

Second  
Party  
Opinion

Verification of the sustainability quality of the inaugural  
Sustainability Bond  
issued by the State of North Rhine-Westphalia (NRW)

12 February 2015

Aim and scope of this Second Party Opinion

The German State of North Rhine-Westphalia (NRW) has commissioned oekom research to assist with the issuance of its inaugural Sustainability Bond by verifying and confirming the sustainable added value of this bond using the criteria and indicators of a sustainability framework concept. The aim of this sustainability bond issuance is to promote and illustrate NRW's sustainability policy and at the same time to enable the refinancing of projects and initiatives with clear environmental and social benefits in NRW.

oekom research's mandate included the following services:

- Definition of a framework concept containing a clear description of eligible project categories and the social and environmental criteria assigned to each category for evaluating the sustainability-related performance of the projects financed through the proceeds of the bond.
- Verification of compliance of the financed projects with the framework criteria.
- Review and classification of the Federal Republic of Germany's sustainability performance on the basis of the oekom Country Rating.

Overall evaluation of the inaugural Sustainability Bond issued by NRW

oekom's overall evaluation of the inaugural Sustainability Bond issued by the State NRW is positive:

- The bond's formal concept, defined processes and (announced) disclosures are largely aligned with the Green Bond Principles (Part I of this Second Party Opinion).
- The overall sustainability quality of the bond and the sustainability performance of each of the funded projects/activities in terms of sustainability benefits and risk avoidance and minimisation is good (Part II of this Second Party Opinion).
- The country, which the issuer forms part of shows a good sustainability performance (Part III of this Second Party Opinion).

The quality of NRW's public reporting could not be conclusively assessed as NRW has yet to define details on content and form (e.g. use of quantitative impact indicators, comprehensive reporting on each project in English language) of reporting for its Sustainability Bond.

There are some aspects for which more specific selection or performance criteria would be recommended as it could still add to the overall quality of the Sustainability Bond:

- Quantitative targets or requirements concerning energy efficiency improvements for projects in category *D. Climate Protection and Energy Transition* such as a 30% improvement must be realised by each project
- Fuel type, energy mix and/or efficiency requirements for public transport providers that benefit from projects in category *C. Public Transport and Local Mobility*
- Binding social and environmental supply chain standards for private sector beneficiaries receiving support through projects in category *D. Climate Protection and Energy Transition*

## Part I – Green Bond Principles

### 1) Use of Proceeds

The proceeds of the Sustainability Bond (€ 500m or more) will be used to finance selected eligible projects belonging to the 2014 budget, which continues until the end of the first quarter of 2015. An amount equivalent to the net proceeds of the Notes will be used to refinance projects and initiatives of the State of North Rhine-Westphalia with clear environmental and/or social benefits, in accordance with NRW's sustainability policy.

The following categories have thus been chosen for allocating the proceeds of this issuance (the percentages relate to a tentative maximum € 784.31m issuance financing all eligible projects).

Project Category	Project Area	Percentage
A	Education and Sustainability Research	54.9%
B	Inclusion and Social Coherence	3.6%
C	Public Transport and Local Mobility	21.6%
D	Climate Protection and Energy Transition	6.3%
E	Protection of Natural Resources	6.6%
F	Sustainable Urban Development	7.0%

Use of proceeds may include operating or capital expenditures (excluding personnel costs) in projects as well as indirect investments in projects such as grants for private and public companies and for special purposes.

In addition to belonging to one of the above categories, which are generally positive from a sustainability perspective, all projects meet specific and demanding sustainability standards. These are clearly defined and verifiable using qualitative criteria and quantitative indicators. At the same time, the criteria ensure a substantial positive impact of the projects that is not impaired by adverse impacts and effects in other areas (supply chain, environmental impacts, communities, etc.).

### 2) Process for Project Evaluation and Selection

The project selection for inclusion in the Sustainability Bond is based on the defined Sustainability Bond Framework (Part II of this document). This framework comprises eligible categories and specific criteria for budgetary item selection and verification.

The selection has been carried out by the Treasury Department of NRW in cooperation with other NRW ministries. In addition, oekom research has verified the compliance of budgetary items and the respective projects and activities financed with the Sustainability Bond Framework (Part III of this document).

### 3) Management of Proceeds

Consequently to the issuance of the Sustainability Bond, 100% of the net proceeds (€ 500m or more) will be used to finance selected eligible projects belonging to the 2014 budget, which continues until the end of the first quarter of 2015.

Details are listed in the following table (figures in millions of euros):

<i>Project Category</i>	<i>Project Area</i>	<i>Budget 2014</i>	<i>Eligible for Sust. Bond</i>
A	Expansion of universities of applied sciences	166.02	166.02
A	Bund-Länder-Covenant for the expansion of universities (state share)	519.52	207.81
A	Research initiative „Progress for NRW“ („Fortschritt NRW“)	15.90	15.90
A	Modernisation of university facilities	24.42	24.42
A	Consumer Protection	13.81	13.81
A	Research for sustainable development	0.49	0.49
A	Foundation for nature and sustainable development	2.00	2.00
B	European Social Fund (state share)	17.79	17.79
B	Inclusion of persons with disabilities	3.93	3.93
B	Support for sheltered workshops for persons with disabilities	4.97	4.97
B	Employment opportunities for persons with disabilities	1.59	1.59
C	Public transport for low-income citizens	29.26	29.26
C	Public transport for pupils and students	129.97	129.97
C	Transport infrastructure for cyclists and pedestrians	10.23	10.23
D	Enhancement of resource efficiency	4.57	4.57
D	Renewable energies	12.57	12.57
D	European fund for regional development (state share)	34.21	32.01
E	Soil protection	3.55	3.55
E	Protection of nature	24.23	24.23
E	Flood protection and river restoration	13.51	13.51
E	European agricultural fund for rural development (state share)	13.52	10.81
F	Urban renewal (projects “Social Cities” and “Urban Restructuring West”) (state share)	54.87	54.87
		<b>1,100.93</b>	<b>784.31</b>

#### 4) Reporting

NRW will publish relevant information and links to public project information on its website<sup>1</sup>.

The issuer will still decide whether the recommended quantitative indicators set out in the Sustainability Bond Framework will be used for reporting.

<sup>1</sup> <http://www.sustainability-bond.nrw.de>

## Part II – Sustainability Quality of the Sustainability Bond

### 1) Sustainability Bond Framework

The Sustainability 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 this Sustainability Bond issuance. The framework comprises firstly a clear definition of eligible categories of projects offering environmental added value. Secondly, it encloses the specific sustainability criteria for each project category by means of which this added value and therefore the sustainability performance of the Sustainability Bond can be clearly identified and verified. The sustainability criteria are complemented by specific and measurable indicators, which enable quantitative measurement of the sustainability performance of the sustainability bond and can be used for comprehensive reporting.

In addition, impact indicators may be defined/proposed for each project category, thus facilitating the provision of concrete information of environmental and social added value.

Details of the individual criteria and indicators for the six project categories can be found in Annex 1 ‘Sustainability Bond Framework’.

### 2) Verification of the projects refinanced by the Sustainability Bond

#### Methods

With the help of the quantitative indicators of the Sustainability Bond Framework, oekom research has verified whether the projects funded by the bond match the project categories and criteria listed in the framework.

The verification was carried out using publicly available information as well as information and documents provided to oekom research, in part on a confidential basis, by the State of NRW (strategy papers, explanatory information concerning budgetary items, federal German and NRW laws, regulations and standards, etc.).

#### Findings

##### A. Education and Sustainability Research

###### Sustainability Risks and Benefits of the Project Category

- Social and environmental benefits: Access to education as a prerequisite for successful integration in the working world and economic independence; understanding of sustainability-related contents enabling the society to tackle urgent social and environmental challenges such as climate change, demographic change or resource availability
- Potential social and environmental risks: Discrimination in access to education; lack of social and environmental standards in procurement as well as planning, construction and maintenance of education/research infrastructure; research and development of technologies with negative sustainability impact such as nuclear power or so-called clean coal technologies

###### • Non-discriminatory access to education

- ✓ For 100% of financed activities directed at the creation of additional study places, the respective public universities guarantee a non-discriminatory access to education and appropriate support through a system of scholarships in accordance with the UN Convention on Children’s Rights, the International Compact on Economic Social and Cultural Rights of 19 December 1966 (as published in “*Bundesgesetzblatt BGBL 1976*”) and the European Charta of Principal Rights.
- ✓ 100% of financed activities involve public universities and colleges that currently do not charge any study fees. A system of subsidised loans governed by the German Act on Support for Education (Bundesausbildungsförderungsgesetz - BAföG) assists socially disadvantaged students in covering their expenses for daily life.

- Exclusion of environmentally controversial energy technologies from funding
  - ✓ Research into controversial technologies such as nuclear power or coal-fired power plants is excluded from funding in 100% of financed activities directed at the promotion of sustainability research.
- Environmental and social supply chain / purchasing standards
  - ✓ For 100% of financed activities in this category, the Collective Bargaining and Public Procurement Act of North Rhine-Westphalia (“*Tariftreue- und Vergabegesetz NRW*”) ensures adequate social standards in the supply chain, covering 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.
  - ✓ For 100% of financed activities in this category, the Collective Bargaining and Public Procurement Act of North Rhine-Westphalia (“*Tariftreue- und Vergabegesetz NRW*”) bindingly requires environmental consideration of energy efficiency and other environmental aspects.
  - It remains unclear whether more comprehensive and specific environmental supply chain standards are applied in financed projects.
  - ✓ The implementation of the Collective Bargaining and Public Procurement Act of North Rhine-Westphalia (“*Tariftreue- und Vergabegesetz NRW*”) is monitored by an inspectorate (“*Prüfstelle*”).
- Energy efficiency of buildings
  - ✓ For 100% of new buildings and renovations financed, the German Energy-Saving Ordinance (“*EnEV*”) requires compliance with detailed and stringent energy performance standards.
- Working conditions for construction and maintenance workers
  - ✓ For 100% of financed activities in this category, the Collective Bargaining and Public Procurement Act of North Rhine-Westphalia (“*Tariftreue- und Vergabegesetz NRW*”) ensures adequate working conditions for contracted construction and maintenance workers, covering 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 implementation of the Collective Bargaining and Public Procurement Act of North Rhine-Westphalia (“*Tariftreue- und Vergabegesetz NRW*”) is monitored by an inspectorate (“*Prüfstelle*”).

## B. Inclusion and Social Coherence

### Sustainability Risks and Benefits of the Project Category

- Social and environmental benefits: Inclusion of people with disabilities will enhance their quality of life, contribute to a diverse, fair, peaceful and just society with equal opportunities and enable society to better benefit from the human capital of its population
  - Potential social and environmental risks: Discriminatory access to related programmes, e.g. through high fees and lacking strategy and goal-orientation of the respective offers
- Non-discriminatory access to programmes/offers/services
    - ✓ A non-discriminating and barrier-free society is a defined target of NRW’s sustainability policy and the financed activities in this category; 100% of financed activities are compliant with the UN Convention for Disabled People (“*Behindertenrechtskonvention*”) and the German Non-Discrimination Act (“*Antidiskriminierungsgesetz*”).
  - Free or fairly priced / subsidised participation in programmes/initiatives
    - ✓ 100% of vocational training and consultancy offers for disabled people realised through the European Social Fund, which is the only project in this category offering such services, are either free of charge or largely subsidised for participants.

## C. Public Transport and Local Mobility

### Sustainability Risks and Benefits of the Project Category

- Social and environmental benefits: Climate protection, fuel-efficiency and safety of transport, contribution to dematerialisation (reduced need for private cars in cities) and equality, health benefits of cycling/walking, improvement of local air quality
  - Potential social and environmental risks: Lack of social and environmental standards in procurement, planning, construction, maintenance and operation of public transport infrastructure and vehicles
- Fuel-efficient and renewables-powered vehicles
    - In order to improve urban air quality, most cities in NRW have established protective zones in the inner cities, in which only vehicles with a low-emission classification (e.g. in accordance with Euro 3 or Euro 4 limits for diesel-powered buses) may circulate. However, public transport providers may apply for exceptions. No information is available regarding the percentage of relevant financed transport activities using fuel-efficient and/or renewables-powered vehicles, the breakdown of fuels / power sources or the average/minimum efficiency class of vehicles/fleet used by public transportation organisations receiving support.
  - Environmental and social supply chain / purchasing standards
    - ✓ For 100% of activities directly financed by the State of NRW and for projects of large private beneficiaries, which are financed to at least 50% by the State of NRW, the Collective Bargaining and Public Procurement Act of North Rhine-Westphalia ("*Tariftreue- und Vergabegesetz NRW*") applies. It ensures adequate social standards in the supply chain, covering 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.
    - ✓ For 100% of activities directly financed by the State of NRW, the Collective Bargaining and Public Procurement Act of North Rhine-Westphalia ("*Tariftreue- und Vergabegesetz NRW*") bindingly requires environmental consideration of energy efficiency and other environmental aspects.
    - It remains unclear whether more comprehensive and specific environmental supply chain standards are applied in financed projects.
    - ✓ The implementation of the Collective Bargaining and Public Procurement Act of North Rhine-Westphalia ("*Tariftreue- und Vergabegesetz NRW*") is monitored by an inspectorate ("*Prüfstelle*").
    - No information is available with regard to procurement standards of private public transport operators, whose projects are financed to less than 50% by the State of NRW and it remains unclear which share of proceeds in this category goes to organisations/institutions not covered by the Collective Bargaining and Public Procurement Act of North Rhine-Westphalia ("*Tariftreue- und Vergabegesetz NRW*").
  - Working conditions for operators, construction and maintenance workers
    - ✓ For 100% of activities directly financed by the State of NRW and for projects of large private beneficiaries, which are financed to at least 50% by the State of NRW, the Collective Bargaining and Public Procurement Act of North Rhine-Westphalia ("*Tariftreue- und Vergabegesetz NRW*") applies. It ensures adequate social standards, covering 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 implementation of the Collective Bargaining and Public Procurement Act of North Rhine-Westphalia ("*Tariftreue- und Vergabegesetz NRW*") is monitored by an inspectorate ("*Prüfstelle*").
    - Apart from general national legislation ensuring comparatively high standards, no information is available with regard to working conditions at private public transport operators, whose projects are financed to less than 50% by the State of NRW and it remains unclear which share of proceeds in this category goes to organisations/institutions not covered by the Collective Bargaining and Public Procurement Act of North Rhine-Westphalia ("*Tariftreue- und Vergabegesetz NRW*").

## D. Climate Protection and Energy Transition

### Sustainability Risks and Benefits of the Project Category

#### D.1 Renewables

- Social and environmental benefits: Climate protection due to the shift to less CO<sub>2</sub>-intensive energy supply
- Potential social and environmental risks: hazardous substances in equipment such as solar cells and its disposal, biodiversity and land use impacts of power plant construction, lack of purchasing and supply chain standards (technical equipment), insufficient information of and consultation with local communities, construction and maintenance workers' health and safety

#### D.2 Energy Efficiency

- Social and environmental benefits: Climate, environmental and resource protection due to decreased energy demand
- Potential social and environmental risks: Projects related to fossil fuels or controversial business areas, efficiency improvements resulting in a still mediocre efficiency, lack of purchasing and supply chain standards (technical equipment), construction and maintenance workers' health and safety

- Exclusion of controversial business areas
  - ✓ Controversial business areas such as armaments, pesticides and tobacco and environmentally controversial energy forms such as nuclear power or fossil-fuelled energy generation are excluded from funding in 100% of financed activities.
- Energy-efficiency improvement and resulting energy savings and efficiency
  - NRW's Climate Protection Act includes long- and mid-term quantitative overall GHG emission reduction targets. On the individual project level, resource efficiency consulting including an analysis of the savings potential is carried out in order to maximise the realisation of this potential in the implementation phase. However, no information is available with respect to the percentage of energy-efficiency improvement achieved, the absolute amount of energy savings achieved, and the resulting energy efficiency (thermal efficiency with power plants, production-related efficiency, efficiency class).
- Environmental and social supply chain / purchasing standards
  - ✓ For 100% of activities directly financed by the State of NRW and for projects of large private beneficiaries, which are financed to at least 50% by the State of NRW, the Collective Bargaining and Public Procurement Act of North Rhine-Westphalia ("*Tariftreue- und Vergabegesetz NRW*") applies. It ensures adequate social standards in the supply chain, covering 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 implementation of the Collective Bargaining and Public Procurement Act of North Rhine-Westphalia ("*Tariftreue- und Vergabegesetz NRW*") is monitored by an inspectorate ("*Prüfstelle*").
  - ✓ For 100% of activities directly financed by the State of NRW, the Collective Bargaining and Public Procurement Act of North Rhine-Westphalia ("*Tariftreue- und Vergabegesetz NRW*") bindingly requires environmental consideration of energy efficiency and other environmental aspects.
  - It remains unclear whether more comprehensive and specific environmental supply chain standards are applied in financed projects.
  - No information is available with regard to the procurement standards applied by companies receiving support for climate protection and energy efficiency measures whose projects are financed to less than 50% by the State of NRW and it remains unclear which share of proceeds in this category goes to organisations/institutions not covered by the Collective Bargaining and Public Procurement Act of North Rhine-Westphalia ("*Tariftreue- und Vergabegesetz NRW*").

- Stakeholder consultation
  - For relevant financed operations involving the construction of infrastructure, stakeholder participation as an integrated part of the planning and approval process is regulated by the German Construction Act and Local Land Use and Development Plans. However, regulation provides for stakeholder participation only in specific cases and transparency on such processes could be further enhanced. The State of NRW has published a brochure to assist stakeholders in understanding their rights and the possibilities to participate in approval processes for infrastructure projects (*“Bürgerleitfaden – Beteiligung bei Planung und Genehmigungsverfahren”*).

## E. Protection of Natural Resources

### Sustainability Risks and Benefits of the Project Category

- Social and environmental benefits: Abundant, available and uncontaminated natural resources fulfil important ecosystem functions and provide the basis for life, prosperity and health
  - Potential social and environmental risks: some measures which might be proposed/assigned to this category such as flood protection, wastewater treatment and waste management may have negative impacts on the ecological quality of natural resources if they are not carried out in accordance with best (ecological) practice
- Ecological flood protection and river restoration
    - ✓ For 100% of relevant financed activities, scientifically based ecological flood protection measures modelled on the natural state of the water body are carried out and exclude conventional flood protection (technical regulation of rivers).
  - Waste treatment/disposal in accordance with best practice / high environmental standards
    - ✓ For 100% of financed activities, compliance with the Basel Convention on transboundary movements of hazardous waste is ensured.
  - Environmental and social supply chain / purchasing standards
    - ✓ For 100% of activities directly financed by the State of NRW and for projects of large private beneficiaries, which are financed to at least 50% by the State of NRW, the Collective Bargaining and Public Procurement Act of North Rhine-Westphalia (*“Tariftreue- und Vergabegesetz NRW”*) applies. It ensures adequate social standards in the supply chain, covering 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.
    - ✓ For 100% of activities directly financed by the State of NRW, the Collective Bargaining and Public Procurement Act of North Rhine-Westphalia (*“Tariftreue- und Vergabegesetz NRW”*) bindingly requires environmental consideration of energy efficiency and other environmental aspects.
    - It remains unclear whether more comprehensive and specific environmental supply chain standards are applied in financed projects.
    - ✓ The implementation of the Collective Bargaining and Public Procurement Act of North Rhine-Westphalia (*“Tariftreue- und Vergabegesetz NRW”*) is monitored by an inspectorate (*“Prüfstelle”*).
    - No information is available with regard to the procurement standards applied by private companies providing waste management or environmental remediation and clean-up services whose projects are financed to less than 50% by the State of NRW and it remains unclear which share of proceeds in this category goes to organisations/institutions not covered by the Collective Bargaining and Public Procurement Act of North Rhine-Westphalia (*“Tariftreue- und Vergabegesetz NRW”*).
  - Stakeholder consultation
    - ✓ For relevant financed operations involving the construction of infrastructure, stakeholder participation as an integrated part of the planning and approval process is regulated by the German Construction Act and Local Land Use and Development Plans. However, regulation provides for stakeholder participation only in specific cases and transparency on such processes could be further enhanced. NRW has published a brochure to assist stakeholder in understanding their rights and the possibilities to participate in approval processes for infrastructure projects (*“Bürgerleitfaden – Beteiligung bei Planung und Genehmigungsverfahren”*).

- Construction and maintenance workers' health and safety
  - ✓ For 100% of financed activities in this category, the Collective Bargaining and Public Procurement Act of North Rhine-Westphalia ("*Tariftreue- und Vergabegesetz NRW*") ensures adequate working conditions for contracted construction and maintenance workers, covering 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 implementation of the Collective Bargaining and Public Procurement Act of North Rhine-Westphalia ("*Tariftreue- und Vergabegesetz NRW*") is monitored by an inspectorate ("*Prüfstelle*").

## F. Sustainable Urban Development

### Sustainability Risks and Benefits of the Project Category

- Social and environmental benefits: integration and respecting the needs of all demographic and societal groups as well as promoting the environmental quality of cities will contribute to the quality of life in cities and make them more diverse, peaceful, productive and attractive
  - Potential social and environmental risks: insufficient information of and consultation with local inhabitants/citizens necessary to align planning with their needs, land use and biodiversity impacts of infrastructure, construction and maintenance workers' health and safety
- Stakeholder consultation
    - ✓ For relevant financed operations involving the construction of infrastructure, stakeholder participation as an integrated part of the planning and approval process is regulated by the German Construction Act and Local Land Use and Development Plans. However, regulation provides for stakeholder participation only in specific cases and transparency on such processes could be further enhanced. NRW has published a brochure to assist stakeholder in understanding their rights and the possibilities to participate in approval processes for infrastructure projects ("*Bürgerleitfaden – Beteiligung bei Planung und Genehmigungsverfahren*").
  - Environmental and social supply chain / purchasing standards
    - ✓ For 100% of activities directly financed by the State of NRW and for projects of large private beneficiaries, which are financed to at least 50% by the State of NRW, the Collective Bargaining and Public Procurement Act of North Rhine-Westphalia ("*Tariftreue- und Vergabegesetz NRW*") applies. It ensures adequate social standards in the supply chain, covering 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.
    - ✓ For 100% of activities directly financed by the State of NRW, the Collective Bargaining and Public Procurement Act of North Rhine-Westphalia ("*Tariftreue- und Vergabegesetz NRW*") bindingly requires environmental consideration of energy efficiency and other environmental aspects.
    - It remains unclear whether more comprehensive and specific environmental supply chain standards are applied in financed projects.
    - ✓ The implementation of the Collective Bargaining and Public Procurement Act of North Rhine-Westphalia ("*Tariftreue- und Vergabegesetz NRW*") is monitored by an inspectorate ("*Prüfstelle*").
    - No information is available with regard to the procurement standards applied by companies receiving support for climate protection and energy efficiency measures whose projects are financed to less than 50% by the State of NRW and it remains unclear which share of proceeds in this category goes to organisations/institutions not covered by the Collective Bargaining and Public Procurement Act of North Rhine-Westphalia ("*Tariftreue- und Vergabegesetz NRW*").

- Energy efficiency of buildings
  - ✓ For 100% of new buildings and renovations financed, the German Energy-Saving Ordinance (“EnEV”) requires compliance with detailed and stringent energy performance standards.
  
- Working conditions for construction and maintenance workers
  - ✓ For 100% of financed activities in this category, the Collective Bargaining and Public Procurement Act of North Rhine-Westphalia (“*Tariftreue- und Vergabegesetz NRW*”) ensures adequate working conditions for contracted construction and maintenance workers, covering 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 implementation of the Collective Bargaining and Public Procurement Act of North Rhine-Westphalia (“*Tariftreue- und Vergabegesetz NRW*”) is monitored by an inspectorate (“*Prüfstelle*”).

## Part III – assessment of the Federal Republic of Germany’s sustainability performance

In order to evaluate the sustainability performance of public authority bond issuers, oekom research applies the rating of the country which these form part of. In the oekom Country Rating with a rating scale from A+ (excellent) to D- (poor), the Federal Republic of Germany was awarded a score of B- and classified as “Prime”. This means that the country performed well in terms of sustainability. In oekom research’s view, the bonds issued by the regional and local public authorities of Germany all meet the basic requirements for sustainable investments.



As at 9 February 2015, this rating puts Germany in 14th place out of 57 countries rated by oekom research.

The oekom Country Rating evaluates the following six areas in order to determine the sustainability performance of a country:

### Social Rating

- Political System and Governance
- Human Rights and Fundamental Freedoms
- Social Conditions

### Environmental Rating

- Natural Resources
- Climate Change and Energy
- Production and Consumption

Germany achieved a rating that was significantly above the average of all countries in the social part of the rating. In the environmental part, the country shows an average or slightly above average performance of all rated countries.

None of the exclusion criteria screened by oekom research are violated by the Federal Republic of Germany.

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

oekom research AG  
Munich, 12 February 2015

### 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.
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### 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.

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## **Annex**

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

## Annex 1: Sustainability Bond Framework

### Background

The German State of North Rhine-Westphalia (NRW) aims to issue its first sustainability bond. The goal is to promote and illustrate NRW's sustainability policy and at the same time to enable the refinancing of projects and initiatives with clear environmental and social benefits in NRW. In accordance with NRW's sustainability policy, proceeds from this bond will be allocated to initiatives and projects in key action areas for sustainable development.

NRW's strategy<sup>2</sup> defines the following key sustainability themes and potential action areas as well as cross-border themes.

Key sustainability themes and potential action areas:

- Climate Change
- Energy Transition
- Sustainable Business
  1. Environmental business strategy NRW
  2. Lead market strategy NRW
  3. CSR strategy NRW
  4. Research strategy 'Progress for NRW'
- Protection of Natural Resources (biodiversity, forests, water, land/soil, sustainable land management, air, environment and health)
- Demographic Change
- Social Coherence and Poverty
- Good and Fair Work
- Integration of Minorities
- Sustainable Urban Development
- Local Mobility
- Sustainable Consumption
- Education in Sustainability
- One World Politics
- Sustainable Public Finance

Cross-border themes:

- Education and Science
- Local Sustainability Agenda
- Gender Mainstreaming
- Absence of Barriers / Inclusion
- Engagement and Participation of Citizens
- European and International Dimension
- Regional Socio-Economic Development

<sup>2</sup> [http://www.umwelt.nrw.de/fileadmin/redaktion/PDFs/strategiepapier\\_nachhaltigkeitstrategie\\_nrw\\_2014.pdf](http://www.umwelt.nrw.de/fileadmin/redaktion/PDFs/strategiepapier_nachhaltigkeitstrategie_nrw_2014.pdf)

## Objectives of this framework

The Sustainability Bond Framework serves as a structure for verifying the sustainability quality – i.e. the social and environmental added value – of the projects and initiatives to be financed through the sustainability bond issuance.

Based on the key sustainability themes outlined in NRW's strategy, the framework defines clearly demarcated eligible use-of-proceeds categories with both significant expenditures beyond legal obligations of the State of North Rhine-Westphalia and a very distinct social and/or environmental added value, reflecting NRW's sustainability strategy in a holistic, balanced and comprehensive way.

For each of the eligible categories, the framework further defines specific sustainability criteria by means of which this added value and therefore the sustainability performance of the sustainability bond can be clearly identified and verified. The sustainability criteria are complemented by indicators which enable quantitative measurement of the sustainability performance of the sustainability bond and can be used for comprehensive reporting.

## Use of proceeds

The proceeds of this first sustainability bond issued by the State of NRW will be exclusively used for financing projects and initiatives in the following categories:

- A. Education and Sustainability Research
- B. Inclusion and Social Coherence
- C. Public Transport and Local Mobility
- D. Climate Protection and Energy Transition
- E. Protection of Natural Resources
- F. Sustainable Urban Development

The use of proceeds may include operating or capital expenditures (excluding personnel costs) of projects as well as indirect investments in projects such as grants for private and public companies and for special purposes.

## Sustainability criteria and quantitative indicators for use-of-proceeds categories

In order to allow the prevention of the remaining related environmental and social risks linked to potential projects and for opportunities to be clearly fostered, a list of sustainability criteria has been established by oekom research for each project category.

Each sustainability criterion is complemented by one or several quantitative indicators, which allow meaningful and high-quality verification. It is also recommended by oekom research to use these and/or additional quantitative impact-related indicators for target-setting and reporting of performance/compliance.

The State of NRW will publish relevant information and links to public project information on its website.

### A. Education and Sustainability Research

#### Definition of category and examples of eligible projects:

Full and non-discriminatory access to high-quality public education and promotion of research centred on sustainable development

Examples: Increase of study places urgently needed at present due to changes in the educational system as the secondary school term in Germany was shortened by one year, construction of new day-care/school/university buildings, energetic renovation of existing buildings

- Non-discriminatory access to education  
Quantitative Indicator: Percentage of financed activities in which non-discriminatory access to education is guaranteed
- No research into controversial technologies such as nuclear power or so-called 'clean coal'  
Quantitative Indicator: Percentage of financed activities not related to controversial technologies such as nuclear power or coal-fired power plants
- Environmental and social supply chain / purchasing standards  
Quantitative Indicator: Percentage of financed activities for which adequate environmental and social supply chain / purchasing standards are in place
- Energy efficiency of buildings  
Quantitative Indicator: Percentage of relevant financed activities for which the energy efficiency of renovated/new buildings fulfils stringent standards
- Working conditions for construction and maintenance workers  
Quantitative Indicator: Percentage of financed activities for which labour rights are safeguarded and adequate working standards are in place

## B. Inclusion and Social Coherence

### Definition of category and examples of eligible projects:

Inclusion and removal of obstacles for people with disabilities to enable full and non-discriminatory access to all aspects of life, including education, work, transport, recreation, and culture as well as public and legal/administrative services

Examples: Projects including and integrating people with disabilities in education systems (primary, secondary and higher education, vocational training, training for specific skills, etc.)

- Non-discriminatory access to programmes/offers/services  
Quantitative Indicator: Percentage of financed activities in which non-discriminatory access to education is guaranteed
- Free or fairly priced / subsidised participation in programmes/initiatives  
Quantitative Indicators: Percentage of financed activities for which participation is free of charge, fairly priced and/or subsidised for socially disadvantaged participants

## C. Public Transport and Local Mobility

### Definition of category and examples of eligible projects:

Enabling, improving and promoting public transport by bus or train, as well as individual mobility by bicycle / on foot

Examples: Subsidised public transport for socially disadvantaged people and students/apprentices, creation of bicycle lanes and sidewalks

- Fuel-efficient and renewables-powered vehicles  
Quantitative Indicators: Percentage of relevant financed transport activities using fuel-efficient and/or renewables-powered vehicles; breakdown of fuels / power sources used by public transportation organisations receiving support; average/minimum efficiency class of vehicles/fleet
- Environmental and social supply chain / purchasing standards  
Quantitative Indicator: Percentage of relevant financed activities for which adequate environmental and social supply chain /purchasing standards are in place
- Working conditions for operators, construction and maintenance workers  
Quantitative Indicator: Percentage of relevant financed activities for which labour rights are safeguarded and adequate working standards are in place

## D. Climate Protection and Energy Transition

### D.1. Renewable Energy

#### Definition of category and examples of eligible projects:

All forms of renewable energy excluding large (> 20 MW) new hydropower installations; improvements to the electricity grid targeted at better integrating renewable power; and energy storage solutions aimed at storing excess renewable electricity production

Examples: Wind and solar power projects

- Environmental aspects of technology used  
Quantitative Indicator: Percentage of relevant financed activities for which environmental design and performance standards apply (e.g. as regards life cycle assessment, efficiency, recyclability)
- Environmental planning and management of power plants  
Quantitative Indicator: Percentage of relevant financed activities that fulfil high environmental standards and requirements
- Environmental and social supply chain / purchasing standards  
Quantitative Indicator: Percentage of relevant financed activities for which adequate environmental and social supply chain / purchasing standards are in place
- Stakeholder consultation  
Quantitative Indicator: Percentage of relevant financed activities for which community/stakeholder dialogue is conducted as an integrated part of the planning process and during operation
- Construction and maintenance workers' health and safety  
Quantitative Indicator: Percentage of financed activities for which labour rights are safeguarded and adequate working standards are in place

### D.2. Energy Efficiency

#### Definition of category and examples of eligible projects:

Energy-efficiency improvements at industrial sites, commercial activities, public buildings and installations, and private households as well as in public and private transportation, excluding fossil-fuelled electricity and heat generation

Examples: use of waste/excess heat at industrial sites or replacement of energy-intensive equipment/machinery with state-of-the-art efficient technology

- Exclusion of controversial business areas  
Quantitative Indicator: Percentage of financed activities not related to controversial business areas such as armaments, crude oil and derivatives, coal and lignite, nuclear power, pesticides and/or tobacco
- Energy-efficiency improvement and resulting energy savings and efficiency  
Quantitative indicators: Percentage of energy-efficiency improvement achieved; absolute amount of energy savings achieved; resulting energy efficiency (thermal efficiency with power plants, production-related efficiency, efficiency class)
- Environmental and social supply chain / purchasing standards  
Quantitative Indicator: Percentage of relevant financed activities for which adequate environmental and social supply chain / purchasing standards are in place
- Stakeholder consultation  
Quantitative Indicator: Percentage of relevant financed activities for which community/stakeholder dialogue is conducted as an integrated part of the planning process and during operation
- Construction and maintenance workers' health and safety  
Quantitative Indicator: Percentage of financed activities for which labour rights are safeguarded and adequate working standards are in place

## E. Protection of Natural Resources

### Definition of category and examples of eligible projects:

Protection of natural resources against overexploitation, degradation and pollution as well as restoration of the natural functions and quality of water resources, soil and air

Examples: biodiversity projects; sustainable forest management and agriculture; ecological restoration of rivers; protection and responsible management of water resources; avoidance of / decrease in land and soil consumption and degradation; protection of mankind and the environment against hazardous chemicals and pollutants as well as noise; sustainable generation, sourcing and use of (waste) biomass; sustainable waste management

- Ecological flood protection and river restoration  
Quantitative Indicators: Percentage of relevant financed activities not related to conventional flood protection (regulation of rivers); percentage of relevant financed activities for which the relevant plans are scientifically monitored and are modelled on the natural state of the water body
- Waste treatment/disposal in accordance with best practice / high environmental standards  
Quantitative Indicators: Percentage of relevant financed activities for which landfill disposal of untreated waste is excluded; percentage of relevant financed activities for which incineration is only carried out with use/recovery of waste heat and state-of-the-art exhaust treatment; percentage of relevant financed activities for which compliance with the Basel Convention on transboundary movements of hazardous waste is ensured
- Environmental and social supply chain / purchasing standards  
Quantitative Indicator: Percentage of relevant financed activities for which adequate environmental and social supply chain /purchasing standards are in place
- Stakeholder consultation  
Quantitative Indicator: Percentage of relevant financed activities for which community/stakeholder dialogue is conducted as an integrated part of the planning process and during operation
- Construction and maintenance workers' health and safety  
Quantitative Indicator: Percentage of financed activities for which labour rights are safeguarded and adequate working standards are in place

## F. Sustainable Urban Development

### Definition of category and examples of eligible projects:

Improvements to the social and ecological quality of cities taking into account demographic developments and needs

Examples: projects contributing to the solution of structural deficits in socially disadvantaged neighbourhoods; urban planning to suit the needs of elderly, handicapped and mobility-restricted citizens; and projects to increase or improve the quality of recreational green areas and the urban air quality

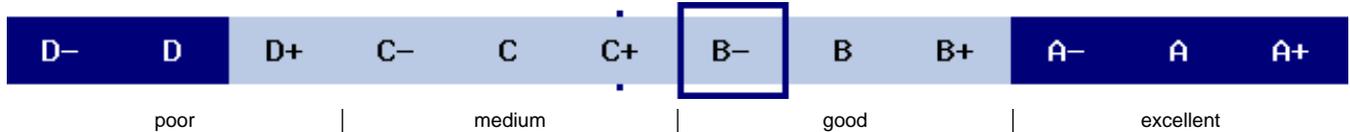
- Stakeholder consultation  
Quantitative Indicator: Percentage of relevant financed activities for which community/stakeholder dialogue is conducted as an integrated part of the planning process and during operation
- Environmental and social supply chain / purchasing standards  
Quantitative Indicator: Percentage of relevant financed activities for which adequate environmental and social supply chain /purchasing standards are in place
- Energy efficiency of buildings  
Quantitative Indicator: Percentage of relevant financed activities for which the energy efficiency of renovated/new buildings fulfils stringent standards
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Quantitative Indicator: Percentage of financed activities for which labour rights are safeguarded and adequate working standards are in place

## oekom Country Rating

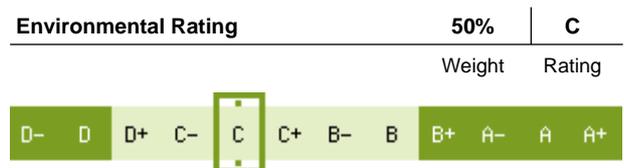
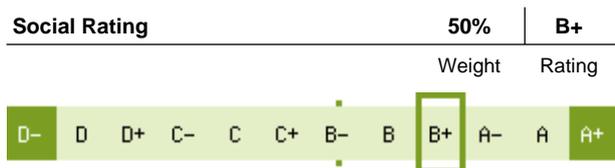
# Germany

Score **55.42%**  
Rank **14 out of 57**

Status **Prime**  
Rating **B-**



- A country is being classified as Prime if it ranks among the world's best countries and fulfills the minimum requirements defined by oekom research (best in class).
- The highlighted sections on the rating scales indicate the range of ratings achieved. The average rating is marked with a vertical line.
- If relevant information is not made available, it may result in a poorer rating of the country within the applied rating method.



### Strengths and Weaknesses

#### Social Rating

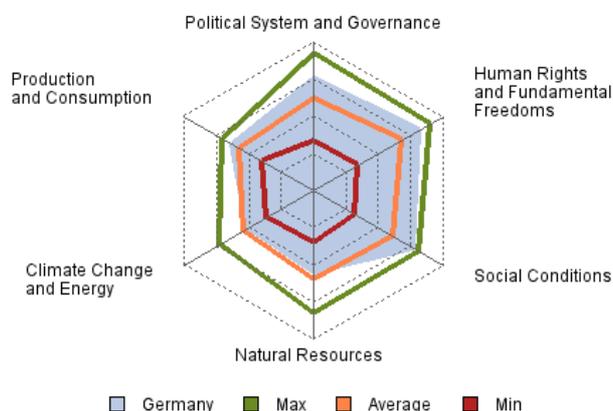
- Political System and Governance**  
 + relatively high level of government effectiveness  
 + high political stability  
 - relatively high general government gross debt
- Human Rights and Fundamental Freedoms**  
 + human rights largely observed  
 - insufficient gender equality
- Social Conditions**  
 + high employment rate  
 + low youth unemployment rate  
 - relatively high at-risk of poverty rate

#### Environmental Rating

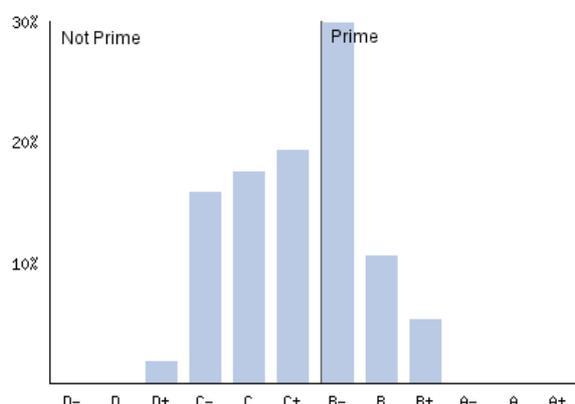
- Natural Resources**  
 + relatively low water consumption per capita  
 - high number of threatened animal species  
 - high share of sealed area
- Climate Change and Energy**  
 + low energy consumption relative to GDP  
 - no comprehensive national and international climate policy  
 - coal and gas form high proportion of energy mix
- Production and Consumption**  
 + above average level of corporate social responsibility  
 + high level of material productivity  
 - high private consumption in the fields of cars, meat, energy, etc.

### Benchmark Results

#### Rating Categories



#### Breakdown of Ratings



# Germany

## Country Profile

National territory (2014):	357,120.00	[in km2]
National population (2014):	80,996.00	[in 1,000]
Population density (2014):	226.80	[persons / km2]
Average annual population change (2013):	0.24	[as % of national population]
Human Development Index (2014):	6.00	[Rank]
Unemployment rate (2013):	5.30	[as % of labour force]
GDP per Capita (2013):	40,868.00	[in USD (PPP) per capita]
Real GDP growth (2013):	0.50	[in %]
Consumer prices (2013):	1.60	[in %]
Budget deficit (2013):	0.20	[as % of GDP]
General government gross debt (2013):	78.40	[as % of GDP]
Current account balance (2013):	7.00	[as % of GDP]

## Exclusion Criteria

	Yes	No		Yes	No
Authoritarian Regime	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Freedom of Speech and Press	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Child Labour	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Human Rights	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Climate Protection	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Labour Rights	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Corruption	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Military Budget	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Death Penalty	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Money Laundering	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Discrimination	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Nuclear Power	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Euthanasia	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Nuclear Weapons	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Freedom of Association	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Whaling	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Comments

An overview of the way in which the individual exclusion criteria are applied in practice can be found at [www.oekom-research.com](http://www.oekom-research.com).

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