



Green Bond Reporting 2021.

(as of July 2021)

Introduction

Climate change is considered one of the most important challenges of our time. The world's greatest environmental and social consequences of global change, such as population growth, energy security, biodiversity loss and inadequate access to drinking water and food, are all closely linked to climate change. The transition to a lower-carbon economy is crucial in this regard. With the signing of the Paris Agreement, the global community at the international level agreed to limit the global temperature rise in this century to well below 2 degrees Celsius above the pre-industrial level. With the adoption of the 17 Sustainable Development Goals (SDGs) of the United Nations, the world has set itself a global framework with a common direction and measures to solve the global challenges until 2030.

Banks' operations, products and services have an impact on the environment and society. The financial sector has an important role to play in the transition to a lower-carbon economy. Banks have a social, environmental and economic responsibility to understand and manage these issues as part of their business. Norddeutsche Landesbank – Girozentrale – (hereinafter referred to as “NORD/LB”) accepts these framework conditions and the expectations placed on it in its role as a commercial bank. NORD/LB wants to make its contribution so that the climate targets of the German government can be achieved. As a bank and institution under public law, NORD/LB bears a particular responsibility for economic development and social cohesion. For this reason, NORD/LB is determined to support its customers in preparing for success in an increasingly carbon-constrained world.



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Sustainable References



Logistics portfolio

Seven German locations

Energy performance certificates with high energy efficiency

[Green Bond-ability](#)

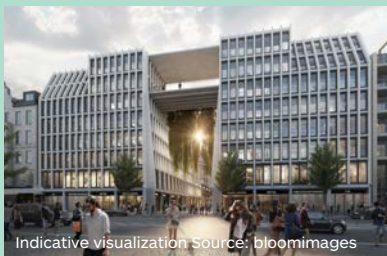


Viktoria Karree

Bochum

Energy performance certificates with high energy efficiency

[Green Bond-ability](#)



Am Tacheles

Berlin

LEED Platin (expected)

[Green Bond-ability](#)

Indicative visualization Source: bloomimages



Woodwork

Paris

HQE Très Performant (expected)

[Green Bond-ability](#)

Source: L'Etoile Properties

In the business segment of commercial real estate financing, NORD/LB accompanies the spatial design of many cities as a financing partner. Quality, professionalism and sustainability of the financing project play a major role in the selection of projects. Here the bank sets itself the goal of making the real estate industry ecologically sustainable. The financing of energy-efficient buildings is the essential core aspect. By financing such green buildings, the bank actively contributes to the reduction of greenhouse gases. NORD/LB is aware that its actions have an influence on various stakeholders. By supporting the reduction of CO₂ emissions in this way, the bank fulfils its responsibility towards its customers, employees, owners and society. In this way, NORD/LB contributes in particular to the EU taxonomy goal of mitigating climate change. Furthermore, the aim is not to cause significant harm to any of the other five EU taxonomy objectives (“Do no significant harm”). By granting green loans in the commercial real estate financing business segment, the necessary sustainability aspects in NORD/LB’s business activities are also promoted on the assets side and thus ensured. The focus is on the following objectives:

Examples from sustainability management:

- // Improving the portfolio quality
- // Completion of the sustainability concept
- // Completing the green value chain

In addition, the Bank’s refinancing is also designed to be ecologically sustainable. By issuing Green Bonds, the Bank also meets the objectively measurable increasing need of investors to invest financial resources in an ecologically sustainable manner. By issuing Green Bonds, the Bank, as a financial intermediary, takes into account our society’s goal of reducing global warming. The Green Bond Framework provides the basis for the issuance of Green Bonds with the strict secondary condition of implementing the Green Bond Principles – always based on the current version. It creates the desired and necessary transparency for investors in this type of product.



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- 3/** **Asset Pool Reporting**
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1/ **NORD/LB's Green Bond Programme**

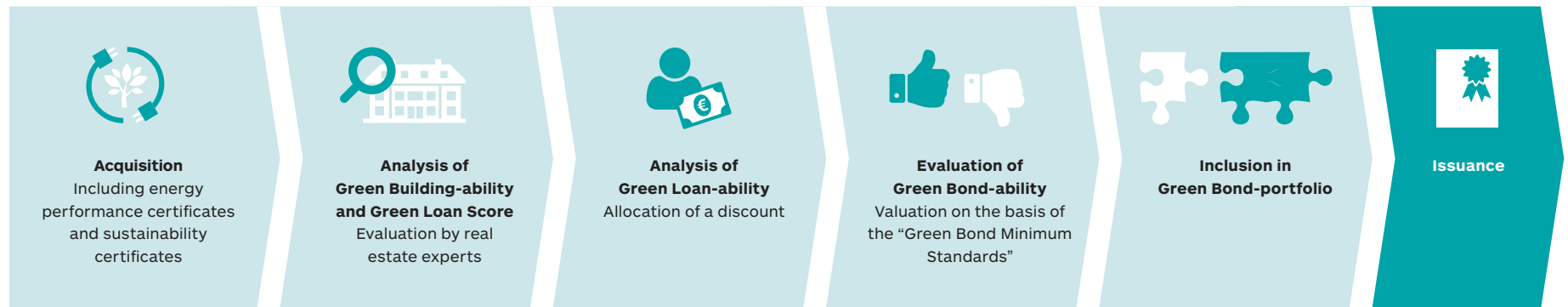
When issuing Green Bonds, NORD/LB funds itself by issuing bonds (bearer bonds or registered bonds), loans (Schuldscheindarlehen) or deposits (Termingelder) whose raised funds are used exclusively to finance energy-efficient (i.e. green) buildings, such as new buildings, replacements of old buildings, project developments, certified portfolio financing and renovation work to improve a building's energy efficiency.

NORD/LB is an official member of the Green Bond Principles (GBP). NORD/LB assigned ISS ESG (formerly oekom research AG) to review the implementation of the Green Bond Principles and the sustainability of the Bank's overall Green Bond programme.

The energy efficiency of a property to be financed, and therefore its suitability as an asset for a Green Bond, is evaluated in a multi-stage process.

The employees in the lending department (Credit Management) record all the necessary data (such as energy performance certificates, sustainability certificates, etc.) of the financing in the Bank's IT systems. In case of an expiration the energy performance certificate or sustainability certificate is requested again by the lending department. The Green Building will lose its Green Bond-ability if the borrower can not present a new certificate.

Selection Process



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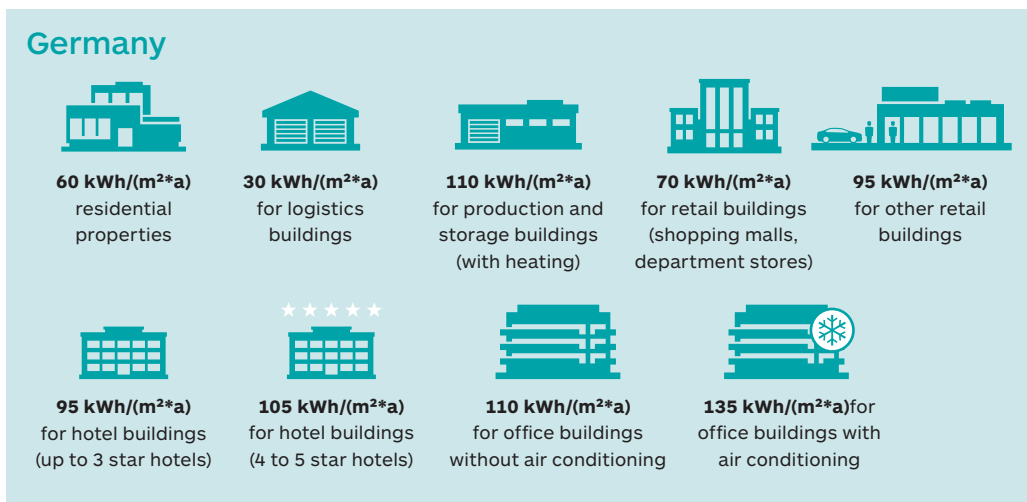
The Green Bond Minimum Standards (GBM):

The GBM are the binding criteria for the evaluation of the Green Bond-ability. The applicable criteria are determined by a Green Asset Commission which is comprised of members of the sustainability circle that supports the sustainability management team. The Green Asset Commission defines the Green Bond Minimum Standards (short: GBMS) and ensures in its regular meetings that the minimum standards required in the target markets are complied with. An asset is categorised as a Green Building if the applicable GBMS are fulfilled at the time of inclusion in the Green Bond portfolio.

The primary energy demand or consumption (warmth) should be used for valuation if the use of renewable energy reduces the primary energy demand or consumption to below the final energy figure.

NORD/LB has set itself the requirement that the financed Green Buildings must at least correspond to the volume of outstanding Green Bonds. If it is not possible to directly use the proceeds from Green Bonds to finance energy-efficient real estate in accordance with this framework, they will be used in the bank's liquidity position.

Energy performance certificates with a maximum final energy demand or consumption (heat) in kWh/(m²*a) by main asset class



Foreign markets

In its foreign markets, NORD/LB is already following the proposals of the Technical Expert Group (TEG). The main type of use of a residential or commercial building must be assigned to the top 15% of the national building stock. The identification is based on the primary energy demand. The necessary data, including the average primary energy demand and the country-specific CO₂ intensity, is provided by Drees & Sommer engineering experts. Drees & Sommer will update this data on a regular basis. This will bring the selection criteria of the Green Bond Framework in line with current market standards. In all target markets, the primary energy demand or consumption (warmth) should be used for valuation if the use of renewable energy reduces the primary energy demand or consumption to below the final energy figure.

Furthermore, it is possible to identify a Green Building in all target markets with help of the following sustainability certificates:

LEED Gold	BREEM Very Good	DGNB Gold	HQE Très bon
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NORD/LB's real estate customers are asked to submit a new valid document before the energy performance certificate or sustainability certificate will expire. With the expiration of valid documents, a moratorium of one (Green Buildings identified by an energy performance certificate) respectively three years (Green Buildings identified by a sustainability certificate) exists. This gives real estate customers flexibility in generating new valid documents. Furthermore, it limits the reduction of NORD/LB's own funding potential.

A Green Building-classification without an energy performance certificate or sustainability certificate is possible in the following cases:

- // For project developments, if the aspired energy demand or sustainability specification will be in line with the current Green Bond minimum standards.
- // For financed buildings without an energy performance certificate or sustainability certificate, which can be compared to Green Buildings which are just part of our Green Bond asset pool. Therefore a detailed statement with an energy demand calculation by a real estate valuer is necessary.

Green Buildings financed are also analysed on the basis of a number of criteria. Besides energy consumption and distance to public transport the use of previously empty land for new constructions (known as greenfield sites) is also examined. The aim here is to avoid building on such areas and, instead, promote construction on brownfield sites. Brownfield sites are areas of land previously used for commercial or industrial purposes and have therefore already seen ecosystem intervention (e.g. through soil sealing due to previous construction work).

In addition, brownfield sites usually already have access to existing infrastructure, offering better transport links (public transport, rail, road and maritime transport) and utilities (water, electricity and gas).

An additional condition for the use of Green Buildings is that the financed real estate is only leased to uncontroversial main tenants. A main tenant contributes more than 10% to the rental incomes. The property will be excluded from the portfolio of suitable Green Buildings should it become known that a main tenant operates in a controversial business.

Greenfield development



Brownfield development

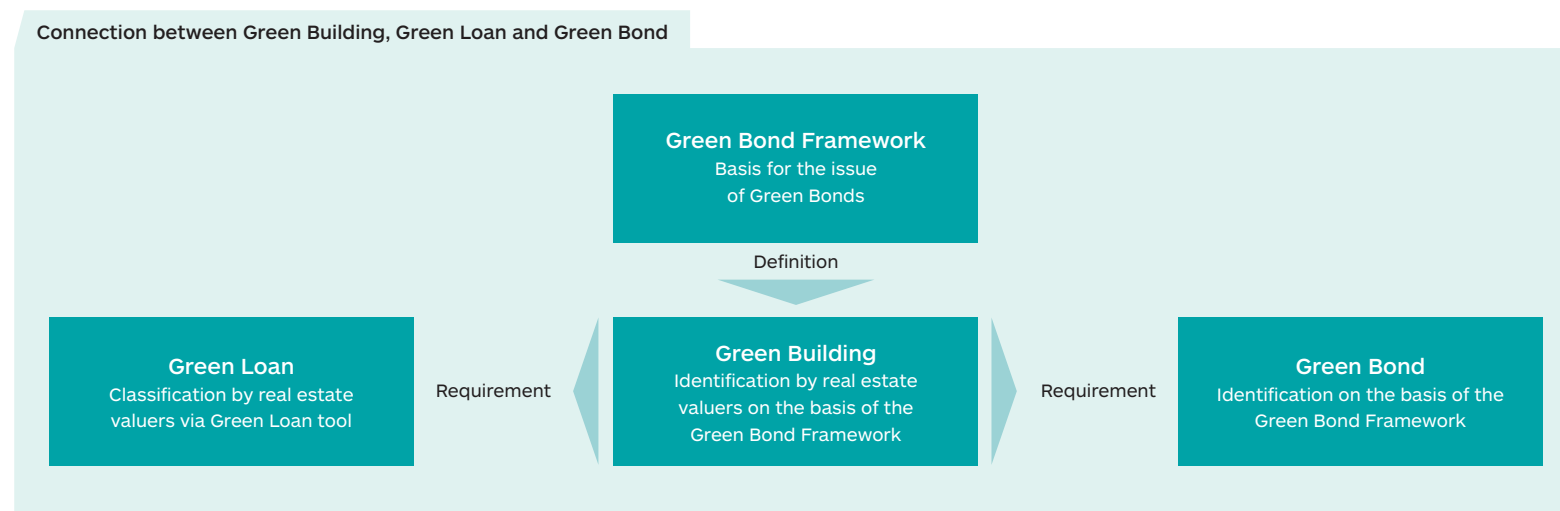


Implementation of Green Loans

With the implementation of Green Loans NORD/LB improves its role as a competent partner for energy efficient mortgage financings:

- // Margin reduction in pricing
- // Incentivisation of sustainable characteristics
- // Green Building-Classification with different criterias, i.e. focus on:
 - Energy consumption
 - Year of construction
 - Certification
 - Distance to public transport connections
 - Soil sealing character
 - Building stock
- // Furthermore: Exclusion of controversial tenants

// **Note: no Green Loan without a Green Building, no Green Bond without a Green Building.**
 But: not every Green Building leads to a Green Loan or a Green Bond! //



2/ Taxonomie Screening of the Green Bond Asset Pool

“Our customers are already intensively engaged with the latest requirements for Green Buildings. Deutsche Hypo has done a great job to continuously expand its knowledge. Sustainability is an integral part of our business strategy and of our employees daily doing. Our goal is to expand our know-how and sustainability behavior with our clients.”

Frank Schrader

NORD/LB welcomes the actions taken by the European Union to create with help of the EU Taxonomy and the EU Green Bond Standard a common European standard. Data transparency, quality and comparability as well as the sustainability performance of bonds and issuers will improve in the medium term. Nevertheless, the implementation will be a challenge. Extensive data know-how is required for successful implementation, especially for the selection criteria and the “Do no significant harm”-requirements. NORD/LB has been actively addressing these challenges

since last year. An important point is the dialogue with the customers. NORD/LB has understood that its sustainability performance can only be improved together with its stakeholders. Therefore, the Bank deals intensively with all aspects of new regulations and shares its knowledge with its customers. The aim is to offer Taxonomy-compliant products and thus to continuously improve the quality of the own Green Bond Programme.



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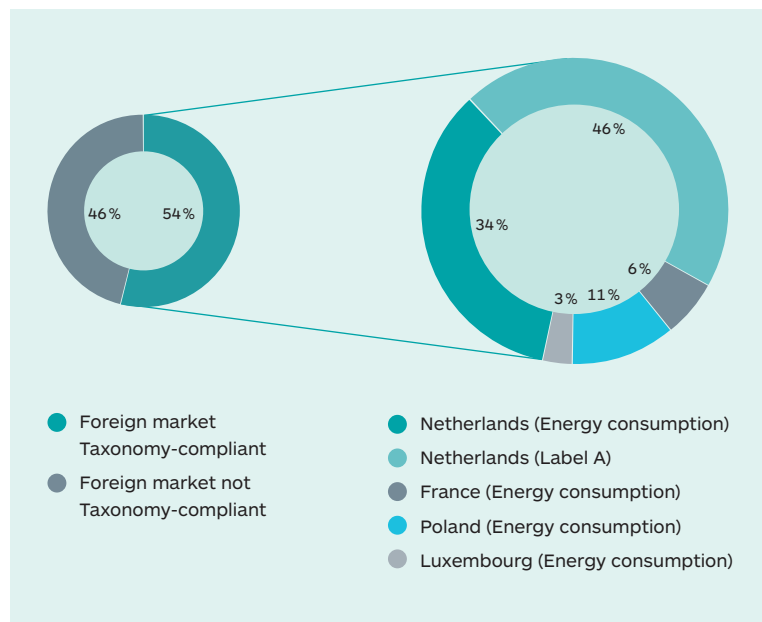


// **NORD/LB already undertakes an indicative asset pool screening regarding the Taxonomy-compliance. So far, this is only possible for “Selection Criteria”:**

Analysis of foreign markets –

Top 15%-approach of Drees & Sommer:

At the beginning of 2020, Deutsche Hypo, now merged with NORD/LB, hired the engineering experts from Drees & Sommer to determine the top 15% of various asset classes in different foreign real estate markets. With the help of this data NORD/LB can publish the Taxonomy-compliance of Green Buildings in foreign real estate markets on an indicative basis.



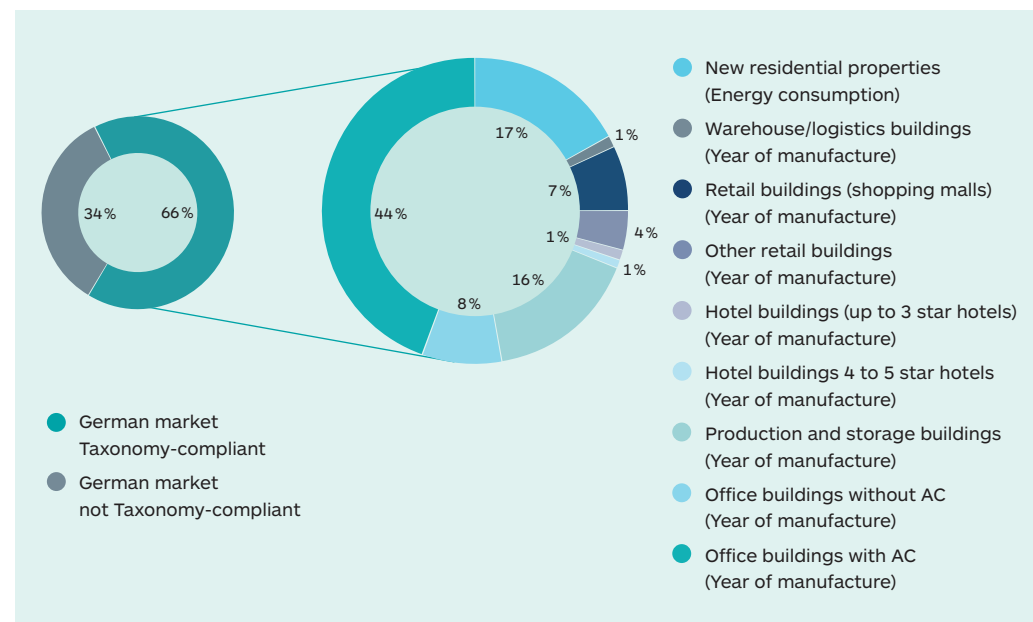
Analysis of the German market –

Top 15%-approach of the Climate Bonds Initiative CBI:

The Climate Bonds Initiative CBI has already published a top 15% market proxy for the German real estate market in 2018:

- // Residential buildings: Energy label A or B, respectively final energy demand of 75 kWh/m2A¹
- // Commercial buildings: Built after 2008

With the help of this data NORD/LB can publish the Taxonomy-compliance of Green Buildings on an indicative basis.



¹ Cf. https://www.climatebonds.net/files/files/Crit%20Brochure_Germany%20Brochure%281%29.pdf in conjunction with Annex 10 of the Bundesgesetzblatt 2013 Part 1 No. 67, 21. November 2013



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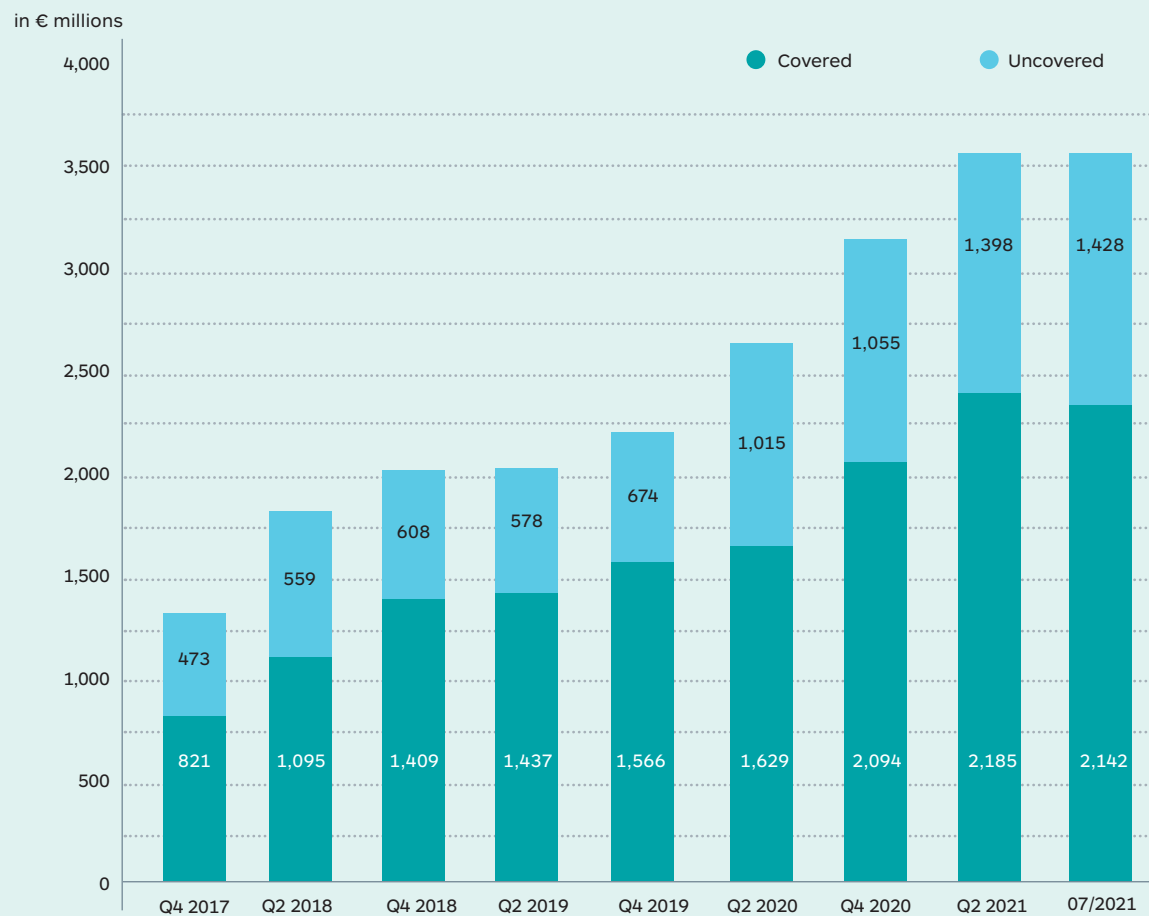
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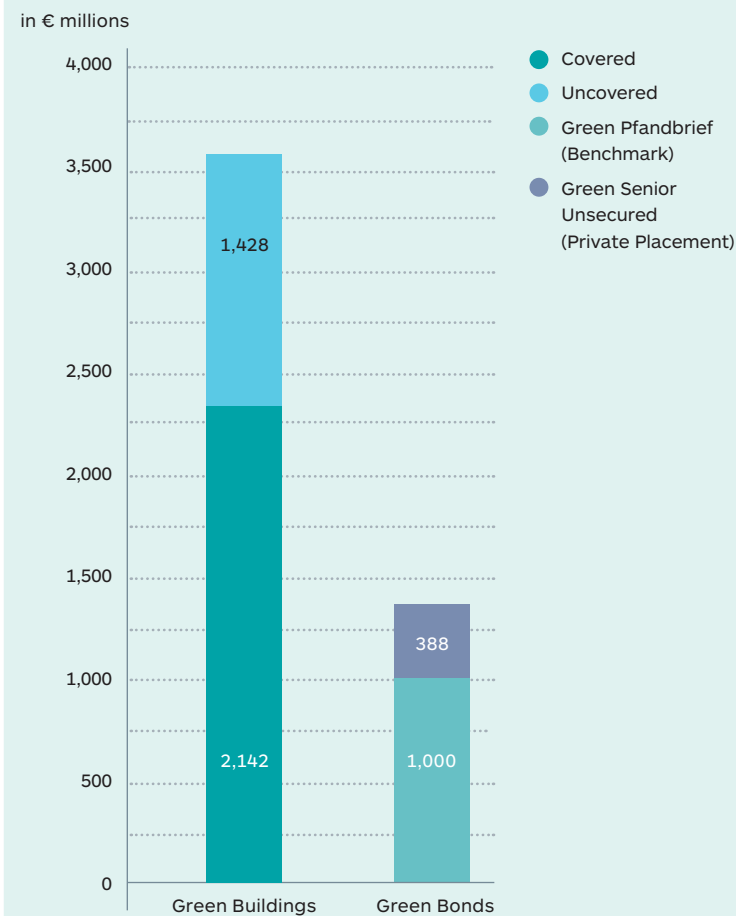
3/ Asset Pool Reporting

At the end of July 2021, NORD/LB's green building portfolio had a total volume of EUR 3,570 million.

A1/ Development of the green building portfolio



A2/ Comparison of asset pool and Green Bonds



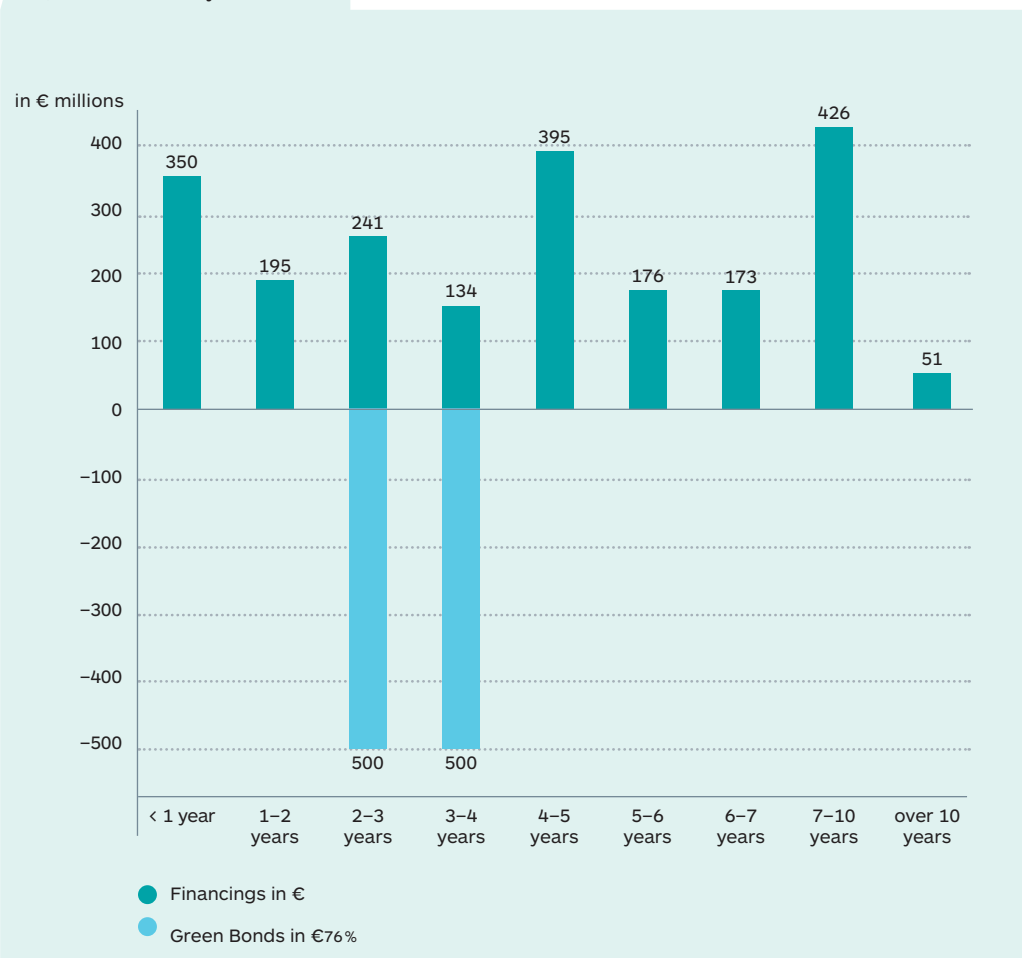
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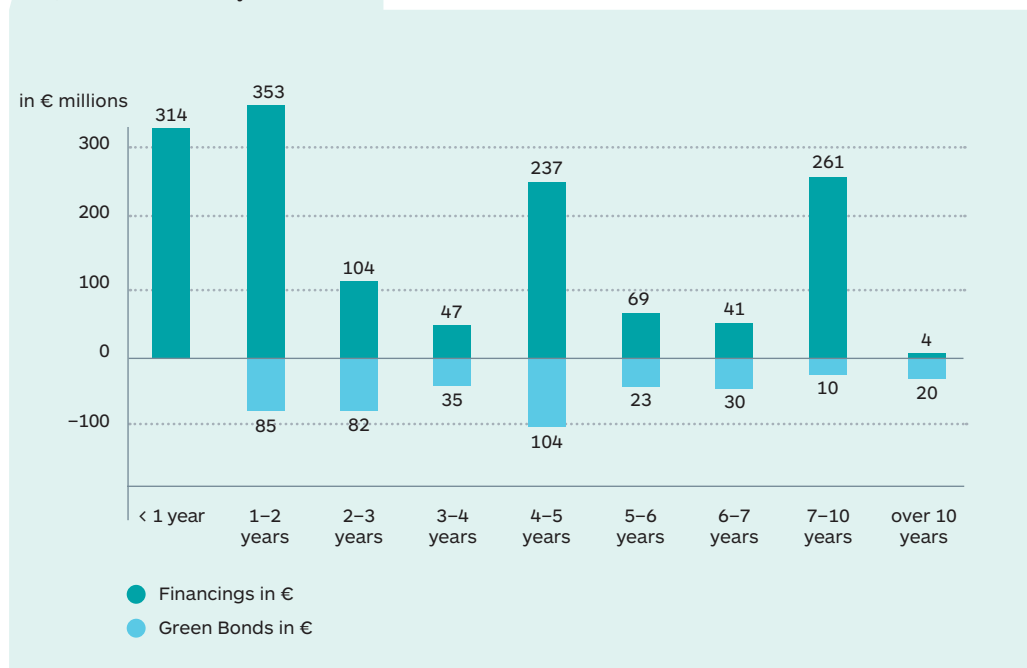


A3/ Covered maturity breakdown



The illustration A3 shows the maturity breakdown of the covered Green Buildings compared with the maturity breakdown of the outstanding Green Pfandbriefe.

A4/ Uncovered maturity breakdown



The illustration A4 shows the maturity breakdown of the uncovered Green Buildings compared with the maturity breakdown of the outstanding uncovered Green Bonds.



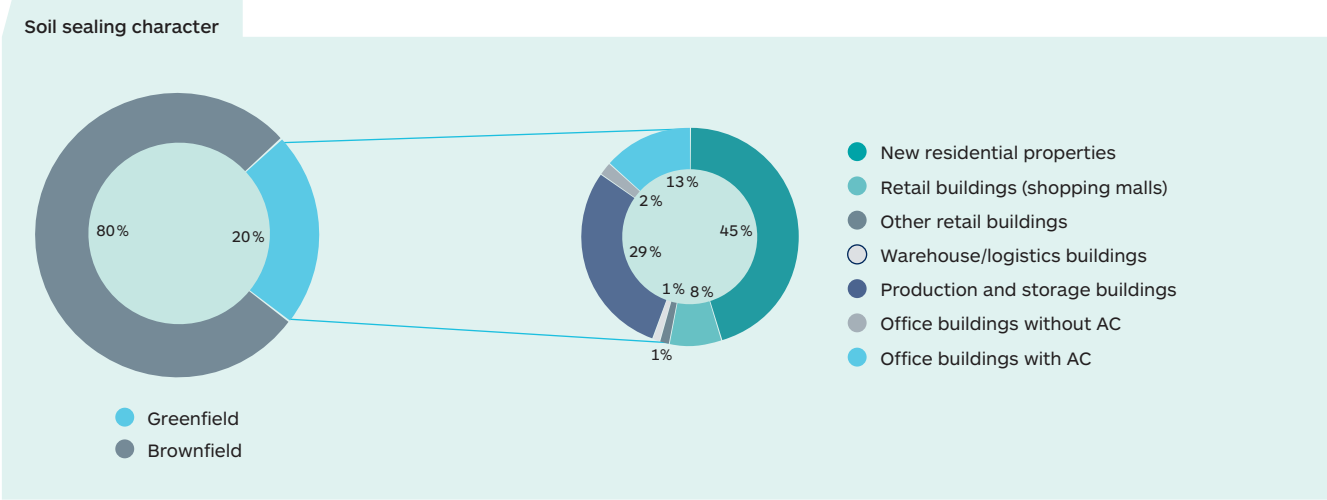
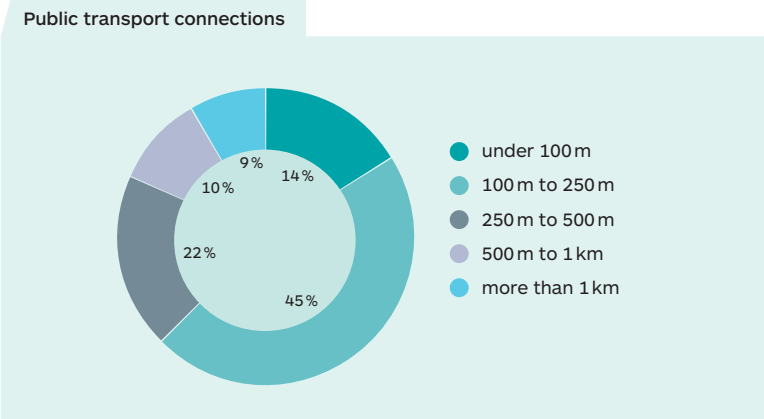
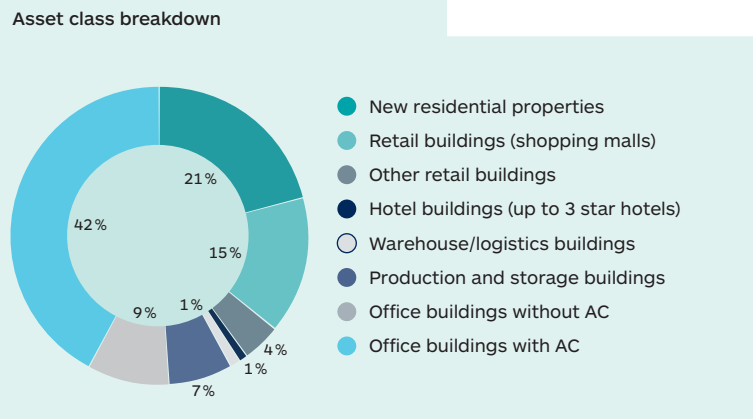
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Green buildings can be categorised as follows

Most of the financed Green Buildings are office buildings with air conditioning (42%), new residential properties (21%) and retail buildings (e.g. shopping malls) (15%). 59% of all financed Green Buildings are less than 250 m away from public transport connections. The majority (80%) of all financed Green Buildings are constructed on land previously used for commercial or industrial purposes and have therefore already seen ecosystem intervention (Brownfield). Most of the on Greenfield sites constructed Green Buildings are new residential properties, e.g. development areas.



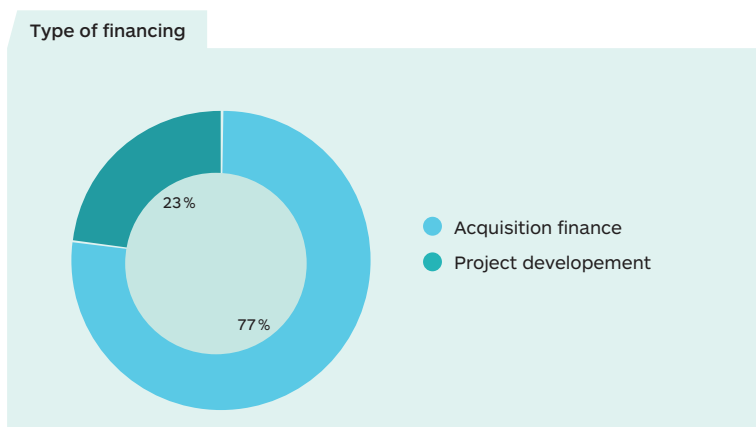
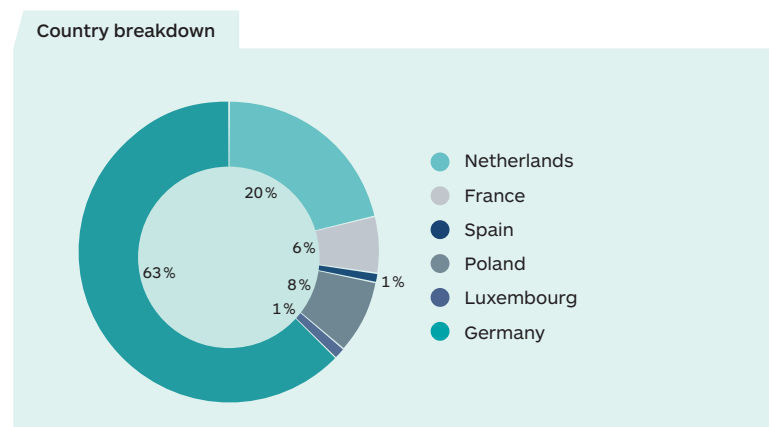
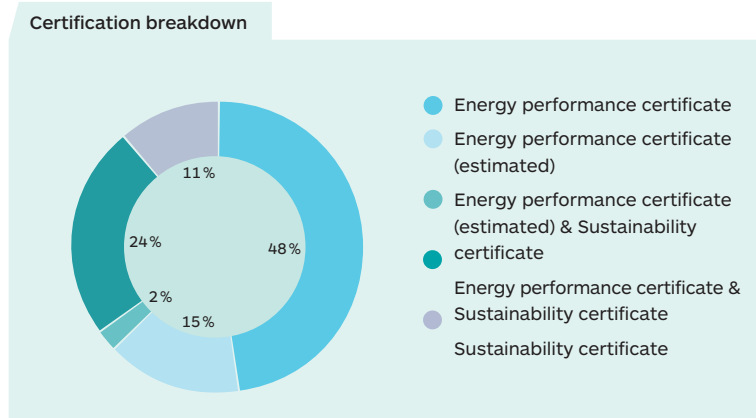
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Green buildings can be categorised as follows

Most of the financed Green Buildings are characterized by an Energy Performance Certificate or an Energy Performance Certificate as well as an Sustainability Certificate (85 %). Because of a missing energy consumption value for the remaining 15 % of the EPCs the energy consumption value was estimated. As in NORD/LB's whole commercial real estate business most of the financed Green Buildings are constructed in Germany (63 %).



4/ Impact Reporting

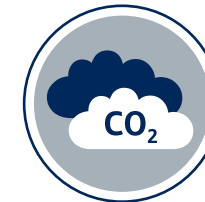
The Green Buildings, which are characterized by an energy performance certificate without estimation of consumption value (EUR 2,270 million), avoid, compared to the current German Energy Savings Ordinance (EnEV), 27,873 tonnes of carbon emissions per year. Thus, per EUR 1 million of investment a total of 12.3 tonnes of carbon emissions is saved per year.

23,587 tonnes of the 27,873 tonnes of carbon emissions were avoided by Green Buildings which are located in Germany and 4,286 which are located in foreign countries. Compared with the average energy consumption of a German four-person-household all Green Buildings which are located in Germany and characterized by an energy performance certificate avoid the energy consumption of 16,800 German four-person-households per year.

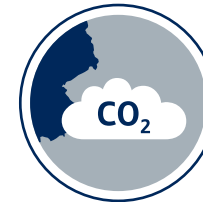
The average energy consumption of a German four-person-household is: 4,000.00 kWh = 1.40 tCO₂.



**Savings per €mn
in tCO₂/(€ mn. *p.a.):**
12.30



Total Savings in tCO₂/p.a.:
27,872.50



**Thereof in foreign
countries in tCO₂/p.a.:**
4,285.90



**Thereof in Germany
in tCO₂/p.a.:**
23,586.60



**Thereof in
four-person-households:**
16,800.00

Source: <https://www.die-stromsparinitiative.de/stromkosten/stromverbrauch-pro-haushalt/index.html>



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For calculating the CO₂-impact NORD/LB only considers green buildings which are characterized by an energy performance certificate with an energy consumption value. NORD/LB generally calculates the energy saved by a green building by determining the difference between energy requirements and the chosen benchmark. The current benchmarks are the average energy consumption values per asset class and target market.

Due to the existing data quality in the target market Germany, the average consumption value of office buildings is the benchmark for all other commercial asset classes. For residential buildings there is a separate average consumption value and thereof a separate benchmark.

In its foreign markets, NORD/LB is already following the proposals of the Technical Expert Group (TEG). The main type of use of a residential or commercial building must be assigned to the top 15 % of the national building stock. The identification is based on the primary energy demand. The necessary data, including the average primary energy demand and the country-specific CO₂ intensity, is provided by Drees & Sommer

engineering experts. Drees & Sommer will update this data on a regular basis. This will bring the selection criteria of the Green Bond Framework in line with current market standards.

The energy saved by the building in kWh/m²a is then multiplied by a factor specific to each target market that takes into account the amount of carbon required to generate one kilowatt-hour of energy for the building. Then, the annual carbon emission savings per square metre are multiplied by the total floor space of the building to determine the building's total emission savings per year. Given that it may be the case that NORD/LB only finances part of the building, the green building's total emission savings are also calculated as a ratio to the share of financing volume. The final step is to divide the emission savings attributable to NORD/LB by the volume of the loan, giving emission savings per EUR 1 million of financing.

NORD/LB can provide the CO₂ intensities and national emissions data used in impact reporting on request.

Green Building energy savings in kgCO₂/a€mn

$$\frac{\left[\text{benchmark} \left(\frac{\text{kWh}}{\text{m}^2\text{a}} \right) - \text{energy consumption} \left(\frac{\text{kWh}}{\text{m}^2\text{a}} \right) \right] \times \text{country-specific carbon intensities} \left(\frac{\text{kgCO}_2}{\text{kWh}} \right) \times \text{building area} (\text{m}^2) \times \text{financing share} (\%)}{\text{loan volume} (\text{€ mn})}$$



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