

Verification of the sustainability quality of the Green Bond 2014 issued by NRW.BANK

Aim and scope of this verification

NRW.BANK has commissioned oekom research to assist with the issuance of its Green Bond 2014 by verifying and confirming the sustainable added value of this bond using the criteria and indicators of a jointly developed framework concept. The aim of the bond issue is to refinance loans extended in 2014.

oekom research's remit included the following services:

Second

Party Opinion

- Defining a framework concept containing a clear definition of eligible project categories and the social and environmental criteria assigned to each category for evaluating the sustainability of the projects financed by loans, which will in turn be refinanced by the Green Bond 2014
- Verifying compliance with criteria and the use made of the loans granted
- Reviewing and classifying NRW.BANK's sustainability performance on the basis of the oekom Corporate Rating

Overall assessment of the "NRW.BANK.Green Bond 2014"

From a sustainability point of view, this bond has been positively rated in several dimensions: the assessment of the formal and substantive sustainability quality of the bond, the measurement of the sustainability performance of the projects funded and the evaluation of the issuer itself all produced positive results. The refinanced loans are used exclusively to fund public and private projects in the German state of North Rhine-Westphalia which have one of the following as their primary objective:

- Provision of a substantial contribution to climate protection through
 - promotion of wind power as a source of renewable energy
 - improvement of the energy efficiency of public buildings
 - improvement of the energy and resource efficiency of small and medium-sized enterprises
- Restoration of the environmental quality and functionality of natural watercourses
- Improvement of the building ecology and thus also the occupant health in public buildings

The setting of these objectives and the specification of corresponding project categories will ensure positive added value.

The projects additionally meet specific and demanding sustainability standards, which are clearly defined and verifiable using qualitative criteria and quantitative indicators. At the same time, these ensure that the substantial positive impact of the projects is not impaired by adverse impacts and effects in other areas (supply chain, society, land use, disposal of hazardous waste materials produced, etc.).

The relevant use of proceeds is clearly documented and guaranteed through defined processes.

Public reporting will be provided as an integral part of the sustainability and financial reporting. For a maximum possible transparency and information value of this reporting, oekom research recommends to use the quantitative indicators set out in the Green Bond Framework and to provide a breakdown of the proceeds used for each project category and – where consistent with banking confidentiality – for each project and loan recipient.

NRW.BANK has been awarded "Prime" status in the oekom Corporate Rating, which is seen by sustainable investors as a quality seal for bond issuers.



Use of proceeds

The proceeds from this bond will be used in the refinancing of loans which have already been granted and whose intended purposes are clearly defined and limited by the project categories and criteria specified below.

At the same time, the shortest loan term corresponds to the term of the bond, so no reinvestment will take place and no new assessment of additional loans and projects will be required during this term. Similarly, there will be no topping up, so it will be a "closed system", rendering unnecessary additional ring-fencing measures to formally delimit and track the use of proceeds.

Green Bond Framework

The Green Bond Framework serves as a framework concept for verifying the sustainability quality and thus the social and environmental added value of the use of proceeds of loans extended in the current year and now to be refinanced through the Green Bond 2014 issue. The Green Bond Framework comprises firstly a clear definition of eligible categories of projects offering environmental and/or social added value and secondly the specific sustainability criteria by means of which this added value and therefore the sustainability performance of the bond can be clearly identified and verified. The sustainability criteria are complemented by specific and measurable indicators which not only make it possible to set ambitious targets but also enable quantitative measurement of the sustainability performance of the bond issue, as well as meaningful reporting.

The sustainability criteria can ideally also be applied to further loans which are to be refinanced through subsequent green bond issues. This would close the loop between the verification of projects already implemented and the selection of new projects on the basis of the sustainability criteria, which would provide backing for statements about the sustainability performance of the projects financed and underscore the green credentials of the bond issue series.

Details of the individual criteria and indicators can be found in Annex 1 "Green Bond Framework".



Verification of the projects funded by the refinanced loans

Methods

oekom research has verified whether the projects funded through the refinanced loans match the project categories and criteria listed in the Green Bond Framework.

The verification was carried out using information and documents provided to oekom research, partly on a confidential basis, by NRW.BANK (management decisions, certifications of loan recipients / project implementers, local public procurement laws, federal German laws, regulations and standards, land use plans, environmental declarations, etc.).

Findings

A. Energy efficiency in buildings (new buildings and renovations)

Share in use of proceeds: Project categories A and E jointly account for EUR 250m (50% of total credit amount) Project types: Construction of energy-efficient new public buildings (universities, tax office) and window replacements in a court building

Loan recipient: Bau- und Liegenschaftsbetrieb of North Rhine-Westphalia (BLB)

- A.1. Achieved energy efficiency of the renovated or new building
 - ✓ For 100% of the total loan amount relating to this project category, the energy-efficiency indicators (primary energy consumption and heat transfer coefficient of the outer shell) following renovation or new construction will be 20-30% below those specified by the German Energy-Saving Ordinance (EnEV).
- A.2. Working conditions on construction sites
 - ✓ For 100% of the loan amount relating to this project category, the implementing construction companies and subcontractors have undertaken in writing to comply with the Collective Bargaining and Public Procurement Act of North Rhine-Westphalia (TVgG-NRW), which contains standards regarding appropriate working and contractual conditions, including minimum rates of pay (including overtime rates), minimum paid annual leave, maximum working hours and minimum rest periods, conditions relating to the subcontracting of workers, in particular through temporary employment agencies, safety, hygiene and health protection at work, protective measures in connection with the working and employment conditions of pregnant women and women who have recently given birth, children and young people, and the equal treatment of men and women, as well as other provisions on non-discrimination.
- A.3. No use of construction materials that are damaging to the environment and/or to human health
 - ✓ For 100% of the total loan amount relating to this project category, the implementing construction companies and subcontractors have undertaken in writing to comply with the Collective Bargaining and Public Procurement Act of North Rhine-Westphalia (TVgG-NRW), which contains standards regarding materials of environmental and health relevance (including a preference for wood and recycled building materials).
- A.4. Land use and biodiversity (new buildings only)
 - ✓ For 100% of the total loan amount in this project category relating to new buildings, the implementing construction companies and subcontractors are required to comply with the EEC Habitats Directive and its implementation into German law. An environmental impact assessment in accordance with the Environmental Impact Assessment Act (UVPG) is only carried out when required by German law as voluntary additional assessment would not be in accordance with budgetary laws.
- A.5. Involvement of local residents at the planning stage (new buildings only)
 - ✓ For 100% of the total loan amount in this project category relating to new buildings, the needs of local residents are included by the local authority in the planning for such projects by involving affected parties in the drafting of the land-use plan, and the public is informed accordingly.



B. Wind power

Share in use of proceeds: approx. EUR 74m (15% of the total credit amount) Project types: Financing, construction and operation of wind power plants Loan recipients: Public and private wind park operators and cooperatives

- B.1. Environmental aspects of the components, equipment and technology used
 - ✓ For approx. 86% of the total loan amount relating to wind-power projects, a dedicated certification ensures that lifecycle assessments play an important role in decisions regarding the production, operation and dismantling of wind power plants.
- B.2. Environmentally compatible planning and operation of wind farms
 - ✓ For 100% of the total loan amount relating to new-build wind-power projects, the regulatory act on planning and permission of wind power plants ("Windenergieerlass") of North-Rhine Westphalia applies. This law includes requirements regarding no-go areas, height restriction, land-use plans, environmental assessments, noise, conservation of nature and biodiversity.
 - ✓ For 100% of the total loan amount relating to wind-power projects, the stringent noise-protection specifications of the German Industrial Emissions Directive (BImSchV) apply to the projects concerned.
- B.3. Social standards in the supply chain
 - ✓ For 100% of the total loan amount relating to wind-power projects, the contracted specialised wind park equipment providers commit to comply with high occupational health and safety standards, which they also ask from their suppliers.
 - The contracted specialised wind park equipment providers mainly manufacture in countries with high statutory standards regarding labour rights and working conditions such as freedom of association, nondiscrimination, working time and payment.
 - O There is no transparency concerning the question of how compliance with such standards is ensured for manufacturing locations and suppliers further down in the supply chain in countries with insufficient statutory standards.
- B.4. Involvement of local residents
 - ✓ For 100% of the total loan amount in this project category relating to new buildings, the needs of local residents are included by the local authority in the planning for such projects by involving affected parties in the drafting of the land-use plan, and the public is informed accordingly.
- B.5. Working conditions on construction sites and during maintenance
 - ✓ For 100% of the total loan amount relating to this project category, the implementing companies and subcontractors have committed to complying with high standards on occupational health and safety.
 - ✓ For 100% of the total loan amount relating to this project category, the implementing companies and subcontractors are additionally obliged to comply with high statutory labour standards, e.g. as regards freedom of association, equal opportunities and non-discrimination, working time and payment.



C. Energy and resource efficiency in small and medium-sized enterprises

Share in use of proceeds: EUR 44m (9% of the total credit amount)

Project types: Energy and resource efficiency improvements of e.g. machinery, vehicles and/or processes Loan recipients: Small and medium-sized companies from sectors such as public transportation, medical equipment or commercial printers

- C.1. Percentage improvement in energy and resource efficiency
 - ✓ More than 95% of the total loan amount relating to the energy and resource efficiency project category flows into projects in which the percentage improvement reaches or exceeds 20% for energy efficiency and/or 10% for resource efficiency.
 - ✓ The remaining 5% go to projects with energy and resource efficiency improvement below 20% or respectively 10%. These projects fulfil additional requirements, e.g. as regards the implementation of a certified environmental management system.
- C.2. Exclusion of controversial business areas
 - ✓ For 100% of the total loan amount relating to the energy and resource efficiency project category, the possibility that the projects and borrowers concerned are active in the following controversial business areas can be ruled out: arms manufacture and trade, extraction of oil or coal, nuclear power generation and production of pesticides or tobacco.

D. Restoration of watercourses and separate waste water drainage and treatment

Share in use of proceeds: EUR 130m (26% of the total credit amount)

Project types: restoration of the original natural state of watercourses, construction of modern waste water system infrastructure

Loan recipients: Local Water Cooperative of North Rhine-Westphalia (Emschergenossenschaft)

- D.1. Standards for construction companies commissioned with the restoration of watercourses and the creation of new waste water systems
 - ✓ For 100% of the total loan amount relating to this project category, the implementing construction companies and subcontractors have undertaken in writing to comply with the Collective Bargaining and Public Procurement Act of North Rhine-Westphalia. This contains standards regarding appropriate working and contractual conditions, including minimum rates of pay (including overtime rates), minimum paid annual leave, maximum working hours and minimum rest periods, conditions relating to the subcontracting of workers, in particular through temporary employment agencies, safety, hygiene and health protection at work, protective measures in connection with the working and employment conditions of pregnant women and women who have recently given birth, children and young people, and the equal treatment of men and women, as well as other provisions on non-discrimination. The law additionally requires that sustainability criteria such as energy and resource efficiency have to be taken into consideration in all public procurement contracts.
- D.2. Guiding principles of natural states of water courses, scientific monitoring, structural quality mapping
 - ✓ For 100% of the total loan amount relating to this project category, appropriate planning, implementation and subsequent monitoring for ten years are based on the European Water Framework Directive (WFD) and thus modelled on the natural state of water courses. The Emschergenossenschaft additionally cooperates with universities to ensure a scientific basis for the restoration measures and processes.
- D.3. Sustainability standards for the waste water system
 - ✓ 100% of the waste water network is based on the waste water ingredients present constructed so that it is corrosion-resistant for its intended service life.
 - ✓ For 100% of the purification plants of the Emschergenossenschaft, 90% of the generated sewage sludge is used as biomass and as a source of biogas for generating energy and 10% is re-used as a raw material in the cement industry.



E. Renovations to improve the occupant health and the ecological quality of public buildings

Share in use of proceeds: Project categories A and E jointly account for EUR 250m (50% of total credit amount) Project types: Removal of hazardous substances from public buildings (e.g. asbestos clean-up) Loan recipient: Bau- und Liegenschaftsbetrieb of North Rhine-Westphalia (BLB)

- E.1. Working conditions on construction sites (with a focus on health and safety)
 - ✓ For 100% of the total loan amount relating to this project category, the implementing construction companies and subcontractors have undertaken in writing to comply with the Collective Bargaining and Public Procurement Act of North Rhine-Westphalia. This contains standards regarding appropriate working and contractual conditions, including minimum rates of pay (including overtime rates), minimum paid annual leave, maximum working hours and minimum rest periods, conditions relating to the subcontracting of workers, in particular through temporary employment agencies, safety, hygiene and health protection at work, protective measures in connection with the working and employment conditions of pregnant women and women who have recently given birth, children and young people, and the equal treatment of men and women, as well as other provisions on non-discrimination.
- E.2. Safe disposal of removed construction materials that are harmful to health
 - ✓ For 100% of the total loan amount relating to this project category, the implementing construction companies and subcontractors isolate and remove waste and pollutants in compliance with German law (German Penal Code (StGB), Closed Substance Cycle and Waste Management Act (KrW-/AbfG), Hazardous Substances Ordinance (GefStoffV), Nature Conservation Act (NatSchutzG), State Water Act (LWasserG)).
- E.3. Provision of information to and involvement of local residents and the public
 - ✓ For 100% of the total loan amount relating to this project category, local residents and the public are informed through information documents, press releases and, on a case-by-case basis, public hearing events.

Climate Bond Initiative Standard

All of the wind power projects that received loans to be refinanced by NRW.BANK's Green Bond 2014 meet the Wind Energy Generation eligibility criteria of the Climate Bonds Standard¹, as follows:

Funds raised will be used to finance or refinance Wind Energy Generation, that is activities to generate energy from wind, specifically:

- The development and construction of wind farms
- Operational production or manufacturing facilities wholly dedicated to wind energy development
- Wholly dedicated transmission infrastructure for wind farms



Verification of the issuer's sustainability performance

In the oekom Corporate Rating with a rating scale from A+ (excellent) to D-, NRW.BANK was awarded a score of C and classified as "Prime". This means that the company performed well in terms of sustainability, both compared against others in the industry and in terms of the industry-specific requirements defined by oekom research, meaning that in oekom research's view, the securities issued by the company all meet the basic requirements for sustainable investments.



oekom research

As at 17.10.2014, this rating puts NRW.BANK in 12th place out of 23 companies in the "Financials/Development Banks" sector, in which the top two companies were the only ones to achieve a score of B.

In this sector, oekom research has identified the following issues as the key challenges facing companies in terms of sustainability management:

- Sustainability standards for the lending business
- Goal-oriented promotion of sustainability issues
- Climate change and related risks
- Working conditions and employee wellbeing

In three of these four key issues, NRW.BANK achieved a rating that was significantly above the average for the sector. In the area of sustainability standards in lending, the company's rating was below the average for the sector, due to a lack of transparency regarding such standards.

The company holds a stake in casinos and lotteries on behalf of the Federal State of North Rhine-Westphalia, accounting for less than one per cent of net sales. Other than this, the company is not involved in any controversial areas of business or business practices and does not breach any of the other exclusion criteria frequently applied by sustainability-oriented investors.

Details on the rating of the issuer can be found in Annex 2 "Issuer rating results".

oekom research AG Munich, 17 October 2014

Disclaimer

1. oekom research AG uses a scientifically based rating concept to analyse and evaluate the environmental and social performance of companies and countries. In doing so, we adhere to the highest quality standards which are customary in responsibility research worldwide. In addition we create a Second Party Opinion (SPO) on bonds based on data from the issuer.

2. We would, however, point out that we do not warrant that the information presented in this SPO is complete, accurate or up to date. Any liability on the part of oekom research AG in connection with the use of these SPO, the information provided in them and the use thereof shall be excluded. In particular, we point out that the verification of the compliance with the selection criteria is based solely on random samples and documents submitted by the issuer. 3. All statements of opinion and value judgements given by us do not in any way constitute purchase or investment recommendations. In particular, the SPO is no assessment of the economic profitability and credit worthiness of a bond, but refers exclusively to the social and environmental criteria mentioned above.

4. We would point out that this SPO, in particular the images, text and graphics contained therein, and the layout and company logo of oekom research AG are protected under copyright and trademark law. Any use thereof shall require the express prior written consent of oekom research AG. Use shall be deemed to refer in particular to the copying or duplication of the SPO wholly or in part, the distribution of the SPO, either free of charge or against payment, or the exploitation of this SPO in any other conceivable manner.

About oekom research

oekom research is one of the world's leading rating agencies in the field of sustainable investment. The agency analyses companies and countries with regard to their environmental and social performance. oekom research has extensive experience as a partner to institutional investors and financial service providers, identifying issuers of securities and bonds which are distinguished by their responsible management of social and environmental issues. More than 100 asset managers and asset owners routinely draw on the rating agency's research in their investment decisionmaking. oekom research's analyses therefore currently influence the management of assets valued at over 600 billion euros.

As part of our Green Bond Services, we provide support for companies and institutions issuing sustainable bonds, advise them on the selection of categories of projects to be financed and help them to define ambitious criteria. We verify the compliance with the criteria in the selection of projects and draw up an independent second party opinion so that investors are as well informed as possible about the quality of the loan from a sustainability point of view.

Contact: oekom research AG, Goethestraße 28, 80336 Munich, Germany, tel: +49/(0)89/544184-90, e-mail: info@oekom-research.com



Annex

- Annex 1: Green Bond Framework
- Annex 2: Issuer rating results



Annex 1: Green Bond Framework

Objectives

The Green Bond Framework serves as a framework concept for verifying the sustainability quality and thus the social and environmental added value of the use of proceeds of loans extended in the current year and now to be refinanced through the Green Bond 2014 issue. The Green Bond Framework comprises firstly a clear definition of eligible categories of projects offering social and/or environmental added value and secondly the specific sustainability criteria by means of which this added value and therefore the sustainability performance of the bond can be clearly identified and verified. The sustainability criteria are complemented by specific and measurable indicators which not only make it possible to set ambitious targets but also enable quantitative measurement of the sustainability performance of the bond issue, as well as informative reporting.

The sustainability criteria can ideally also be applied to further loans which are to be refinanced through subsequent green bond issues. This would close the loop between the checking of projects already implemented and the selection of new projects on the basis of the sustainability criteria, which would provide backing for statements about the sustainability performance of the projects financed and underscore the green credentials of the bond issue series.

Project categories

The proceeds from the bond issue will be used in full to refinance loans granted in 2014. The bond term will thus correspond to the shortest loan term, which means that no reinvestments will be made during the term of the Green Bond 2014. Moreover, there will also be no topping up, so the portfolio of assets as described below will remain unchanged over the entire term of the bond.

NRW.BANK's overarching green bond strategy is to provide "active support for NRW's climate protection policies". The Green Bond 2013 was also dedicated to this aim. Besides climate protection projects, however, further categories of projects offering high levels of sustainability benefit have also been defined as eligible.

The current Green Bond 2014 issue focuses on projects for promoting energy efficiency in buildings and in small and medium-sized enterprises, wind-power plants, the renaturation of watercourses (with a positive impact on biodiversity and natural flood protection) and renovations to improve the health and environmental design quality of public buildings.

The following project categories have been selected for the Green Bond 2014:

Climate protection through the use of renewable energies and energy efficiency

- A. Energy efficiency in buildings (new builds and energy renovations)
- B. Wind power
- C. Energy and resource efficiency in small and medium-sized enterprises

Biodiversity and environmental quality of habitats

- D. Renaturation of watercourses and separate waste water drainage and treatment
- E. Renovations to improve occupant health and ecological quality of public buildings



Opportunities and risks associated with the project categories

The project categories selected for the Green Bond 2014 offer opportunities and environmental benefits in the areas of climate protection and energy transition, economical and efficient management of energy and other resources, as well as ecology and biodiversity and thus also ecosystem services. The renovation of public buildings to remove contaminants and the improvement of natural flood protection also provide social/societal added value.

From a sustainability point of view, infrastructure projects also always involve risks, which need to be eliminated or at least minimised. In the case of the project categories concerned, these stem in particular from working conditions on construction sites, environmental and social standards in the supply chain, impacts on biodiversity and the use of materials that are damaging to the environment and/or to human health.

Where projects to improve energy and resource efficiency are concerned, not only the relative improvement but also the absolute efficiency achieved should ultimately meet high standards.

There are additional risks associated with companies involved in controversial business areas such as armaments, nuclear power, pesticides and tobacco, and these should always be excluded from projects being refinanced through a Green Bond.

Qualitative sustainability criteria and quantitative indicators

A. Energy efficiency in buildings (new builds and energy renovations)

• A.1. Achieved energy efficiency of the renovated or new building

Quantitative indicator: percentage of total loan amount relating to this project category for which energy-efficiency indicators (primary energy consumption and heat transfer coefficient of outer shell) following renovation or new build will be 20-30% below EnEV [German Energy-Saving Ordinance] specifications

• A.2. Working conditions on construction sites

Quantitative indicator: percentage of total loan amount relating to this project category for which the implementing construction companies and subcontractors) guarantee adequate working and contractual conditions through binding standards

• A.3. No use of construction materials that are damaging to the environment and/or to human health

Quantitative indicator: percentage of total loan amount relating to this project category for which the implementing construction companies and subcontractors and suppliers are required to comply with appropriate standards concerning the use of ecological and healthy materials

- A.4. Land use and biodiversity (new builds only)
 Quantitative indicator: percentage of total loan amount relating to new-build projects for which an environmental impact assessment is carried out
- A.5. Involvement of local residents at the planning stage (new builds only)
 Quantitative indicator: percentage of total loan amount relating to new-build projects for which residents were involved at the planning stage

B. Wind power

• B.1. Environmental aspects of the components, equipment and technology used Quantitative indicator: percentage of total loan amount relating to wind power project for which lifecycle assessments play an important role in planning and design decisions



- B.2. Environmentally compatible planning and operation of wind farms
 Quantitative indicator: percentage of total loan amount relating to wind power project for which environmental impact assessments are carried out
 Quantitative indicator: percentage of total loan amount relating to wind power project for which strict standards on
 minimisation of noise are applied
- B.3. Social standards in the supply chain Quantitative indicator: percentage of total loan amount relating to this project category for which the suppliers are required to comply with appropriate social standards
- B.4. Involvement of local residents
 Quantitative indicator: percentage of total loan amount relating to wind power projects for which residents and the
 public are involved at the planning stage
- B.5. Working conditions on construction sites and during maintenance Quantitative indicator: percentage of total loan amount relating to this project category for which the implementing construction companies and subcontractors guarantee working and contractual conditions through binding stanards

C. Energy and resource efficiency in small and medium-sized enterprises

- C.1. Percentage improvement of energy and resource efficiency Quantitative indicator: percentage of total loan amount relating to the energy/resource efficiency project category for which the percentage improvement reaches or exceeds 20% for energy efficiency and/or 10% for resource efficiency
- C.2. Exclusion of controversial business areas Quantitative indicator: percentage of total loan amount relating to the energy/resource efficiency project category for which the projects do not involve any controversial business areas, such as for example armaments, crude oil, coal, nuclear power, pesticides and/or tobacco

D. Restoration of watercourses and separate waste water drainage and treatment

• D.1. Standards for construction companies commissioned with the restoration of watercourses and the creation of new waste water systems

Quantitative indicator: percentage of total loan amount relating to this category for which the commissioned construction companies and subcontractors are required to comply with appropriate social and environmental standards

- D.2. Modelling on natural state of water bodies, scientific monitoring, structural quality mapping Quantitative indicator: percentage of total loan amount relating to this project category for which the relevant plans are scientifically monitored and are modelled on the natural state of the water body
- D.3. Sustainability standards for the waste water system

Quantitative indicator: percentage of total loan amount relating to this project category for which the waste water network is planned and implemented so as to resist corrosion

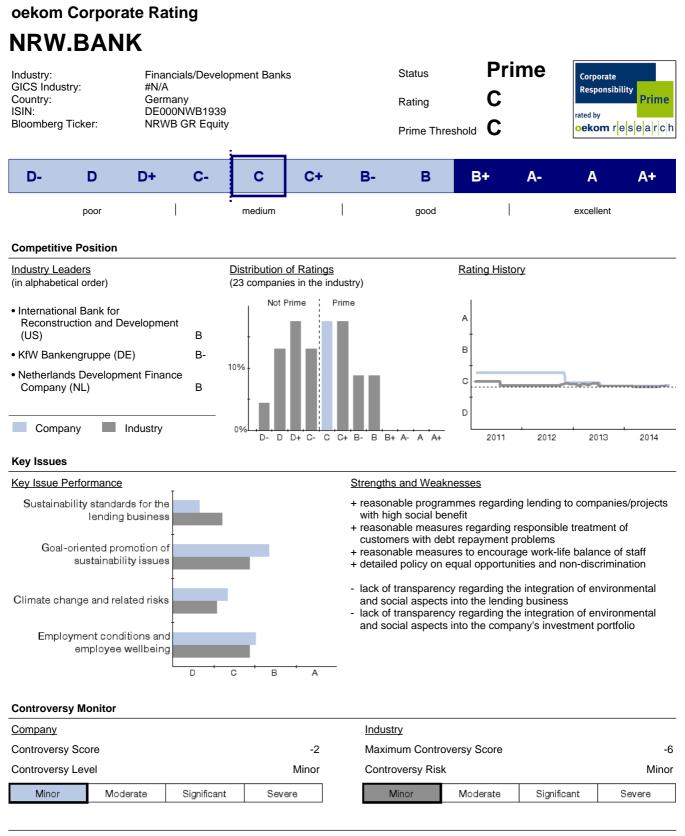
Quantitative indicator: percentage of total loan amount relating to this project category for which the sludge generated from the waste water treatment is used and/or disposed of responsibly



E. Renovations to improve the occupant health and ecological quality of public buildings

- E.1. Working conditions on construction sites (with a focus on health and safety) Quantitative indicator: percentage of total loan amount relating to this project category for which the implementing construction companies and subcontractors guarantee adequate working and contractual conditions through binding standards
- E.2. Safe disposal of removed construction materials that are harmful to health Quantitative indicator: percentage of total loan amount relating to this project category for which the implementing construction companies and subcontractors and suppliers are required to comply with appropriate standards
- E.3. Provision of information to and involvement of local residents and the public Quantitative indicator: percentage of total loan amount relating to this project category for which local residents and the public are informed about and involved in the process

oekom research



Disclaimer

1. oekom research AG uses a scientifically based rating concept to analyse and evaluate the environmental and social performance of companies and countries. In doing so, we adhere to the highest quality standards which are customary in responsibility research worldwide.

We would, however, point out that we do not warrant that the information presented in this Rating Report is complete, accurate or up to date. Any liability on the part of oekom research AG in connection with the use of these pages, the information provided in them and the use thereof shall be excluded.
 All statements of opinion and value judgements given by us do not in any way constitute purchase or investment recommendations.

An statements of opinion and value judgements given by us to formany way constitute purchase of investment recommendators.
 We would point out that this Rating Report, in particular the images, text and graphics contained therein, and the layout and company logo of oekom research AG are protected under copyright and trademark law. Any use thereof shall require the express prior written consent of oekom research AG. Use shall be deemed to refer in particular to the copying or duplication of the Rating Report wholly or in part, the distribution of the Rating Report, either free of charge or against payment, or the exploitation of this Rating Report in any other conceivable manner.

Contact details: oekom research AG, Munich / Germany. Fon: +49 89 544184 90. Email: info@oekom-research.com

NRW.BANK

Methodology - Overview

oekom Corporate Rating	The oekom Universe comprises more than 3,400 companies (mostly companies in important national and international indices, but also small & mid caps drawn from sectors with links to sustainability as well as significant non-listed bond issuers).
	The assessment of the social and environmental performance of a company is generally carried out with the aid of approx. 100 social and environmental criteria, selected specifically for each industry. All criteria are individually weighted, evaluated and aggregated to yield an overall score (Rating). In case there is no relevant or up-to-date company information available on a certain criterion, it is graded with a D
	In order to generate a comprehensive picture of each company, our analysts collect information relevant to the rating both from the company itself and from independent sources. During the rating process, considerable importance is attached to cooperating extensively with the company under evaluation. Companies are regularly given the opportunity to comment on the results and provide additional information.
	An external rating committee assists the analysts at oekom research with the content-related design of industry-specific criteria and carries out a final plausibility check of the rating results at the end of the rating process.
Controversy Monitor	The oekom Controversy Monitor is a tool for assessing and managing reputational and financial risks associated with companies' negative environmental and social impacts.
	The controversy score is a measure of the number and extent of the controversies in which a company is currently involved: all controversial business areas and business practices are assigned a negative score, which varies depending on the significance and severity of the controversy. Both the score of the portrayed company and the maximum score obtained in the industry are displayed.
	For better classification, the scores are assigned to different levels: minor, moderate, significant and severe. The industry level relates to the average controversy score.
	Only controversies, for which reliable information from trustworthy sources is available, are recorded. It should be noted that large international companies are more often the focus of public and media attention and available information is often more comprehensive than for less prominent companies.
Distribution of Ratings	Overview of the distribution of all company ratings of an industry from the oekom Universe (company portrayed in this report: light blue). The industry-specific Prime threshold (vertical dotted line) is also shown.
Industry Classification	The social and environmental impacts of industries differ. Therefore, subject to its relevance, each industry analysed is classified in a Sustainability Matrix. Depending on this classification, the two dimensions of the oekom Corporate Rating, i.e. the Social Rating and the Environmental Rating, are weighted and the sector-specific minimum requirements for the oekom Prime Status
	and the sector-specific minimum requirements for the oekom Prime Status (Prime threshold) are defined (absolute best-in-class approach).
Industry Leaders	List (in alphabetical order) of the top three companies in an industry from the oekom Universe at the time of generation of this report.
Key Issue Performance	Overview of the company's performance with regard to important social and environmental issues that are key to the industry, compared to the industry average.
Rating History	Trend in the company's rating over time and comparison to the average rating in the industry.
Rating Scale	Companies are rated on a twelve-point scale from A+ to D-: A+: the company shows excellent performance. D-: the company shows poor performance. Overview of the range of scores achieved in the industry (light blue) and display of the industry-specific Prime threshold (vertical dotted line).
Sources of Information	Data for the Bloomberg Ticker, Company Name, Country, GICS Industry and ISIN was sourced from Bloomberg.
Status & Prime Threshold	Companies are categorised as Prime if they achieve/exceed the minimum sustainability performance requirements (Prime threshold) defined by oekom for a specific industry (absolute best-in-class approach) in the oekom Corporate Rating. Prime companies rank among the leaders in that industry.
Strengths & Weaknesses	Overview of selected strengths and weaknesses of a company with regard to relevant social and environmental criteria.

Please note that all data in this report relates to the point in time at which the report was generated.