you may have and support you on your steps towards world class credible sustainable practices.



Call Pat or Johanna on (01) 681 5862 or email pat@igbc.ie or johanna@igbc.ie



“ *The level of sustainable covered bond issuance is said to be impacted by matters concerning mortgage collateral meeting the criteria of issuers’ green or sustainable frameworks, eligibility requirements for covered bond collateral pools and the ability for covered bond issuers to gather an adequate volume of eligible green residential mortgage assets sufficient to issue green covered bonds. The EU Taxonomy on Sustainable Activities is seen as one of the most important regulatory developments impact sustainable covered bond issuance.* ”

- S&P Global Ratings. (1 December 2020).
Sustainable Covered Bonds: Assessing The Impact Of COVID-19.



FAQs

What is the vision for the use of the HPI label by financial institutions?

The vision is that

- People live in the best quality sustainable homes
- Financial institutions provide incentives to enable the shift to align with the requirements of the Paris Agreement
- Investors / developers protect their residential investments with certification in line with ESG requirements

Promotion of a new green mortgage product with Home Performance Index as the standard would ensure aligning with Paris Agreement and the EU taxonomy.

What is the typical cost to the financial institution for using the HPI label to confirm eligibility for a green mortgage product?

There is no cost to the financial institution.

Is data or data sharing required?

No data or data sharing from the financial institution is required before, during or after the project.

How many properties are going to have this certification?

Between January 2019 and June 2020, 10% of all new homes in the development process in Ireland had registered for the Home Performance Index. The split of homes applying for the HPI label is 50:50 between social housing and private homes. The Land Development Agency and Dublin City Council plan to build up to 6,000 sustainable homes in the next two years that go well beyond building regulations, with a large proportion of those expected to apply for the HPI label.

The National Planning Framework 2040 states that the 5 main cities are projected to grow by 50% by 2040 and Ireland must build 500,000 new homes by 2040. Overall, the IGBC estimates that up to 40% of new homes developed over the next 5 years will apply for the HPI label. It is anticipated that a large supply of HPI-certified projects will require financing over the coming years.

What added value does HPI have if a financial institution already have a green mortgage based on energy efficiency criteria of A2 and A3?

As of 2019, all new homes must be built to an A2 standard under the building regulations and therefore we would question the reason for rewarding a building that just meets building regulations when we could go further to build to the Paris Agreement and incentivize a higher standard. HPI certification differentiates new homes that are future-proofed for climate



change and therefore suitable for new green mortgage products aligned with the EU taxonomy.

HPI-certified homes could be branded as a 'Climate Action' mortgage product to target the 87% of the market who accept the evidence and want to contribute to tackling the effects of climate change.

Can the IGBC make links with developers to discuss potential HPI projects?

IGBC have a list of developers interested to be part of the Certified Green Home Green Mortgage programme for their new homes and is delighted to make introductions.

What should a mortgage lender do next if interested?

Contact the IGBC to discuss and we can take it from there.

Contributors

Johanna Varghese

Programme Manager, Irish Green Building Council

Pat Barry

Co-founder and CEO, Irish Green Building Council

John Fingleton

Certification Program Manager, Irish Green Building Council

Laura Heuston

Co-founder and Director, Sustainability Works

Ted Kronmiller

Financial Expert, Sustainability Strategy and Capital Markets

Steven Borncamp

Project Director, SMARTER Initiative and Romania Green Building Council

Michael Carney

Intern at Irish Green Building Council and final year University of Oregon

Appendix I: EU Taxonomy - Criteria relating to Construction of New Buildings

The Taxonomy Report published by the EU-appointed Technical Expert Group (TEG) in March 2020 adopts a science-based approach and defines what is green based on technical criteria. To align with the Taxonomy, an economic activity must “substantially contribute” to one of six environmental objectives¹⁵ and must do no significant harm (DNSH) to any other. Generally, the DNSH measures are already addressed by regulation in a particular sector. There are also minimum social and governance standards that must be met.

See the chart below for the relevant criteria that must be satisfied for a new building to be regarded as “green” for the purposes of the draft EU Taxonomy Regulation¹⁶.



It should be noted that, as the rest of the technical criteria under the Taxonomy are developed, there are expected to be criteria for new builds relating to flood risk, circular economy, and ecosystems. Recommendations for future developments include regular review and tightening of the main criteria over time and the introduction of embodied carbon thresholds by 2025.

BUILDING CATEGORY	MAIN CRITERIA	DO NO SIGNIFICANT HARM CRITERIA
New Builds	<ul style="list-style-type: none"> Currently, 10% improvement on national Nearly Zero Energy Building (NZEB) requirements Certified using EPC Large buildings (>5,000m²) must be tested for airtightness and thermal integrity Large buildings' (>5,000m²) Global Warming Potential calculated for each stage in life cycle 	<ul style="list-style-type: none"> Minimum requirements for water appliances Minimum 70% of non-hazardous construction and demolition waste is prepared for re-use, recycling and other material recovery No asbestos Site has to be checked to ensure it isn't contaminated Environmental Impact Assessment complete Assess and reduce material physical climate risks

“ Climate-related and physical transition risks expose financial institutions to potential stranded assets across a wide range of sectors in the global economy. ”

- Network for Greening the Financial System. (10 September 2020). Occasional Paper. Case Studies of Environmental Risk Analysis Methodologies.

Available at: <https://www.ngfs.net/en/case-studies-environmental-risk-analysis-methodologies>

¹⁵ The 6 environmental objectives defined in the Taxonomy are:

- (i) climate change mitigation
- (ii) climate change adaptation
- (iii) sustainable use and protection of water and marine resources
- (iv) transition to a circular economy, waste prevention and recycling
- (v) pollution prevention and control
- (vi) protection of healthy ecosystems

¹⁶ EU Commission, Consultation on the Taxonomy, 20 November 2020.



Image credit: Sisk

NDA, Dept of Housing, Bank of Ireland, European Investment Bank, Macquarie Capital and Korea Development Bank back first social housing PPP in Ireland. EIB finances 50% of 534 new homes built in Dublin, Louth, Wicklow and Kildare in the first phase of Ireland's first social housing Public-Private Partnership following agreement for €120 million of new investment

Appendix II: Home Performance Index Criteria

Environmental		Max points	%
EN1.0	Land use	3	1.5
EN2.0	Residential density	6	3
EN3.0	Surface water run-off	3	1.5
EN4.1	Internal water use	7	3.5
EN4.2	External water use	1	0.5
EN5.0	Ecology	6	3
EN6.1	Energy in use	8	4
EN6.2	Carbon in use	8	4
EN7.0	Embodied impacts of homes + LCA	14	7
EN8.1	Waste Management during Construction	6	3
EN8.2	Organic & recycled Waste Management	3	1.5
EN9.0	Responsible Procurement of Timber	3	1.5
EN10.0	Environmental Product Declaration	4	2
EN11.0	Transport impact* generated by SL	11	5.5
EN12.0	Dwelling Size Adjustment Factor	- 4	- 2
SUBTOTAL		83	41.5

Health & Wellbeing		Max points	%
HW1.0	Indoor air quality Ventilation	8	4
HW2.0	Daylighting	6	3
HW3.1	Airborne sound insulation - Walls	2	1
HW3.2	Airborne sound insulation - Floors	2	1
HW3.3	Impact sound insulation - Floors	2	1
HW3.4	Internal sources of Noise	2	1
HW4.1	Summer comfort risk of overheating	4	2
HW4.2	Winter comfort radiant asymmetry	1	0.5
HW5.0	Low VOC specification and testing	3	1.5
HW6.0	Radon testing	2	1
HW7.0	Water Quality	1	0.5
HW8.0	Walkable Neighbourhood* generated by SL	9	4.5
SUBTOTAL		42	21

Economic		Max points	%
EC1.0	Net Space Heat Demand	8	4
EC2.0	Energy Costs	6	3
EC3.0	Transport Costs* generated by SL	8	4
EC4.0	Universal Design	4	2
EC5.0	Smart Monitoring	4	2
EC6.0	Energy Labeled Goods	4	2
EC7.0	Flood Risk	4	2
SUBTOTAL		39	19

Quality Assurance		Max points	%
QA1.0	Quality of the building shell - air infiltration	6	3
QA2.0	Quality of the building shell - thermal bridging	6	3
QA3.0	Quality of oversight and testing	4	2
QA4.0	Construction Team Skills	4	2
QA5.0	Design Team Skills		
QA5.1	Design Team Skills	4	2
QA5.2	Design Team Planning	1	0.5
QA6.0	Commissioning of Services	4	2
QA7.0	Post Occupancy evaluation	4	2
QA8.0	Consumer information and aftercare	4	2
SUBTOTAL		37	18.5

Sustainable Location		%
SL1.0	Options for Transportation	*
SL1.1	Accessibility to train station	0.6
SL1.2	Accessibility to public transportation stop	0.6
SL1.3	Availability of low emission transport	0.6
SL1.4	Availability of walking and bicycle paths	0.9
SL2.0	Access to Amenities	*
SL2.1	Restaurants	0.9
SL2.2	Local shops	0.9
SL2.3	Parks and open spaces	0.9
SL2.4	Education Facilities	2.25
SL2.5	Public administration facilities	0.9
SL2.6	Medical care facilities	0.9
SL2.7	Sport facilities	0.9
SL2.8	Leisure facilities	0.9
SL2.9	Other services	0.9
SUBTOTAL		12.5



“ Home Performance Index provides a high level of transparency with respect to ESG criteria driving lower investment risk. It is aligned with the EU Taxonomy considered important for investors and tailored to the Irish residential sector, with worldwide recognition by the WELL building institute and a 5-star rating from the European Commission for good practice and transferability. ”

- Ciaran O’Leary Head of Sustainability, i3PT

Appendix III: Glossary

BER

A Building Energy Rating [BER] certificate shows a home's energy performance and is similar to energy label for household appliances. Certificate rates the energy performance of a home on a scale of A-G.

Circular Economy

The Circular Economy builds on economic, natural and social capital and is underpinned by a transition to renewable energy sources, decoupling economic activity from consumption of finite resources based on three principles: Design out waste and pollution; Keep products and materials in use; Regenerate natural systems.

DNSH

Do no significant harm. In the EU taxonomy economic activities must contribute substantially to one of the six environmental objectives defined in the Regulation; do no significant harm to any other environmental objectives; comply with minimum social safeguards and comply with Technical Screening Criteria.

ECB

European Central Bank.

EeDaPP

Energy efficiency data protocol and portal is an EU H2020 funded initiative that aims to create a standardised energy efficient data protocol and portal.

Embodied Carbon

Embodied carbon is the emissions associated with all activities of procuring, mining, harvesting raw materials, transforming these materials into construction products, transporting them to site and incorporating them into a building and subsequently maintaining, replacing and removing and disposing at the end of their life. 11% of global emissions are associated with embodied CO² emissions from new construction.

EU Taxonomy

The EU taxonomy is a classification system – a list of economic activities considered environmentally sustainable for investment purposes and provides clarity on environmental sustainability to investors, financial institutions, companies and issuers enabling informed decision making to foster investments in environmentally sustainable activities.

FSB

Financial Stability Board is an international body that monitors and makes recommendations about the global financial system.

ICMA

The International Capital Market Association is a not for profit membership organisation that serves the needs of its 600 member firms active in global capital markets.

Level(s)

Level(s) is the EU initiative that joins up sustainable building thinking across the EU by offering guidance on the key areas of sustainability in the built environment and how to measure them during design and after completion.

NGFS

The Network of central Banks and Supervisors for Greening the Financial System [NGFS] launched at the Paris One Planet Summit in 2017 is a group of Central Banks and Supervisors willing, on a voluntary basis to share best practices and contribute to the developments of environment and climate management in the financial sector and to mobilise mainstream finance to support the transition toward a sustainable economy.

NZEB

Nearly Zero Energy Buildings means a building with a very high energy performance – nearly zero or very low amount of energy required to be covered to a very significant extent by energy from renewable sources including energy from renewable sources produced on site or nearby.

Paris Agreement

The Paris Agreement is a landmark international accord that was adopted by 196 countries at COP21 in 2015 to address climate change and its negative impacts. The agreement aims to substantially reduce global greenhouse gas emissions to well below 2, preferably to 1.5 degrees Celsius compared to preindustrial levels. Countries must reach global peaking greenhouse gas emissions as soon as possible to achieve a climate neutral world by 2050.

PRB

The Principles for Responsible Banking are a framework for a sustainable banking system to ensure that signatory banks' strategy and practice align with the vision of society has set out for its future in the Sustainable development Goals and the Paris Agreement. Over 200 banks have joined this movement for change and the framework embeds sustainability at the strategic, portfolio and transactional levels across all business areas.

TCFD

The Task force on Climate related Financial Disclosures was established by the Financial Stability Board to develop recommendations for more effective climate related disclosures

to promote more informed investment, credit and insurance underwriting decisions and enable stakeholders to understand the concentrations of carbon related assets in the financial sector and the financial system's exposures to climate related risks. The TCFD is engaged in helping companies implement the recommendations and promoting advancements in the availability and quality of climate related disclosure.

“ We at Sisk Living, are committed to improving our environmental performance at every level of our business. From project commencement to delivery, quality and sustainability are key drivers for us. Our goal is to add value in communities in which we work. Sustainability implemented locally, creates positive change, assists in the delivery of Ireland's climate goals and a sustainable future for us all. A key aspect of raising awareness regarding the quality and sustainability of homes is achieving certification and recognition with the national label Home Performance Index, from the Irish Green Building Council. ”

- Ivan McCarthy Project Director, Sisk Living



Appendix IV: Case Studies

Home Building Finance Ireland

Home Building Finance Ireland give residential developers a financial incentive using Home Performance Index Certification.

Home Building Finance Ireland (HBFI) launched a new green loan product offering a discount of up to 0.5% on loans for developments certified Home Performance Index certification. The HBFI Green Funding Product is the first Irish green financial product fully aligned to the Paris Agreement and EU taxonomy regulations.



Cherrywood Town Centre

Hines uses Home Performance Index to prove Green credentials in Cherrywood town centre residential development.

Hines used Home Performance Index in the development of 1316 apartments in order to protect the long-term value of the 1-billion-euro asset. Home Performance Index is globally recognised for its WELL Community Standard by the International Well Building Institute.



Image credit: Hines

Dun Laoghaire Urban Infill

Sisk Living demonstrate their strong sustainability standards in an urban infill scheme for Dun Laoghaire County Council with Home Performance Index.

When Sisk Living were appointed as Design Build contractors for a small urban infill scheme of 12 houses, they brought the same approach of high standards to residential development as they do in commercial development and used Home Performance Index to demonstrate an excellence standard of construction, living and environmental criteria.



Image credit: Mary-Louise Halpenny

Comhar Housing

Comhar Housing reach financial close on Ireland's first PPP for social housing financed by European Investment Bank. Home Performance Index used on over 500 homes.

Comhar Housing is a consortium comprising Macquarie Capital (Macquarie), John Sisk & Son Ltd. and Choice Housing Ireland Limited. The director of the NDFA stated "This is a landmark development in providing new social housing in Ireland. It is the first time we have used the PPP model for social housing, opening up an important new avenue for delivering the Irish State's social housing requirements. It is also the first time in Europe that the EIB has financed a PPP social housing scheme."



Image credit: Sisk

Dublin City Council

Dublin City Council demonstrate strong sustainability standards with Home Performance Index.

In 2019 Dublin City Council announced Home Performance Index would be specified as the standard in public housing tenders to ensure a legacy of high standards of construction, high quality of health and wellbeing and protection of the environment.



Image credit: Dublin City Council

Land Development at Naas, Co. Kildare

Land Development Agency considers Home Performance Index certification on a 4-acre site in Naas, Kildare.

An estimated 200+ homes are planned in Kildare through the SHD mechanism. Home Performance Index is being considered to demonstrate excellence in sustainability standards for the development.



Image credit: Land Development Agency

Platinum, Gold and Silver Members

Platinum Members



Gold Members



Silver Members



The Irish Green Building Council

19 Mountjoy Square East,
Dublin 1
D01 TF76

Tel: (01) 681 5862

Email: pat@igbc.ie or johanna@igbc.ie

Web: <https://igbc.ie>



Home Performance Index is recognised by GRESB as a full points certification and the International WELL Building Institute for its WELL Community standard.



This handbook is part of a project that has received funding from European Union's Horizon 2020 program under grant agreement 847141.

Design and layout:
Paul McDonnell - me@paulmcdonnell.ie