

SECOND PARTY OPINION (SPO)

Sustainability Quality of the Issuer and Sustainability Bond Framework

State of North Rhine-Westphalia
17 May 2022

VERIFICATION PARAMETERS

Type(s) of instruments contemplated	<ul style="list-style-type: none">• Sustainability Bond
Relevant standards	<ul style="list-style-type: none">• Green Bond Principles, Social Bond Principles and Sustainability Bond Guidelines, administered by the International Capital Market Association (June 2021)
Scope of verification	<ul style="list-style-type: none">• NRW Sustainability Bond Framework (as of 03.03.2021)• NRW Eligible Projects (as of 23.03.2022)
Lifecycle	<ul style="list-style-type: none">• Pre-issuance verification
Validity	<ul style="list-style-type: none">• As long as there is no material change to the Framework and the eligible Projects

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Scope of work

The State of North Rhine-Westphalia (“NRW” or “the issuer”) commissioned ISS ESG to assist with its Sustainability Bond by assessing four core elements to determine the sustainability quality of the instrument:

1. The Sustainability Bond link to NRW’s sustainability strategy – drawing on Germany’s overall sustainability profile and the Framework’s issuance-specific Use of Proceeds categories.
2. NRW’s Sustainability Bond Framework (03.03.2021 version) – benchmarked against the International Capital Market Association’s (ICMA) Green Bond Principles (GBP), Social Bond Principles (SBP) & Sustainability Bond Guidelines (SBG).
3. The Eligible Projects – whether the nominated project categories contribute positively to the UN SDGs.
4. The alignment with the EU Taxonomy on a best-efforts basis¹ – whether the eligible projects are aligned with the EU Taxonomy Technical Screening Criteria (including the Climate Change Mitigation Criteria and Do No Significant Harm Criteria) and Minimum Social Safeguards requirements as included in the EU Taxonomy Climate Delegated Act (June 2021).

¹ Whilst the Final Delegated Act for Mitigation and Adaptation were published in June 2021, the Technical Screening Criteria allow for discretion on the methodologies in determining alignment in certain cases. Therefore, at this stage ISS ESG evaluates the alignment with the EU Taxonomy on a “best efforts basis”.

ISS ESG ASSESSMENT SUMMARY

SPO SECTION	SUMMARY	EVALUATION ²
<p>Part 1:</p> <p>Sustainability Bond link to issuer's sustainability strategy</p>	<p>According to the ISS ESG Corporate Rating published on 03.03.2022, Germany, the country in which NRW is located, demonstrates a good sustainability performance against its peer group on key ESG issues faced by the sovereigns. Germany is rated 13th out of 121 countries rated by ISS ESG.</p> <p>The Use of Proceeds categories (re)financed under the Sustainability Bond Framework of NRW are consistent with the issuer's sustainability strategy and material ESG topics for sovereign and sub-sovereign issuers. The rationale for issuing sustainability bonds is clearly described by the issuer.</p>	<p>Consistent with issuer's sustainability strategy</p>
<p>Part 2:</p> <p>Alignment with GBP, SBP & GBP</p>	<p>The issuer has defined a formal concept for its Sustainability Bond Framework regarding use of proceeds, processes for project evaluation and selection, management of proceeds and reporting. This concept is in line with the Green Bond Principles, Social Bond Principles and Sustainability Bond Guidelines administered by the ICMA.</p>	<p>Aligned</p>
<p>Part 3:</p> <p>Sustainability quality of the eligible projects</p>	<p>The overall sustainability quality of the eligible projects in terms of sustainability benefits, risk avoidance and minimisation is good based upon the ISS ESG assessment. The Sustainability Bond will (re-)finance various green, social and sustainable eligible projects.</p> <p>Those use of proceeds categories have a positive contribution to the following SDGs: 1 "No Poverty", 2 "Zero Hunger", 3 "Good Health and Well-Being", 4 "Quality Education", 5 "Gender Equality", 7 "Affordable and Clean Energy", 8 "Decent Work and Economic Growth", 10 "Reduced Inequalities", 11 "Sustainable Cities and Communities", 13 "Climate Action", 16 "Peace, Justice and Strong Institutions".</p>	<p>Positive</p>

² ISS ESG's evaluation is based on the NRW's Sustainability Bond Framework (as of 03.03.2021), on the analysed Eligible Projects as received on the 23.03.2022, and on the ISS ESG Corporate Rating applicable at the SPO delivery date (updated on 03.03.2022).

SPO SECTION	SUMMARY
<p>Part 4: Alignment with EU Taxonomy</p>	<p>ISS ESG assessed the alignment of NRW's following eligible green projects against the requirements of the EU Taxonomy (Climate Delegated Act of June 2021), on a best-efforts basis³:</p> <ul style="list-style-type: none"> • Pumped-storage hydroelectricity plants • Energy systems of the future, system transformation, innovation, e-mobility and energy efficiency • Enhancement of resource efficiency • Energy research offensive and real laboratories • Infrastructure for cyclists and pedestrians • Flood protection • Forests restoration • Conservation, remediation and enlargement of university clinics as well as other investments <p>Based on compliance with relevant regulations and EU legislation, the nominated project categories correspond with the following EU Taxonomy activities which have a substantial contribution to Climate Change Mitigation:</p> <ul style="list-style-type: none"> • 1.2. Rehabilitation and restoration of forests, including reforestation and natural forest regeneration after an extreme event • 4.1 Electricity generation using solar photovoltaic technology • 4.10. Storage of electricity • 6.4. Operation of personal mobility devices, cycle logistics • 6.5. Transport by motorbikes, passenger cars and light commercial vehicles • 6.13 Infrastructure for personal mobility, cycle logistics • 7.2. Renovation of existing buildings • 7.4. Installation, maintenance and repair of charging stations for electric vehicles in buildings (and parking spaces attached to buildings) • 7.6. Installation, maintenance and repair of renewable energy technologies • 7.7 Acquisition and ownership of buildings • 9.1. Close to market research, development and innovation <p>as well as the following activity for substantial contribution to Climate Change Adaptation</p> <ul style="list-style-type: none"> • 5.1. Construction, extension and operation of water collection, treatment and supply systems <p>The listed activities are considered to be:</p> <ul style="list-style-type: none"> • Aligned with the respective criteria for Substantial Contribution to Climate Change Mitigation and Adaptation • Aligned with the Do No Significant Harm Criteria, except for Activity 7.2 (DNSH to Water and Marine Resources) • Aligned with the Minimum Social Safeguards

ISS ESG SPO ASSESSMENT

PART I: SUSTAINABILITY BOND LINK TO NRW'S SUSTAINABILITY STRATEGY

A. ASSESSMENT OF GERMANY'S ESG PERFORMANCE

The ISS ESG Country Rating provides material and forward-looking environmental, social and governance (ESG) data and performance assessments. For the purpose of assessing NRW's ESG performance, ISS ESG used Germany Country Rating as a basis for this assessment.

COUNTRY	STATUS	RATING	DECILE RANK
GERMANY	PRIME	B	1

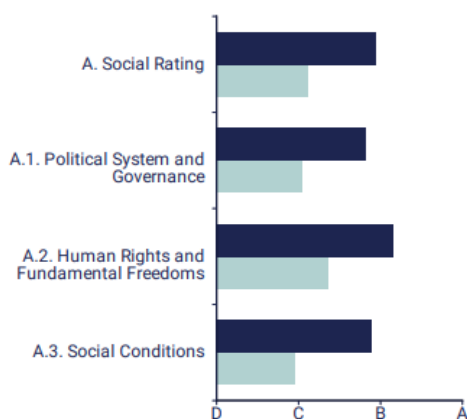
This means that Germany currently shows a good sustainability performance against other countries assessed by ISS ESG.

ESG performance

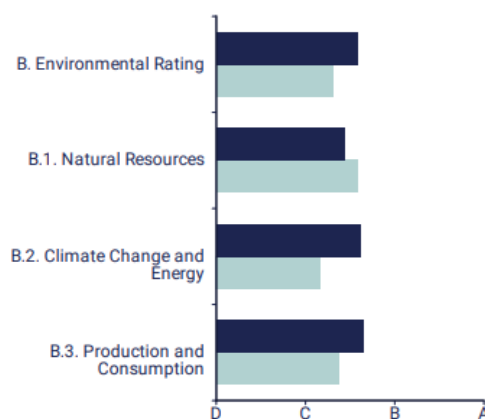
As of 03.03.2022, this Rating places Germany 13th out of 121 countries rated by ISS ESG.

Key challenges faced by sovereign issuers in terms of sustainability management are displayed in the charts below, as well as Germany's performance against those key challenges in comparison to the other countries' average performance.

Governance and Social Performance



Environment Performance



Legend: ■ Universe ■ Country ⁴

³ Whilst the Final Delegated Act for Mitigation and Adaptation were published in June 2021, the Technical Screening Criteria allow for discretion on the methodologies in determining alignment in certain cases. Therefore, at this stage ISS ESG evaluates the alignment with the EU Taxonomy on a "best efforts basis".

⁴ The tables reflect the rating on an absolute scale, ranging from D- (poor) to A+ (excellent). For further information on the ESG Country Rating methodology, please refer to Annex 2.

Breaches of international norms and ESG controversies

The country is not involved in severe controversies.

B. CONSISTENCY OF SUSTAINABILITY BOND WITH NRW'S SUSTAINABILITY STRATEGY

Key sustainability objectives and priorities defined by the issuer

NRW adopted a sustainability strategy in 2016 and an updated version in 2020⁵. The content, goals and measures of the strategy aim to be aligned with the federal German Sustainable Development Strategy (2018 update) and the UN SDGs. NRW commits to ensure that the activities at the federal and State level support each other and to achieve a substantial German contribution to the implementation of the SDGs. The main principles of the German sustainability strategy of 2018 include:

1. Apply sustainable development as a guiding principle consistently in all areas and in all decisions
2. Take global responsibility
3. Preserve natural resources
4. Strengthen sustainable management
5. Maintain and improve social cohesion in an open society
6. Use education, science and innovation as drivers of sustainable development

Nonetheless, NRW's sustainability strategy also considers the state's specific socioeconomic characteristics, such as a high settlement density, a high proportion of industry with many energy-intensive companies and a high proportion of migrant population. Relatedly, the strategy addresses a variety of sustainable development challenges that are specific to the state of North Rhine-Westphalia, including sustainable and affordable energy supply, climate adaptation, biodiversity, social cohesion and gender equality (among others).

NRW commits to regular and transparent reporting on progress made in this context.

Rationale for issuance

The State of NRW launched a Sustainability Bond programme to finance its sustainability related projects. According to NRW, it plays a particularly pioneering role in issues such as sustainability bonds and, with a total volume of more than 16 billion euros which it placed on the financial markets in the past few years, is one of the largest public issuer of sustainability bonds worldwide.

NRW states that, by realizing projects in areas listed in its Sustainability Bond Framework, it positively contributes to several SDGs which form the basis of NRW's Sustainability Strategy. By that, the concept of the Sustainability Bonds is closely related to the Sustainability Strategy for North Rhine-Westphalia which serves as the political reference for the Sustainability Bonds. Progress in the implementation of the strategy is being measured using indicators which are assigned to the 17 SDGs. The first Sustainability Indicator Report was published in 2016. In addition, the indicators are regularly being updated, with results published on a dedicated website.

⁵ [Sustainability Strategy 2020 NRW](#)

Contribution of Use of Proceeds categories to sustainability objectives and priorities

ISS ESG mapped the Use of Proceeds categories financed under this Sustainability Bond Framework with the sustainability objectives defined by the issuer, and with the key ESG challenges as defined in the ISS ESG Country Rating methodology. Key ESG challenges are key issues that are highly relevant for sovereign or sub-sovereign issuers when it comes to sustainability. From this mapping, ISS ESG derived a level of contribution to the strategy of each Use of Proceeds categories.

USE OF PROCEEDS CATEGORY ⁶	SUSTAINABILITY OBJECTIVES FOR THE ISSUER	KEY ESG INDUSTRY CHALLENGES	CONTRIBUTION
Green eligible activities	✓	✓	Contribution to material objectives
Social eligible activities	✓	✓	Contribution to material objectives

Opinion: *ISS ESG finds that the Use of Proceeds categories (re)financed under the Sustainability Bond Framework of NRW are consistent with the issuer’s sustainability strategy and material ESG topics for sovereign and sub-sovereign issuers. The rationale for issuing sustainability bonds is clearly described by the issuer.*

⁶ A detailed description of the Green and Social eligible activities can be found in the next page of this report.

PART II: ALIGNMENT WITH GREEN BOND PRINCIPLES, SOCIAL BOND PRINCIPLES AND SUSTAINABILITY BOND GUIDELINES

1. Use of Proceeds

FROM ISSUER'S FRAMEWORK

The proceeds under the Sustainability Bond Framework will be used for the preparation, realization and operation of projects belonging to the following Use of Proceeds categories and that satisfy the applicable criteria described in section "II.2. Process for Project Evaluation and Selection".

SOCIAL BOND PRINCIPLES CATEGORIES	GREEN BOND PRINCIPLES CATEGORIES
<p>A. Affordable basic infrastructure e.g. digitalization, public transportation</p> <p>B. Access to essential services e.g. health care and health infrastructure, education at universities, schools and day care centres, research</p> <p>C. Affordable housing e.g. adaptation of urban and rural infrastructure</p> <p>D. Employment generation, and programmes designed to prevent and/or alleviate unemployment stemming from socioeconomic crises, including through the potential effect of SME financing and microfinance e.g. integration of handicapped, migrants or long-term unemployed into the labour market, green economy</p> <p>E. Food security and sustainable food systems e.g. safe and healthy food</p> <p>F. Socioeconomic advancement and empowerment e.g. inclusion of handicapped and migrants, fight against poverty, protection against violence, gender equality</p>	<p>G. Renewable energy e.g. promotion of and consulting regarding renewable energy</p> <p>H. Energy efficiency e.g. promotion of and consulting regarding energy efficiency</p> <p>I. Pollution prevention and control e.g. climate protection, circular economy, green infrastructure</p> <p>J. Environmentally sustainable management of living natural resources and land use e.g. nature protection, biodiversity, responsible agriculture</p> <p>K. Clean transportation e.g. infrastructure for cyclists and pedestrians</p> <p>L. Sustainable water and wastewater management e.g. flood protection</p> <p>M. Climate change adaptation e.g. adaptation to climate change, sustainable infrastructure</p> <p>N. Green buildings e.g. new and refurbished buildings</p>

Opinion: ISS ESG considers the Use of Proceeds description provided by NRW as aligned with the GBPs, SBPs and SBGs. The issuer (re)finances project categories with clear environmental or social objectives.

2. Process for Project Evaluation and Selection

FROM ISSUER'S FRAMEWORK

The State of NRW's treasury team of the Ministry of Finance is responsible for the evaluation and selection of projects and regularly exchanges views with the sustainability team of the Ministry for Environment. The treasury team identifies projects in line with Use of Proceeds criteria and allocates the proceeds to the eligible project portfolio in accordance with the eligibility criteria. The reference for the selection of projects is the State of NRW's Sustainability Strategy 2020. Projects are mapped to specific SDGs and a document with the description of all projects will be published pre-issuance of each Sustainability Bond as well as a Second Party Opinion analyzing the sustainability quality of the projects. Only the State of NRW's own discretionary spending (net of EU grants, federal grants or other revenues earmarked for specific purposes) is taken into account. The State of NRW's personnel costs as well as projects prescribed by federal law are excluded. All projects are part of the State of NRW's discretionary spending of the current fiscal year and can be traced to the NRW Budget Plan of the current year. Only the expenditures of the current year are taken into account. In case a project runs for more than one year, it might be part of a number of subsequent Sustainability Bonds. A list of eligible projects is kept by the treasury team and monitored during the term of the Sustainability Bond to ensure that the proceeds are sufficiently allocated to eligible projects on a regular basis.

Do no harm principle

The State of NRW actively joins the global efforts under the umbrella of the global Agenda 2030 and the 17 SDGs articulated in it. In its sustainability strategy, the State of NRW explains how it will implement this global consensus on sustainable development in NRW.

The core of the new sustainability strategy is a set of 67 specific goals and indicators covering 16 of the 17 SDGs (without SDG 14). These goals and indicators are closely aligned with the goals at the federal level. Ecological, economic and social interaction are equally taken into account. A separate indicator report covers the development of the indicators. A dedicated website⁷ enables ongoing progress reporting on the indicators.

"Sustainability checks" for regional legal acts and programmes strive to focus the political debate on the synergies and conflicts between the different sustainability goals. In the implementation process, cooperation with municipalities, civil society and the private sector will continue to play an important role. The State Government also aims at transforming the State bodies and authorities into a "sustainable administration" (by means of sustainable public procurement, climate neutral buildings, sustainable events etc.) by 2030.

Compliance to social safeguards

The International Labour Organization (ILO) International Labour Standards form an intrinsic part of the EU's legal system. Through compliance with the EU's legal system, the State of NRW's Sustainability Bond is also in compliance with minimum social safeguards. In addition, the State of NRW's investments include provisions on compliance with the laws and regulations (including on social issues) under which its bodies operate.

⁷ NRW's sustainability indicators: www.nachhaltigkeitsindikatoren.nrw.de/en

Controversies

The State of NRW monitors the expenses of the State to ensure that they comply with existing laws and regulations that are in place and that they can achieve the positive environmental and social impacts intended. The State of NRW's parliament carries out the monitoring on a continuous basis, making sure the State's expenses are correctly carried out within the authority provided by the statutory budget. In that context, controversies may come to attention through NGO reports and dialogues, or through media exposure, which will then be subject to further inquiry and debates, if members of parliament demand such scrutiny.

Exclusions

Projects from the following sectors are excluded:

- Fossil fuel production and generation of fossil fuel power,
- Generation of nuclear power,
- Production or trade in any product or activity deemed illegal under international conventions and agreements or subject to international prohibitions.

Opinion: ISS ESG considers the Process for Project Evaluation and Selection description provided by the NRW's Sustainability Bond Framework as aligned with the GBPs, SBPs and SBGs. The issuer describes responsibilities and processes to identify eligible projects based on clear criteria for social safeguards and sectorial exclusion criteria. Furthermore, the issuer describes the process to ensure that the projects financed will not harm other objectives defined as per the UN SDGs and its process related to identification and monitoring of potential ESG controversies.

3. Management of Proceeds

FROM ISSUER'S FRAMEWORK

The proceeds will be allocated and managed by the State of NRW's Treasury team on a portfolio basis. The State of NRW will monitor and track the expenditures for the selected projects as described in the document "Eligible Assets" through its internal accounting system and will seek to allocate an amount at least equal to the net proceeds of the Sustainability Bond. In case net issue proceeds exceed the State's expenditures for eligible projects in the year of issuance, the remaining proceeds will be used to cover expenditures for similar projects of the following years until the expenditures exceed the net issue proceeds.

Opinion: ISS ESG finds that Management of Proceeds proposed by NRW is aligned with the GBP, SBP and SBG, as all the proceeds are appropriately tracked and allocated to eligible projects in a defined period of time. In addition, the framework covers coherent back-up options in case net issue proceeds exceed the State's expenditures for eligible projects in the year of issuance.

4. Reporting

FROM ISSUER'S FRAMEWORK

Reporting will be made available to investors within one year from the date of the Sustainability Bond issuance and annually thereafter until the proceeds have been fully allocated. The annual Sustainability Bond report with updates on the allocation of proceeds and an impact evaluation of the funded projects will be published on the website for NRW's Sustainability Bonds⁸.

Allocation reporting

Allocation reporting will be available to investors within one year from the date of a Sustainability Bond issuance and annually thereafter, until the proceeds have been fully allocated. The State of NRW will report on the percentage of proceeds allocated.

Impact reporting

In order to give a comprehensive view on the impact of the investments, impact reporting varies for each Use of Proceeds category. Per Use of Proceeds category, the State of NRW or a third party charged with it will provide relevant impact indicators on a best-efforts basis. The impact reporting occurs on a project basis where possible.

Opinion: ISS ESG finds that the reporting on the use of proceeds proposed by NRW is aligned with the GBP, SBP and SBG. Further, the issuer is transparent on impact reporting practices, including its level and scope, in line with best market practice.

⁸ NRW Sustainability Bonds: www.nachhaltigkeit.nrw.de/en/sustainability-bonds-nrw

PART III: SUSTAINABILITY QUALITY OF THE ISSUANCE









A. CONTRIBUTION OF THE SUSTAINABILITY BOND TO THE UN SDGs⁹

Based on the assessment of the sustainability quality of the Sustainability Bond Eligible Projects and using a proprietary methodology, ISS ESG assessed the contribution of the NRW's Sustainability Bond to the Sustainable Development Goals defined by the United Nations (UN SDGs). The SDG assessment has been performed on the basis of the eligible assets included in the UoP categories¹⁰.

This assessment is displayed on 5-point scale (see Annex 2 for methodology):

Significant Obstruction	Limited Obstruction	No Net Impact	Limited Contribution	Significant Contribution
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Each of the Sustainability Bond's Use of Proceeds categories has been assessed for its contribution to, or obstruction of, the SDGs:

USE OF PROCEEDS	CONTRIBUTION OR OBSTRUCTION ¹¹	SUSTAINABLE DEVELOPMENT GOALS
SOCIAL CATEGORIES		
A. Affordable basic infrastructure (i) <i>Promoting digitalization at schools and universities</i>	Limited contribution	
A. Affordable basic infrastructure (ii) <i>Public transportation (fare subsidies for low-income citizens and students)</i>	Limited contribution	 
B. Access to essential services (i) <i>e.g. health care and health infrastructure</i>	Significant contribution	
B. Access to essential services (ii) <i>e.g. education at universities, schools and day care centres, research</i>	Significant contribution	
C. Affordable housing <i>e.g. adaptation of urban and rural infrastructure</i>	Limited contribution	  

⁹ It is noted that due to methodological changes concerning the ISS ESG SDG Solutions Assessment (SDGA), there may be deviations from the 2021 SPO for NRW's Sustainability Bond in the mapping of certain SDGs. These changes are not attributed to changes in underlying expenditures or the issuer's overarching ESG performance.

¹⁰ A document listing all eligible assets will be made available at: www.nachhaltigkeit.nrw.de/en/sustainability-bonds-nrw.




¹¹ For some Use of Proceeds categories, this assessment differs from the ISS ESG SDGA proprietary methodology designed to assess the impact of a corporate issuer's product and service portfolio on the SDGs.

<p>D. Employment generation, and programmes designed to prevent and/or alleviate unemployment stemming from socioeconomic crises, including through the potential effect of SME financing and microfinance <i>e.g. integration of handicapped, migrants or long-term unemployed into the labour market, green economy</i></p>	<p>Significant contribution¹²</p>	
<p>E. Food security and sustainable food systems <i>e.g. safe and healthy food</i></p>	<p>Limited Contribution</p>	
<p>F. Socioeconomic advancement and empowerment <i>e.g. inclusion of handicapped and migrants, fight against poverty, protection against violence, gender equality</i></p>	<p>Significant contribution</p>	
<p>GREEN CATEGORIES</p>		
<p>G. Renewable energy <i>e.g. promotion of and consulting regarding renewable energy¹⁴</i></p>	<p>Significant contribution</p>	
<p>H. Energy efficiency <i>e.g. promotion of and consulting regarding energy efficiency</i></p>	<p>Limited contribution</p>	
<p>I. Pollution prevention and control <i>e.g. climate protection, circular economy, green infrastructure</i></p>	<p>Significant contribution</p>	
<p>J. Environmentally sustainable management of living natural resources and land use <i>e.g. nature protection, biodiversity, responsible agriculture</i></p>	<p>Significant contribution</p>	
<p>K. Clean transportation <i>e.g. infrastructure for cyclists and pedestrians</i></p>	<p>Limited contribution</p>	

¹² This project category is assessed as having a significant contribution to SDG 8, beyond the ISS ESG SDG Solutions Assessment (SDGA) proprietary methodology.

¹³ This assessment differs from the ISS ESG SDG Solutions Assessment (SDGA) proprietary methodology designed to assess the impact of an issuer's product and service portfolio on the SDGs.

¹⁴ This refers to various projects, including solar PV and pumped hydro storage.

<p>L. Sustainable water and wastewater management & <i>e.g. flood protection</i></p>	<p>Limited contribution¹⁵</p>	
<p>M. Climate change adaptation <i>e.g. adaptation to climate change, sustainable infrastructure</i></p>	<p>Limited contribution</p>	
<p>N. Green buildings <i>e.g. new and refurbished buildings</i></p>	<p>Limited contribution¹⁵</p>	

¹⁵ This assessment differs from the ISS ESG SDG Solutions Assessment (SDGA) proprietary methodology designed to assess the impact of an issuer’s product and service portfolio on the SDGs.

B. MANAGEMENT OF ENVIRONMENTAL AND SOCIAL RISKS ASSOCIATED WITH THE ELIGIBLE PROJECTS

Green Eligible Projects

The table below presents the findings of an ISS ESG assessment of the Green Eligible Projects against ISS ESG KPIs.

ASSESSMENT AGAINST ISS ESG GREEN KPIs

Environmental and social risks relevant for all green project categories

Biodiversity

For any type of expenditure, comprehensive and specific environmental standards (regarding e.g. direct emissions to air, noise mitigation, minimisation of environmental impact during construction work), apply according to European and national legislation and standards, e.g. the “Bundesimmissionsschutzgesetz and the Gesetz über die Umweltverträglichkeitsprüfung (UVPG)”. (engl: Federal Immission Control Act and the Act on Environmental Impact Assessment). However, no information is available on the number of projects for which Environmental Impact Assessments are conducted.

Waste Management & Pollution Prevention

- ✓ For 100% of assets, the implementing construction companies and subcontractors have to isolate and remove waste and pollutants (in accordance with national legislation).

Water management

- ✓ For any type of expenditure, measures to ensure sufficient water quality, reduce water scarcity, etc. are implemented in accordance with the EU Water Framework Directive.

Sustainable procurement

For energy-related goods, services and road vehicles above a certain size, the EU §§ 67 ff. Public Procurement Regulation (§§ 67 ff. Vergabeverordnung (VgV)) requires that energy efficiency criteria have to be taken into consideration in public procurement contracts. Further, the state government publishes on its website various procurement guidelines, ranging from electric mobility and municipal vehicles to recycled paper and LEDs. The state government also draws on guidance on sustainable procurement for communities, states and municipalities from European Commission. NRW provides information on some sustainable procurement requirements via its homepage to facilitate their usage¹⁶.

Specifically for buildings, the Germany Federal Ministry of Housing, Urban Development and Construction has guidelines for sustainable procurement in construction materials¹⁷. The State of NRW confirms¹⁸ that it applies these guidelines and also that they are applicable to university hospital and clinics, which are the types of buildings to be financed under this program.

Environmental and social risks relevant for some green project categories only

¹⁷ <https://www.nachhaltigesbauen.de/themen/materialgerechtund-aufwandsarm/>

¹⁸ https://recht.nrw.de/lmi/owa/br_vbl_detail_text?anw_nr=7&vd_id=19912&ver=8&val=19912&sg=0&menu=0&vd_back=N

Environmental impact of agriculture – applicable for Environmentally sustainable management of living natural resources and land use only

✓ Sustainability criteria such as soil and biodiversity management, water conservation in agricultural production and the climate impact of agricultural production are taken into consideration, according to European and national legislation and standards, e.g. as described in several documents regarding “Gemeinschaftsaufgabe: Verbesserung der Agrarstruktur und des Küstenschutzes (GAK)”. (engl: Joint task: improvement of agricultural structure and coastal protection)

Exclusion of harmful sectors and activities

According to NRW’s Sustainability Bond Framework projects in relation to fossil fuel production and generation of fossil fuel power, generation of nuclear power, and production or trade in any product or activity deemed illegal under international conventions and agreements or subject to international prohibitions are excluded. Please note that this is not an exhaustive list of potential controversial business activities.

Additionally, within the ISS ESG Country Rating, Germany has no indicated structural controversy¹⁹. Therefore, the risk of a structural controversy within the respective green bond categories is considered low. In the event of a controversy arising, the issuer will ensure that appropriate mitigation processes are in place.

Social Eligible Projects

The table below presents the findings of an ISS ESG assessment of the Social Eligible Projects against ISS ESG KPIs.

ASSESSMENT AGAINST ISS ESG SOCIAL KPIs

Environmental and social risks relevant for all social project categories

Labour and health & safety

✓ For any type of expenditure, health and safety for employees, contractors, operators, etc. are ensured according to European and national legislation and standards.

User safety

✓ For any type of expenditure, the safety of building users is ensured via national legislation and according to the building regulations of the respective federal states.

✓ For any type of expenditure, health and safety for both passengers and operators are ensured according to European and national legislation and standards, e.g. the “Nationale Sicherheitsvorschriften für das Eisenbahnsystem in Deutschland”. (National safety rules for the railway system in Germany)

Non-discriminatory access to education/programmes/offers/services

¹⁹ A structural controversy occurs if an internal ISS ESG threshold is exceeded related to a thematic controversy (e.g. labour right violations), indicating a structural problem. Single cases, unless very severe, do not count as a structural controversy.

- ✓ 100% of projects addressing the enlargement of universities or the creation of additional training facilities are directed at public universities and colleges that currently do not charge any study fees or at professional schools with programmes heavily subsidised for participants.
- ✓ A system of subsidised loans governed by the German Act on Support for Education (Bundesausbildungsförderungsgesetz/BAföG) assists socially disadvantaged students in covering their living expenses.
- ✓ For 100% of projects, high social standards regarding non-discrimination are in place (in accordance with national legislation).

Environmental and social risks relevant for some green project categories only

Dialogue with local communities – for infrastructure-related project categories

- ✓ 100% of projects comply with the regulations of the German Building Code (Baugesetzbuch/BauGB). The regulations provide for the consideration of local residents' interests during the development of land-use plans and zoning maps (e.g. through public display of development plans, possibility to voice concerns, case-dependent compensation measures).

Part IV. ALIGNMENT OF THE GREEN ELIGIBLE PROJECTS WITH THE EU TAXONOMY

ISS ESG assessed the alignment of NRW's project selection process and issuer policies for the nominated Use of Proceeds project categories, with the relevant Climate Change Mitigation/Adaptation, Do Not Significant Harm Criteria (DNSH) and Minimum Social Safeguards requirements of the EU Taxonomy Climate Delegated Act²⁰ (June 2021), based on information provided by NRW. Where NRW's projects and policies fully meet the EU Taxonomy Criteria requirements, a tick is shown in the EU Taxonomy assessment tables in sections A, B and C, according to the ISS ESG assessment.

NRW's project selection criteria overlap with the following economic activities in the EU Taxonomy for Substantial Contribution to Climate Change Mitigation & Climate Change Adaptation:

NRW ELIGIBLE ASSET GROUP	EU TAXONOMY ACTIVITY WITH SUBSTANTIAL CONTRIBUTION TO CLIMATE CHANGE MITIGATION
G. Pumped-storage hydroelectricity plants	4.10. Storage of electricity
H. Energy systems of the future, system transformation, innovation, e-mobility and energy efficiency	4.1. Electricity generation using solar photovoltaic technology 6.4. Operation of personal mobility devices, cycle logistics 6.5. Transport by motorbikes, passenger cars and light commercial vehicles 7.4. Installation, maintenance and repair of charging stations for electric vehicles in buildings (and parking spaces attached to buildings) 7.6. Installation, maintenance and repair of renewable energy technologies 9.1. Close to market research, development and innovation
H. Enhancement of resource efficiency	9.1. Close to market research, development and innovation
I. Energy research offensive and real laboratories	9.1. Close to market research, development and innovation
K. Infrastructure for cyclists and pedestrians	6.4. Operation of personal mobility devices, cycle logistics 6.13 Infrastructure for personal mobility, cycle logistics

²⁰https://ec.europa.eu/info/law/sustainable-finance-taxonomy-regulation-eu-2020-852/amending-and-supplementary-acts/implementing-and-delegated-acts_en

M. Forests restoration	1.2. Rehabilitation and restoration of forests, including reforestation and natural forest regeneration after an extreme event
N. Conservation, remediation and enlargement of university clinics as well as other investments	7.2. Renovation of existing buildings 7.7 Acquisition and ownership of buildings

NRW ELIGIBLE ASSET GROUP	EU TAXONOMY ACTIVITY WITH SUBSTANTIAL CONTRIBUTION TO CLIMATE CHANGE ADAPTATION
L. Flood Protection	5.1 Construction, extension and operation of water collection, treatment and supply systems

In the following sections A, B and C, the EU Taxonomy assessment is displayed in the following order.

For EU Taxonomy activities which have a substantial contribution to Climate Change Mitigation

A.1 1.2. Rehabilitation and restoration of forests, including reforestation and natural forest regeneration after an extreme event

A.2 4.1. Electricity generation using solar photovoltaic technology

A.3 4.10. Storage of electricity

A.4 6.4. Operation of personal mobility devices, cycle logistics

A.5 6.5. Transport by motorbikes, passenger cars and light commercial vehicles

A.6 6.13 Infrastructure for personal mobility, cycle logistics

A.7 7.2. Renovation of existing buildings

A.8 7.4. Installation, maintenance and repair of charging stations for electric vehicles in buildings (and parking spaces attached to buildings)

A.9 7.6. Installation, maintenance and repair of renewable energy technologies

A.10 7.7 Acquisition and ownership of buildings

A.11 9.1. Close to market research, development and innovation

For EU Taxonomy activities which have a substantial contribution to Climate Change Adaptation

B.1 5.1. Construction, extension and operation of water collection, treatment and supply systems

For generic criteria for relevant DNSH criteria which is applicable to multiple EU Taxonomy activities


C.1 Generic Criteria for DNSH to Climate Change Adaptation for all relevant eligible expenditures

C.2 Generic Criteria for DNSH to Sustainable use and protection of water and marine resources for all relevant eligible expenditures

C.3 Generic Criteria for DNSH to Protection and restoration of biodiversity and ecosystems for all relevant eligible expenditures

Note: In order to avoid repetition, the evaluation of the alignment of NRW's assets to the Do No Significant Harm Criteria (DNSH) to Climate Change Adaptation, Sustainable Use and Protection of Water and Marine Resources, and Protection and Restoration of Biodiversity and Ecosystems is provided in section C. They are applicable across several of the above-listed activities, where marked.

A.1 1.2 Rehabilitation and restoration of forests, including reforestation and natural forest regeneration after an extreme event

EU TAXONOMY REQUIREMENT	GREEN PROJECTS OWN PERFORMANCE AND SELECTION PROCESSES ²¹	ALIGNMENT
1. SUBSTANTIAL CONTRIBUTION TO CLIMATE CHANGE MITIGATION – TECHNICAL SCREENING CRITERIA		
<p><i>Due to space reasons, please refer to section 1.2 in the Technical Annex to the Delegated Act for a full overview of the criteria.</i></p>	<p>The North Rhine-Westphalian state government is committed to dealing with the damage to the forest and supports forestry to the best of its ability. With its "Schmallenberg Declaration" and the "Forest Pact for North Rhine-Westphalia" it offered its help and important promotional measures initiated. The "Reforestation Concept for North Rhine-Westphalia" complements this offer to forest owners with technical recommendations for the renewal of their forests. It builds on the "Waldbaukonzept NRW" and offers information in the area of establishing stocks after large-scale damage events. The current data and latest research findings on the effects of climate change are included in the considerations as well.</p> <p>The issuer confirms that all criteria requirements for this activity are complied with. A more detailed elaboration on the respective requirements is provided below:</p> <p>1. Forest management plan Usually there is a forest facility that meets the criteria. If the applicant is a member of a forest management association that receives grants in accordance with the guideline on the granting of grants to promote sustainable forest management in forestry associations, there is a forest facility, as this is a prerequisite for grants here. Criteria relevant information is either recorded in the forest management plan/forest management or are specified in landscape plans, protection area regulations, LNatSchG and EU regulations. Appropriate tests, e.g.</p>	

²¹ This column is based on input provided by the issuer.

	<p>environmental impact assessments, FFH impact assessments must be carried out on a case-by-case basis. Projects in scope / activities will not damage any high-carbon stock areas. The measures are carried out on forest areas that have been disturbed by pest infestation, storms or other natural events. The activity itself no longer causes damage but restores the natural habitat.</p> <p>2. Climate benefit analysis The issuer confirms that such analyses are conducted for the forests to be financed under this Framework.</p> <p>3. According to the BWaldG and LForstG, forests are to be preserved. Conversions require the approval of the forest authority. The aim of the activities is to create climate-stable forests to strengthen the climate protection function.</p> <p>4. Audit: The issuer confirms that audits/assessments for the fulfillment of the purpose of the grant are carried out in the 2nd and 8th year of operation. After that, there are no more checks. General sustainability criteria are roughly verified every 10 years when the forest facility is created.</p> <p>5. No Group audits / assessments are conducted, please refer to point 4 above.</p>	
2. CLIMATE CHANGE ADAPTATION – DO NO SIGNIFICANT HARM CRITERIA		
GENERIC CRITERIA FOR (2)	See C.1	✓
3. WATER AND MARINE RESOURCES – DO NO SIGNIFICANT HARM CRITERIA		
GENERIC CRITERIA FOR (3)	See C.2	✓
4. CIRCULAR ECONOMY – DO NO SIGNIFICANT HARM CRITERIA		
The silvicultural change induced by the activity on the area covered by the activity is not likely to result in a significant reduction of sustainable	In the application process for subsidies by the State of NRW, a forest management plan / information on the forest area needs to be submitted. While there is no country-wide	✓

supply of primary forest biomass suitable for the manufacturing of wood-based products with long-term circularity potential. This criterion may be demonstrated through the climate benefits analysis referred to in point (2).

standard template defined, the state requests relevant information such as the associated sustainable cutting rate and other elements pertinent to avoiding a significant reduction of sustainable supply of primary forest biomass. Moreover, the issuer refers to the German Ordinance on the revision of the biomass-electricity sustainability ordinance and the biofuel sustainability ordinance and on changing the special fee ordinance BMEL - §5 reduction of sustainable supply of primary forest biomass (Verordnung zur Neufassung der Biomassestrom-Nachhaltigkeitsverordnung und der Biokraftstoff-Nachhaltigkeitsverordnung und zu Änderung der besonderen Gebührenverordnung BMEL)

All activities to be financed under this Framework are related only to the recovery or restoration of the previous forestry state, such as the reforestation of damaged forest with climate-resilient tree species. As such, the issuer confirms that the relevant expenditures are not likely to result in a significant reduction of the sustainable supply of primary forest biomass.

5. POLLUTION – DO NO SIGNIFICANT HARM CRITERIA

The use of pesticides is reduced and alternative approaches or techniques, which may include non-chemical alternatives to pesticides, are favoured, in accordance with Directive 2009/128/EC, with exception of occasions where the use of pesticides is needed to control outbreaks of pests and of diseases.

The activity minimises the use of fertilisers and does not use manure.

The activity complies with Regulation (EU) 2019/1009 or national rules on fertilisers or soil improvers for agricultural use.

Well documented and verifiable measures are taken to avoid the use of active ingredients that are listed in the

Directive 2009/128/EC, the “Sustainable Use of Pesticides” Directive and Regulation 2019/1009 « Fertilizer Directive » are applicable in Germany.

Furthermore, the issuer cites the below-listed pieces of legislation and confirms that all activities financed under this Framework comply with their requirements:

- Germany Fertilizer Ordinance, which regulates and limits the use of fertilisers
- EU Regulation 2019/1021 on persistent organic pollutants (June 2019)
- EU Regulation 1907/2006 (Dec 2006) concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH),



Annex I, part A, of Regulation (EU) 2019/1021(38), the Rotterdam Convention on the prior informed consent procedure for certain hazardous chemicals and pesticides in international trade, the Minamata Convention on Mercury, the Montreal Protocol on Substances that Deplete the Ozone Layer, and of active ingredients that are listed as classification Ia ('extremely hazardous') or Ib ('highly hazardous') in the WHO Recommended Classification of Pesticides by Hazard.

The activity complies with the relevant national law on active ingredients.

Pollution of water and soil is prevented and cleaning up measures are undertaken when pollution occurs.

- EU Regulation 1005/2009 (Sept 2009) on substances that deplete the ozone layer
- Federal Soil Protection Act (Bundesbodenschutzgesetz, BBodSchG) - regulatory regime relating to land contaminated by hazardous substances
- Insect Diversity Protection Act (Gesetz zum Schutz der Insektenvielfalt)
- Plant Protection Application Ordinance (Pflanzenschutz-Anwendungsverordnung)

6. BIODIVERSITY AND ECOSYSTEMS – DO NO SIGNIFICANT HARM CRITERIA

In areas designated by the national competent authority for conservation or in habitats that are protected, the activity is in accordance with the conservation objectives for those areas. There is no conversion of habitats specifically sensitive to biodiversity loss or with high conservation value, or of areas set aside for the restoration of such habitats in accordance with national law.

Detailed information referred to in point 1.2.(i) includes provisions for maintaining and possibly enhancing biodiversity in accordance with national and local provisions, including the following: ensuring the good conservation status of habitat and species, maintenance of typical habitat species; excluding the use or release of invasive alien species; excluding the

The issuer confirms to comply with the requirements as presented in the left column and further refers to the Strategic Environmental Assessment Directive (2001/42/EC) and the Environmental Impact Assessment (EIA) as prescribed in relevant German legislation (Gesetz über die Umweltverträglichkeitsprüfung (UVPG)). Please also see C.3 for further reference.

These determine whether the effects of a project on the environment are identified, described and assessed comprehensively at an early stage and that the results of the environmental assessments carried out as early as possible to allow for the planning approval to be granted.

Moreover, elements such as protected areas and world heritage sites are part of the conducted assessment and also included in the dedicated checklist for the determination of the EIA obligations.



<p>use of non-native species unless it can be demonstrated that:</p> <p>(i) the use of the forest reproductive material leads to favourable and appropriate ecosystem conditions (such as climate, soil criteria and vegetation zone, forest fire resilience);</p> <p>(ii) the native species currently present on the site are not anymore adapted to projected climatic and pedo-hydrological conditions ensuring the maintenance and improvement of physical, chemical and biological quality of the soil; promoting biodiversity-friendly practices that enhance forests' natural processes; excluding the conversion of high-biodiverse ecosystems into less biodiverse ones; ensuring the diversity of associated habitats and species linked to the forest; ensuring the diversity of stand structures and maintenance or enhancing of mature stage stands and dead wood.</p>	<p>Finally, the issuer cites the following national and state-level legislation that is in place to address appropriate ecosystem conditions and biodiversity-friendly practices:</p> <ul style="list-style-type: none"> • Law on Nature Conservation and Landscape Care (Gesetz über Naturschutz und Landschaftspflege) (BNatSchG) • Convention on Biological Diversity (Übereinkommen über die biologische Vielfalt) (CBD) • Fauna-Flora-Habitat Directive (Fauna-Flora-Habitat-Richtlinie) • NRW State Forestry Act • NRW State Nature Conservation Act <p>Excerpt: Legal biotope protection under Section 30 of the Federal Nature Conservation Act and Section 42 of the NRW State Nature Conservation Act - primarily affects forests on special sites, e.g. broken, swamp, floodplain and bog forests or open land biotopes closely interlocked with the forest, such as e.g. moors, near-natural bodies of water, springs or heath biotopes.</p> <p>Species protection also apply to forestry measures, e.g. protection of species, critical periods such as incubation and settling times and strictly protected species etc.</p>	
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A.2 4.1. Electricity generation using solar photovoltaic technology

EU TAXONOMY REQUIREMENT	GREEN PROJECTS OWN PERFORMANCE AND SELECTION PROCESSES ²²	ALIGNMENT
1. SUBSTANTIAL CONTRIBUTION TO CLIMATE CHANGE MITIGATION – TECHNICAL SCREENING CRITERIA		
The activity generates electricity using solar PV technology.	The issuer confirms that the activity generates electricity using solar PV. The relevant expenditure is linked to the project “Klimaschutztechnik” (“climate change technology”), which includes the promotion of solar PV.	✓

²² This column is based on input provided by the issuer.

	As part of the energy supply strategy, the NRW state government has set itself the goal of doubling the installed capacity for wind energy and photovoltaics by 2030 compared to 2018 when expanding renewable energies. The expansion of PV is to take place alongside the dismantling of regulatory obstacles by intensifying financial support and thereby encompassing both roof and open-space PV. Furthermore, this program is intended to grant investment and planning cost subsidies for the PV components that are not covered by the Renewable Energy Sources Act.	
2. CLIMATE CHANGE ADAPTATION – DO NO SIGNIFICANT HARM CRITERIA		
GENERIC CRITERIA FOR (2)	See C.1	✓
3. WATER AND MARINE RESOURCES – DO NO SIGNIFICANT HARM CRITERIA		
N/A	N/A	N/A
4. CIRCULAR ECONOMY – DO NO SIGNIFICANT HARM CRITERIA		
The activity assesses availability of and, where feasible, uses equipment and components of high durability and recyclability and that are easy to dismantle and refurbish.	<p>The issuer confirms to comply with EU Waste Electrical & Electronic Equipment Directive 2012/19/EU. The WEEE Directive mandates European countries to adopt PV waste management programs in which producers are responsible for the take back and recycling of the panels they sell.</p> <p>Additionally, the issuer notes that in 2013, the German Federal Government adopted the Waste Avoidance Programme. This programme sets qualitative targets. The programme defines various sub-targets, such as reducing the harmful effects of waste, increasing the life-cycle of products and promoting low-waste product design.</p>	✓
5. POLLUTION – DO NO SIGNIFICANT HARM CRITERIA		
N/A	N/A	N/A
6. BIODIVERSITY AND ECOSYSTEMS – DO NO SIGNIFICANT HARM CRITERIA		
GENERIC CRITERIA FOR (6)	See C.3	✓

A.3 4.10. Storage of electricity

EU TAXONOMY REQUIREMENT	GREEN PROJECTS OWN PERFORMANCE AND SELECTION PROCESSES ²³	ALIGNMENT
1. SUBSTANTIAL CONTRIBUTION TO CLIMATE CHANGE MITIGATION – TECHNICAL SCREENING CRITERIA		
The activity is the construction and operation of electricity storage including pumped hydropower storage.	The issuer confirms that the relevant activity, a support program of pumped hydropower storage, aligns with the criteria presented on the left.	✓
2. CLIMATE CHANGE ADAPTATION – DO NO SIGNIFICANT HARM CRITERIA		
GENERIC CRITERIA FOR (2)	See C.1	✓
3. WATER AND MARINE RESOURCES – DO NO SIGNIFICANT HARM CRITERIA		
In case of pumped hydropower storage not connected to a river body, the activity complies with the criteria set out in Appendix B to this Annex.	The issuer confirms that the activity is not connected to a river body ²⁴ . Please refer to section C.2 for a comprehensive assessment of Appendix B.	✓
4. CIRCULAR ECONOMY – DO NO SIGNIFICANT HARM CRITERIA		
A waste management plan is in place and ensures maximal reuse or recycling at end of life in accordance with the waste hierarchy, including through contractual agreements with waste management partners, reflection in financial projections or official project documentation.	The issuer refers to the EU Waste Framework Directive (2008/98/EC), which stipulates that by 2020 at least 70% by weight of the non-hazardous construction and demolition waste is prepared for reuse, recycling or other material recovery. The Directive is implemented in Germany, through the KrWG Kreislaufwirtschaftsgesetz (Closed Substance Cycle Waste Management Act) In 2020, the recovery rate of C&D waste stood at 93% in Germany ²⁵ . Additionally, the issuer notes that in 2013, the German Federal Government adopted the Waste Avoidance Programme. This programme sets qualitative targets. The programme defines various sub-targets, such as reducing the harmful effects of waste, increasing the life-cycle of products and promoting low-waste product design.	✓
5. POLLUTION – DO NO SIGNIFICANT HARM CRITERIA		
N/A	N/A	N/A
6. BIODIVERSITY AND ECOSYSTEMS – DO NO SIGNIFICANT HARM CRITERIA		

²³ This column is based on input provided by the issuer.

²⁴ Further information can be found here: https://www.lanuv.nrw.de/fileadmin/lanuvpubl/3_fachberichte/30062_fabe_62_web.pdf

²⁵ https://ec.europa.eu/eurostat/databrowser/view/cei_wm040/default/table?lang=en

GENERIC CRITERIA FOR (6)	See C.3	✓
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A.4 6.4. Operation of personal mobility devices, cycle logistics

EU TAXONOMY REQUIREMENT	GREEN PROJECTS OWN PERFORMANCE AND SELECTION PROCESSES ²⁶	ALIGNMENT
1. SUBSTANTIAL CONTRIBUTION TO CLIMATE CHANGE MITIGATION – TECHNICAL SCREENING CRITERIA		
<p>1. The propulsion of personal mobility devices comes from the physical activity of the user, from a zero-emissions motor, or a mix of zero-emissions motor and physical activity.</p> <p>2. The personal mobility devices are allowed to be operated on the same public infrastructure as bikes or pedestrians.</p>	<p>The issuer confirms that the relevant project, the promotional program “Energiesysteme der Zukunft, Systemtransformation, Innovation, Elektromobilität und Energieeffizienz” (Energy systems of the future, system transformation, innovation, emobility and energy efficiency) aligns with the activity descriptions as presented on the left.</p> <p>Specifically, the program provides subsidies to communes and businesses for i. the purchase of cargo bikes and costs to related consulting services, which are directly linked to (i). Further, the program provides subsidies to private individuals for i. the purchase of private wall boxes / chargers and ii. smart charging infrastructure.</p>	✓
2. CLIMATE CHANGE ADAPTATION – DO NO SIGNIFICANT HARM CRITERIA		
GENERIC CRITERIA FOR (2)	See C.1	✓
3. WATER AND MARINE RESOURCES – DO NO SIGNIFICANT HARM CRITERIA		
N/A	N/A	N/A
4. CIRCULAR ECONOMY – DO NO SIGNIFICANT HARM CRITERIA		
Measures are in place to manage waste, in accordance with the waste hierarchy, both in the use phase (maintenance) and the end-of-life, including through reuse and recycling of batteries and electronics (in particular critical raw materials therein).	<p>The issuer confirms to comply with EU Waste Electrical & Electronic Equipment (WEEE Directive 2012/19/EU), which covers relevant electronics components in the mobility devices. There is also the EU Battery Directive (2006/66/EC) which covers responsible disposal and recycling of batteries. Any other waste, eg bicycle components, is covered under the EU Waste Framework Directive (2008/98/EC).</p> <p>Additionally, the issuer notes that in 2013, the German Federal Government adopted the Waste Avoidance Programme. This programme sets</p>	✓

²⁶ This column is based on input provided by the issuer.

	qualitative targets. The programme defines various sub-targets, such as reducing the harmful effects of waste, increasing the life-cycle of products and promoting low-waste product design.	
5. POLLUTION – DO NO SIGNIFICANT HARM CRITERIA		
N/A	N/A	N/A
6. BIODIVERSITY AND ECOSYSTEMS – DO NO SIGNIFICANT HARM CRITERIA		
N/A	N/A	N/A

A.5 6.5. Transport by motorbikes, passenger cars and light commercial vehicles

EU TAXONOMY REQUIREMENT	GREEN PROJECTS OWN PERFORMANCE AND SELECTION PROCESSES ²⁷	ALIGNMENT
1. SUBSTANTIAL CONTRIBUTION TO CLIMATE CHANGE MITIGATION – TECHNICAL SCREENING CRITERIA		
The activity complies with the following criteria: for vehicles of category M1 and N1, both falling under the scope of Regulation (EC) No 715/2007: (i)until 31 December 2025, specific emissions of CO ₂ , as defined in Article 3(1), point (h), of Regulation (EU) 2019/631, are lower than 50gCO ₂ /km (low- and zero-emission light-duty vehicles); (ii)from 1 January 2026, specific emissions of CO ₂ , as defined in Article 3(1), point (h), of Regulation (EU) 2019/631, are zero. For vehicles of category L, the tailpipe CO ₂ emissions equal to 0g CO ₂ e/km calculated in accordance with the emission test laid down in Regulation (EU) 168/2013.	<p>The issuer considers as eligible expenditure related to the activity the promotional program "Energiesysteme der Zukunft, Systemtransformation, Innovation, Elektromobilität und Energieeffizienz" (Energy systems of the future, system transformation, innovation, emobility and energy efficiency) ".</p> <p>The program provides subsidies to communes and businesses for i. the purchase electric vehicles, ii. construction of charging infrastructure and iii. costs to related consulting services. Moreover, the program provides subsidies to private individuals for i. the purchase of private wall boxes / chargers and ii. smart charging infrastructure.</p> <p>The issuer confirms only zero emissions vehicles would be eligible for financing under this Framework.</p>	✓
2. CLIMATE CHANGE ADAPTATION – DO NO SIGNIFICANT HARM CRITERIA		
GENERIC CRITERIA FOR (2)	See C.1	✓
3. WATER AND MARINE RESOURCES – DO NO SIGNIFICANT HARM CRITERIA		
N/A	N/A	N/A

²⁷ This column is based on input provided by the issuer.

4. CIRCULAR ECONOMY – DO NO SIGNIFICANT HARM CRITERIA

Vehicles of categories M1 and N1 are both of the following: reusable or recyclable to a minimum of 85% by weight; reusable or recoverable to a minimum of 95% by weight. Measures are in place to manage waste both in the use phase (maintenance) and the end-of-life of the fleet, including through reuse and recycling of batteries and electronics (in particular critical raw materials therein), in accordance with the waste hierarchy.

The issuer refers to the German End-of-life Vehicle Act (AltfahrzeugG) of 21 June 2002 (Federal Law Gazette I, p. 2199), which for the most part entered into force on 1 July 2002, and transposes Directive 2000/53/EC on end-of-life vehicles (ELV Directive) into German law, which mandates these thresholds and measures.

The issuer confirms that any vehicles and related expenditures financed by the Framework will be compliant with the EU End of Life Vehicles Directive



5. POLLUTION – DO NO SIGNIFICANT HARM CRITERIA

Vehicles comply with the requirements of the most recent applicable stage of the Euro 6 light-duty emission type-approval set out in accordance with Regulation (EC) No. 715/2007.

Vehicles comply with the emission thresholds for clean light-duty vehicles set out in Table 2 of the Annex to Directive 2009/33/EC of the European Parliament and of the Council.

For road vehicles of categories M and N, tyres comply with external rolling noise requirements in the highest populated class and with Rolling Resistance Coefficient (influencing the vehicle energy efficiency) in the two highest populated classes as set out in Regulation (EU) 2020/740 and as can be verified from the

The emissions requirements as presented in the left column are not applicable as the relevant expenditure and underlying program only allows for electric vehicles.

Regarding tyres, the issuer explains that the program will finance only new electric vehicles, which due to their physical nature and emphasis on environmental characteristics, will most likely select the tyres which are best performing in both external rolling noise and rolling resistance. Further, the use of tyres in the lower classes (below A or B) is becoming less common in the market.

Regarding Regulation (EU) No 540/2014 on the sound level of motor vehicles, this came into effect in 2016 and as this program will only finance new vehicles, they will be compliant with this Regulation.



European Product Registry for Energy Labelling (EPREL).		
Vehicles comply with Regulation (EU) No 540/2014 of the European Parliament and of the Council.		
6. BIODIVERSITY AND ECOSYSTEMS – DO NO SIGNIFICANT HARM CRITERIA		
N/A	N/A	N/A

A.6 6.13 Infrastructure for personal mobility, cycle logistics




EU TAXONOMY REQUIREMENT	GREEN PROJECTS OWN PERFORMANCE AND SELECTION PROCESSES ²⁸	ALIGNMENT
1. SUBSTANTIAL CONTRIBUTION TO CLIMATE CHANGE MITIGATION – TECHNICAL SCREENING CRITERIA		
The infrastructure that is constructed and operated is dedicated to personal mobility or cycle logistics: pavements, bike lanes and pedestrian zones, electrical charging and hydrogen refuelling installations for personal mobility devices.	<p>The relevant eligible expenditures relate to investments into infrastructure for cyclists and pedestrians.</p> <p>NRW provides financial support for projects which improve conditions for cyclists and pedestrians, particularly on short-haul routes. The stated aim is to increase the use of non-motorized transportation especially for short distances. Major projects relate to the construction of a bicycle road infrastructure and bicycle parking facilities as well as construction of bicycle paths on abandoned railway lines.</p>	✓
2. CLIMATE CHANGE ADAPTATION – DO NO SIGNIFICANT HARM CRITERIA		
GENERIC CRITERIA FOR (2)	See C.1	✓
3. WATER AND MARINE RESOURCES – DO NO SIGNIFICANT HARM CRITERIA		
GENERIC CRITERIA FOR (3)	See C.2.	✓
4. CIRCULAR ECONOMY – DO NO SIGNIFICANT HARM CRITERIA		
At least 70 % (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste	The issuer refers to the EU Waste Framework Directive (2008/98/EC of 19 November 2008), which stipulates that by 2020 at least 70% by weight of the non-hazardous construction and demolition waste is prepared for reuse, recycling or other material recovery. The Directive is implemented in Germany, through the KrWG Kreislaufwirtschaftsgesetz (Closed	✓

²⁸ This column is based on input provided by the issuer.

<p>established by Commission Decision 2000/532/EC generated on the construction site is prepared for reuse, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol. Operators limit waste generation in processes related to construction and demolition, in accordance with the EU Construction and Demolition Waste Management Protocol, taking into account best available techniques and using selective demolition to enable removal and safe handling of hazardous substances and facilitate reuse and high-quality recycling by selective removal of materials, using available sorting systems for construction and demolition waste.</p>	<p>Substance Cycle Waste Management Act). In 2020, the recovery rate of C&D waste stood at 93% in Germany²⁹.</p> <p>Additionally, the issuer notes that in 2013, the German Federal Government adopted the Waste Avoidance Programme. This programme sets qualitative targets. The programme defines various sub-targets, such as reducing the harmful effects of waste, increasing the life-cycle of products and promoting low-waste product design.</p>	
<p>5. POLLUTION – DO NO SIGNIFICANT HARM CRITERIA</p>		
<p>Measures are taken to reduce noise, dust and pollutant emissions during construction or maintenance works.</p>	<p>With respect to adequate measures, the issuer cites the Environmental Impact Assessment (EIA) Act (Gesetz über die Umweltverträglichkeitsprüfung (UVPG)), whose purpose is to ensure that the effects of a project on the environment are on the environment are identified, described and assessed comprehensively at an early stage and that the results of the environmental assessments carried out are taken into account as early as possible in all official decisions on the decisions on the permissibility of projects as early as possible.</p>	<p>✓</p>
<p>6. BIODIVERSITY AND ECOSYSTEMS – DO NO SIGNIFICANT HARM CRITERIA</p>		
<p>GENERIC CRITERIA FOR (6)</p>	<p>See C.3</p>	<p>✓</p>

²⁹ https://ec.europa.eu/eurostat/databrowser/view/cei_wm040/default/table?lang=en

A.7 7.2. Renovation of existing buildings

EU TAXONOMY REQUIREMENT	GREEN PROJECTS OWN PERFORMANCE AND SELECTION PROCESSES ³⁰	ALIGNMENT
1. SUBSTANTIAL CONTRIBUTION TO CLIMATE CHANGE MITIGATION – TECHNICAL SCREENING CRITERIA		
<p>The building renovation complies with the applicable requirements for major renovations. Alternatively, it leads to a reduction of primary energy demand (PED) of at least 30 %.</p>	<p>Relevant projects include refurbishments/modernization efforts for large university hospitals, which the state government aims to modernize in order to provide state-of-the-art possibilities for medical treatment and research. The funds target measures to save energy and reduce emissions of existing buildings. Projects also include asbestos, CFC and PCB disposal. The use of proceeds include grants and investments for reconstruction and major extensions of existing buildings .</p> <p>The issuer confirms that all relevant projects comply with the applicable requirements for major renovations.</p>	
2. CLIMATE CHANGE ADAPTATION – DO NO SIGNIFICANT HARM CRITERIA		
<p>GENERIC CRITERIA FOR (2)</p>	<p>See C.1.</p> <p>In addition, with respect to this particular category, the issuer notes that NRW also takes guidance from the National Adaptation Plan developed by Germany / the German Strategy for Adaptation to Climate Change from 2008 which specifies that the Federal Building Code and building regulations take into account necessary climate adaptation provisions.</p>	
3. WATER AND MARINE RESOURCES – DO NO SIGNIFICANT HARM CRITERIA		
<p>Where installed as part of the renovation works, except for renovation works in residential building units, the specified water use for the following water appliances is attested by product datasheets, a building certification or an existing product label in the Union, in accordance with the technical specifications laid down in</p>	<p>Regarding public procurement, the European Commission has published³¹ an interpretative communication on the possibilities for taking environmental considerations into account. This is supplemented by a legal opinion of the Germany Federal Environment Agency on the consideration of environmental aspects in public procurement. Furthermore, the state of NRW has established transparent sustainable procurement policies for publicly financed projects, which apply to the</p>	

³⁰ This column is based on input provided by the issuer.

³¹ https://ec.europa.eu/environment/gpp/commission_guidance_en.htm

Appendix E to the Annex: wash hand basin taps and kitchen taps have a maximum water flow of 6 litres/min; showers have a maximum water flow of 8 litres/min; WCs, including suites, bowls and flushing cisterns, have a full flush volume of a maximum of 6 litres and a maximum average flush volume of 3,5 litres; urinals use a maximum of 2 litres/bowl/hour. Flushing urinals have a maximum full flush volume of 1 litre.

expenditures financed under this Framework. These policies include recommendations that products with the “Blauer Engel” eco-label, which is known as a label for environmentally friendly products, and is similar to the EU Ecolabel, are used in publicly financed projects. The Blauer Engel label for the relevant water products uses the same thresholds^{32,33} as the EU Ecolabel³⁴, from which the criteria requirements derive. The issuer has also confirmed³⁵ that these policies apply to the university hospitals that are part of this category. Therefore, as the state of NRW is encouraging the highest levels of sustainability standards in its procurement, the issuer explains that university hospitals financed under the Framework are likely to use water appliances which have those water flow characteristics. However, as the state of NRW has not set the use of the “Blauer Engel” as a legal requirement, it is not possible to assess conclusively that the buildings use the water appliances as stipulated by the Taxonomy criteria thresholds.

4. CIRCULAR ECONOMY – DO NO SIGNIFICANT HARM CRITERIA

At least 70 % (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site is prepared for reuse, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste

The issuer refers to the EU Waste Framework Directive (2008/98/EC of 19 November 2008), which stipulates that by 2020 at least 70% by weight of the non-hazardous construction and demolition waste is prepared for reuse, recycling or other material recovery. The Directive is implemented in Germany, through the KrWG Kreislaufwirtschaftsgesetz (Closed Substance Cycle Waste Management Act). In 2020, the recovery rate of C&D waste stood at 93% in Germany³⁶.

Additionally, the issuer notes that in 2013, the German Federal Government adopted the Waste Avoidance Programme. This programme sets qualitative targets. The programme defines various sub-targets, such as reducing the harmful effects of



³² <https://produktinfo.blauer-engel.de/uploads/criteriafile/de/DE-UZ%20180-201302-de%20Kriterien-V2.pdf>

³³ <https://produktinfo.blauer-engel.de/uploads/criteriafile/de/DE-UZ%20157-202201-de-Kriterien-V1.pdf>

³⁴ <https://ec.europa.eu/environment/ecolabel/documents/Sanitary%20Tapware%20Factsheet.pdf>

³⁵ https://recht.nrw.de/lmi/owa/br_vbl_detail_text?anw_nr=7&vd_id=19912&ver=8&val=19912&sg=0&menu=0&vd_back=N

³⁶ https://ec.europa.eu/eurostat/databrowser/view/cei_wm040/default/table?lang=en

hierarchy and the EU Construction and Demolition Waste Management Protocol. Operators limit waste generation in processes related construction and demolition, in accordance with the EU Construction and Demolition Waste Management Protocol and taking into account best available techniques and using selective demolition to enable removal and safe handling of hazardous substances and facilitate reuse and high-quality recycling by selective removal of materials, using available sorting systems for construction and demolition waste. Building designs and construction techniques support circularity and in particular demonstrate, with reference to ISO 20887 or other standards for assessing the disassembly or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantlable to enable reuse and recycling.

waste, increasing the life-cycle of products and promoting low-waste product design.

5. POLLUTION – DO NO SIGNIFICANT HARM CRITERIA

Building components and materials used in the construction complies with the criteria set out in Appendix C to the Annex (of the Delegated Act).

Building components and materials used in the building renovation that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component upon

According to the issuer, any buildings eligible to be financed under this Framework have to meet standard legislative requirements at European and national levels. With respect to Appendix C of the Technical Annex, this includes:

- EU Regulation 2019/1021 on persistent organic pollutants (June 2019)
- EU Regulation 2017/852 on mercury, and repealing Regulation (EC) No 1102/2008



<p>testing in accordance with the conditions specified in Annex XVII to Regulation (EC) No 1907/2006 and less than 0,001 mg of other categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/EN 16516 or ISO 16000-3:2011 or other equivalent standardised test conditions and determination methods.</p> <p>Measures are taken to reduce noise, dust and pollutant emissions during construction or maintenance works.</p>	<ul style="list-style-type: none"> • EU Regulation 1005/2009 (Sept 2009) on substances that deplete the ozone layer • EU Directive 2017/2102 (Nov 2017) amending Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment • EU Regulation 1907/2006 (Dec 2006) concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), <p>With respect of the additional requirements, the issuer also makes reference to the following legislation that the state confirms to apply to:</p> <ul style="list-style-type: none"> • Ordinance on Hazardous Substances (Gefahrstoffverordnung, GefStoffV) • Occupational exposure limit values (Arbeitsplatzgrenzwerte – AGW) <p>Regulation 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC</p> <ul style="list-style-type: none"> • CEN/TS 16516:2013 Construction products - Assessment of release of dangerous substances - Determination of emissions into indoor air • Federal Soil Protection Act (Bundesbodenschutzgesetz, BBodSchG) - regulatory regime relating to land contaminated by hazardous substances 	
<p>6. BIODIVERSITY AND ECOSYSTEMS – DO NO SIGNIFICANT HARM CRITERIA</p>		
<p>N/A</p>	<p>N/A</p>	<p>N/A</p>

A.8 7.4. Installation, maintenance and repair of charging stations for electric vehicles in buildings (and parking spaces attached to buildings)

EU TAXONOMY REQUIREMENT	GREEN PROJECTS OWN PERFORMANCE AND SELECTION PROCESSES ³⁷	ALIGNMENT
<p>1. SUBSTANTIAL CONTRIBUTION TO CLIMATE CHANGE MITIGATION – TECHNICAL SCREENING CRITERIA</p>		

³⁷ This column is based on input provided by the issuer.

Installation, maintenance or repair of charging stations for electric vehicles.	<p>NRW confirms that projects align with the criteria requirements. The relevant project description is as follows:</p> <p>Promotional program "Energiesysteme der Zukunft, Systemtransformation, Innovation, Elektromobilität und Energieeffizienz" (Energy systems of the future, system transformation, innovation, emobility and energy efficiency)</p> <p>The program provides among other things subsidies to communes and businesses for i. construction of charging infrastructure and ii. costs to related consulting services. Additionally, the program provides subsidies to private individuals for i. the purchase of private wall boxes / chargers and ii. smart charging infrastructure.</p>	✓
2. CLIMATE CHANGE ADAPTATION – DO NO SIGNIFICANT HARM CRITERIA		
GENERIC CRITERIA FOR (2)	See C.1	✓
3. WATER AND MARINE RESOURCES – DO NO SIGNIFICANT HARM CRITERIA		
N/A	N/A	N/A
4. CIRCULAR ECONOMY – DO NO SIGNIFICANT HARM CRITERIA		
N/A	N/A	N/A
5. POLLUTION – DO NO SIGNIFICANT HARM CRITERIA		
N/A	N/A	N/A
6. BIODIVERSITY AND ECOSYSTEMS – DO NO SIGNIFICANT HARM CRITERIA		
N/A	N/A	N/A

A.9 7.6 Installation, maintenance and repair of renewable energy technologies


EU TAXONOMY REQUIREMENT	GREEN PROJECTS OWN PERFORMANCE AND SELECTION PROCESSES ³⁸	ALIGNMENT
1. SUBSTANTIAL CONTRIBUTION TO CLIMATE CHANGE MITIGATION – TECHNICAL SCREENING CRITERIA		
The activity consists in one of the following individual measures, if installed on-site as technical building systems:	NRW confirms that projects align with the criteria requirements. The relevant projects financed by the eligible expenditure is "Energiesysteme der Zukunft, Systemtransformation, Innovation, Elektromobilität	✓

³⁸ This column is based on input provided by the issuer.

<p>a) installation, maintenance and repair of solar photovoltaic systems and the ancillary technical equipment;</p> <p>b) installation, maintenance and repair of solar hot water panels and the ancillary technical equipment;</p> <p>c) installation, maintenance, repair and upgrade of heat pumps contributing to the targets for renewable energy in heat and cool in accordance with Directive (EU) 2018/2001 and the ancillary technical equipment;</p> <p>d) installation, maintenance and repair of wind turbines and the ancillary technical equipment;</p> <p>e) installation, maintenance and repair of solar transpired collectors and the ancillary technical equipment;</p> <p>f) installation, maintenance and repair of thermal or electric energy storage units and the ancillary technical equipment;</p> <p>g) installation, maintenance and repair of high efficiency micro CHP (combined heat and power) plant;</p> <p>h) installation, maintenance and repair of heat exchanger/recovery systems.</p>	<p>und Energieeffizienz" (Energy systems of the future, system transformation, innovation, emobility and energy efficiency), which among others promotes organizations and individuals to install the technologies listed in the left column.</p> <p>As part of NRW's energy supply strategy, the state government has set itself the goal of doubling the installed capacity for wind energy and photovoltaics by 2030 compared to 2018 when expanding renewable energies.</p> <p>The issuer states that the purpose of this programme area is to introduce and disseminate applicable technologies for the use of renewable energies and for the economical and efficient use of energy in order to make a significant contribution to the climate protection goals of the state.</p>	
<p>2. CLIMATE CHANGE ADAPTATION – DO NO SIGNIFICANT HARM CRITERIA</p>		
<p>GENERIC CRITERIA FOR (2)</p>	<p>See C.1.</p> <p>In addition, with respect to this particular category, the issuer notes that NRW also takes guidance from the National Adaptation Plan developed by Germany</p>	

	/ the German Strategy for Adaptation to Climate Change from 2008 which specifies that the Federal Building Code and building regulations take into account necessary climate adaptation provisions.	
3. WATER AND MARINE RESOURCES – DO NO SIGNIFICANT HARM CRITERIA		
N/A	N/A	N/A
4. CIRCULAR ECONOMY – DO NO SIGNIFICANT HARM CRITERIA		
N/A	N/A	N/A
5. POLLUTION – DO NO SIGNIFICANT HARM CRITERIA		
N/A	N/A	N/A
6. BIODIVERSITY AND ECOSYSTEMS – DO NO SIGNIFICANT HARM CRITERIA		
N/A	N/A	N/A

A.10 7.7 Acquisition and ownership of buildings


EU TAXONOMY REQUIREMENT	GREEN PROJECTS OWN PERFORMANCE AND SELECTION PROCESSES³⁹	ALIGNMENT
1. SUBSTANTIAL CONTRIBUTION TO CLIMATE CHANGE MITIGATION – TECHNICAL SCREENING CRITERIA		
<p>The building(s) has/have to fulfill the following criteria:</p> <p>1. For buildings built before 31 December 2020, the building has at least an Energy Performance Certificate (EPC) class A. As an alternative, the building is within the top 15% of the national or regional building stock expressed as operational Primary Energy Demand (PED) and demonstrated by adequate evidence, which at least compares the performance of the relevant asset to the performance of the national or regional stock built before 31 December 2020 and at least distinguishes between</p>	<p>The issuer states that relevant buildings, which are extensions and new buildings for large university hospitals, are within the top 15% of operational PED of the Germany building stock at time of application for construction. This is on the basis that the buildings began development between October 2009 and December 2020, so they are compliant with the EnEV 2009⁴⁰ (energy savings regulation), which is commonly accepted as the top 15% in the Germany market. The issuer confirms the regulation is applicable to university hospitals. As the construction of these types of buildings require many years , the requirements are considered to be met. The issuer confirms that relevant buildings are efficiently operated through energy performance monitoring and assessment.</p>	

³⁹ This column is based on input provided by the issuer.

⁴⁰ https://enev-online.de/enev/enev_2009.htm [EnEV 2009 - Energieeinsparverordnung \(EnEV 2009\) - Volltext, Html-Format, verlinkt, \(enev-online.org\)](#)

<p>residential and non-residential buildings.</p> <p>2. For buildings built after 31 December 2020, the building meets the criteria specified in Section 7.1 of this Annex that are relevant at the time of the acquisition.</p> <p>3. Where the building is a large non-residential building (with an effective rated output for heating systems, systems for combined space heating and ventilation, air-conditioning systems or systems for combined air-conditioning and ventilation of over 290 kW) it is efficiently operated through energy performance monitoring and assessment.</p>		
<p>2. CLIMATE CHANGE ADAPTATION – DO NO SIGNIFICANT HARM CRITERIA</p>		
<p>GENERIC CRITERIA FOR (2)</p>	<p>See C.1.</p> <p>In addition, with respect to this particular category, the issuer notes that NRW also takes guidance from the National Adaptation Plan developed by Germany / the German Strategy for Adaptation to Climate Change from 2008 which specifies that the Federal Building Code and building regulations take into account necessary climate adaptation provisions.</p>	<p>✓</p>
<p>3. WATER AND MARINE RESOURCES – DO NO SIGNIFICANT HARM CRITERIA</p>		
<p>N/A</p>	<p>N/A</p>	<p>N/A</p>
<p>4. CIRCULAR ECONOMY – DO NO SIGNIFICANT HARM CRITERIA</p>		
<p>N/A</p>	<p>N/A</p>	<p>N/A</p>
<p>5. POLLUTION – DO NO SIGNIFICANT HARM CRITERIA</p>		
<p>N/A</p>	<p>N/A</p>	<p>N/A</p>
<p>6. BIODIVERSITY AND ECOSYSTEMS – DO NO SIGNIFICANT HARM CRITERIA</p>		
<p>N/A</p>	<p>N/A</p>	<p>N/A</p>

A.11 9.1. Close to market research, development and innovation

EU TAXONOMY REQUIREMENT	GREEN PROJECTS OWN PERFORMANCE AND SELECTION PROCESSES ⁴¹	ALIGNMENT
1. SUBSTANTIAL CONTRIBUTION TO CLIMATE CHANGE MITIGATION – TECHNICAL SCREENING CRITERIA		
<p><i>Due to space reasons, please refer to section 9.1 in the Technical Annex to the Delegated Act for a full overview of the criteria.</i></p>	<p>NRW confirms that eligible projects align with the relevant requirements, as the funding allocation and grant processes for the underlying programs prioritize programs which are close to market. In particular, the issuer intends to include expenditures towards the three programs “Energieforschungsoffensive” (Energy research offensive), “Reallabore” (“Real laboratories”), which are financed by the State of NRW’s Ministry for Economic Affairs, Innovation, Digitalization and Energy and “Ressourceneffizientes Wirtschaften” (Resource-efficient management), which is financed by the State of NRW’s Ministry for Environment. All three of the programs have processes in place to direct funding towards applied research and efforts which will lead to close to market products and innovations.</p> <p><u>Energy Research Offensive</u> ⁴²</p> <p>The program places a focus on strengthening energy research in North Rhine-Westphalia. The goal is to use energy research to develop North Rhine-Westphalia into a modern and climate-friendly business location that promotes climate protection and prosperity in equal measure. Grants are awarded to private enterprises and other institutions outside the state administration for the implementation of new product, service and process ideas, the innovative renewal of existing products and processes, and for knowledge transfer.</p> <p><u>Real Laboratories</u></p> <p>These labs aim at the demonstration of close-to-market, systemic innovation approaches in a real-world environment. Generally, real laboratories start at a technology readiness level (TRL) of 6-7 and reach TRL 8-9 by the end of the project. They are intended to contribute to the acceleration of the energy transition on the path to climate neutrality of the German energy system.</p> <p><u>Resource-efficient management</u></p> <p>NRW supports projects in the field of material and</p>	

⁴¹ This column is based on input provided by the issuer.

⁴² [Energieforschungsoffensive.NRW - Energieforschung.NRW](#)

	<p>energy efficiency in companies. The purpose of the funding is to support economic and ecological structural change, to sustainably improve the quality of life and the environment in NRW and to develop NRW as a location for environmentally and resource-efficient production technology. Exemplary areas include:</p> <ul style="list-style-type: none"> -Resource and energy efficiency improvement -Balancing tool (eco-cockpit) is used to assess the resource and GHG savings effect of the new products or processes. -Investments in circular & resource efficient production applied in the outcome are innovative but mature and comply with TRL 8 and higher. GHG emissions are recorded with a tool (eco-cockpit) and verified by an independent third party. 	
2. CLIMATE CHANGE ADAPTATION – DO NO SIGNIFICANT HARM CRITERIA		
<p>GENERIC CRITERIA FOR (2)</p>	<p>The issuer states that all relevant projects have a clear focus on the future and target the development of solutions to respond to global warming and other climate impacts. After successful research, testing and in case of the implementation of any developed solution, all prevailing standards and regulatory requirements would be required meaning that compliance with the DNSH criteria would likely. The actual standards and regulations might differ depending on the activity the research/solution is related to.</p>	<p>Eligible for assessing alignment at later date, when the researched projects are produced</p>
3. WATER AND MARINE RESOURCES – DO NO SIGNIFICANT HARM CRITERIA		
<p>Any potential risks to the good status or the good ecological potential of bodies of water, including surface water and groundwater, or to the good environmental status of marine waters, from the researched technology, product or other solution are evaluated and addressed.</p>	<p>Directive 2000/60/EC, the Water Framework Directive, has been transposed into German law. Moreover, Germany has transposed the EU Directive on Environmental Impact Assessment 2011/92/EU into national regulation, which also covers potential impacts on bodies of water.</p> <p>If and when the R&D expenditures result in real projects and technologies, they will be subject to the above EU Directives, as well as other regulations around impacts on water bodies.</p>	<p style="text-align: right;">✓</p>
4. CIRCULAR ECONOMY – DO NO SIGNIFICANT HARM CRITERIA		
<p>Any potential risks to the circular economy objectives from the researched technology, product or other solution are evaluated and addressed, by considering the</p>	<p>If and when the R&D expenditures result in real projects and technologies, they will be subject to Waste Framework Directive as well as other EU and German regulations related to improved product designs and circular economy.</p>	<p style="text-align: right;">✓</p>

types of potential significant harm as set out in Article 17(1), point. (d), of Regulation (EU) 2020/852.		
5. POLLUTION – DO NO SIGNIFICANT HARM CRITERIA		
Any potential risks to generate a significant increase in the emissions of pollutants to air, water or land from the researched technology, product or other solution are evaluated and addressed.	If and when the R&D expenditures result in real projects and technologies, they will be subject to the Water Framework Directive, the Air Quality Directive, the EIA Directive and other EU or Germany regulations regarding pollution.	✓
6. BIODIVERSITY AND ECOSYSTEMS – DO NO SIGNIFICANT HARM CRITERIA		
Any potential risks to the good condition or resilience of ecosystems or to the conservation status of habitats and species, including those of Union interest, from the researched technology, product or other solution are evaluated and addressed.	If and when the R&D expenditures result in real projects and technologies, they will be subject to the relevant EIA and SEA legislation, and other EU or Germany regulations relating to their environmental impact.	✓

B.1 5.1. Construction, extension and operation of water collection, treatment and supply systems

EU TAXONOMY REQUIREMENT	GREEN PROJECTS OWN PERFORMANCE AND SELECTION PROCESSES ⁴³	ALIGNMENT
1. SUBSTANTIAL CONTRIBUTION TO CLIMATE CHANGE ADAPTATION – TECHNICAL SCREENING CRITERIA		
<i>Please refer to section 2.1 in the Technical Annex 2 to the Delegated Act (Climate Change Adaptation) for a full overview of the criteria.</i>	<p>North Rhine-Westphalia has established a sophisticated flood protection program, which is particularly essential in the face of increasing climate change induced flooding. The program is interlinked with the water collection, treatment and supply systems in the region and includes:</p> <ul style="list-style-type: none"> - current flood reports to the population, - the implementation of the EC Flood Risk Management Directive with the creation of flood risk maps and flood risk management plans as well as - identifying and designating flood plains. <p>In addition, the heavy rain indicator map of the Federal Agency for Cartography and Geodesy for</p>	✓

⁴³ This column is based on input provided by the issuer.

NRW is available in the specialist information system for climate adaptation of the LANUV (<http://www.klimaAdaptation-karte.nrw.de/>). Under the subject of flooding, detailed area information on the expected water depths and flow velocities in the event of rare and extremely heavy rain is presented down to the level of the individual street.

Further, the issuer cites the following measures:

- technical flood protection (e.g. dyke construction)
- informing the population about precautionary measures, including
- Precautionary building and construction methods:
- Behavioral precautions: Concrete action in the event of a flood
- Risk prevention: protection, insurance protection

The flood protection program will also be developed and updated in conjunction with the other climate change adaptation work that the State of NRW is doing. For example, the State of NRW has recently passed the Climate Adaptation Act⁴⁴, the first of its kind in Germany, which obliges all public authorities to account for climate change impacts for all expenditures through the development and implementation of adaptation measures that are specific to each field of action and tailored to the respective region. The law also stipulates that scientifically sound climate impact and adaptation monitoring will be carried out throughout the state. Whilst the law does not yet specify how exactly the assessment will be conducted, the issuer confirms that the assessments will also draw on the national Climate impact and risk analysis for Germany 2021⁴⁵, which provides detailed information on climate risk and vulnerability across Germany and is used as a source of information on sub-sovereign / state level. This analysis addresses a total of 102 climate impacts and examines and evaluates across 13 fields of action. Given the requirements of the law, it is likely that practitioners will rely on best market practices when conducting such assessment, which could significantly overlap with the details listed in the EUT requirements.

NRW also takes guidance from the National Adaptation Plans developed by Germany which will

⁴⁴ https://recht.nrw.de/lmi/owa/br_vbl_detail_text?anw_nr=6&vd_id=19634&ver=8&val=19634&sg=0&menu=0&vd_back=N

⁴⁵ [Climate Impact and Risk Assessment 2021 for Germany - Summary \(umweltbundesamt.de\)](https://www.umweltbundesamt.de/en/press-releases/2021/04/climate-impact-and-risk-assessment-2021-for-germany)

	take into account necessary climate adaptation provisions. (https://climate-adapt.eea.europa.eu/countries-regions/countries/germany).	
2. CLIMATE CHANGE MITIGATION – DO NO SIGNIFICANT HARM CRITERIA		
N/A	N/A	N/A
3. WATER AND MARINE RESOURCES – DO NO SIGNIFICANT HARM CRITERIA		
GENERIC CRITERIA FOR (3)	See C.2	✓
4. CIRCULAR ECONOMY – DO NO SIGNIFICANT HARM CRITERIA		
N/A	N/A	N/A
5. POLLUTION – DO NO SIGNIFICANT HARM CRITERIA		
N/A	N/A	N/A
6. BIODIVERSITY AND ECOSYSTEMS – DO NO SIGNIFICANT HARM CRITERIA		
GENERIC CRITERIA FOR (6)	See C.3	✓

C.1 Generic Criteria for DNSH to Climate Change Adaptation for all relevant eligible expenditures

EU TAXONOMY REQUIREMENT	GREEN PROJECTS OWN PERFORMANCE AND SELECTION PROCESSES ⁴⁶	ALIGNMENT
2. CLIMATE CHANGE ADAPTATION – DO NO SIGNIFICANT HARM CRITERIA		
<p>The physical climate risks that are material to the activity have been identified from those listed in the table in Section II (of the Delegated Act) by performing a robust climate risk and vulnerability assessment with the following steps:</p> <p>(a) screening of the activity to identify which physical climate risks from the list in Section II (of the Delegated Act) may affect the performance of the economic activity during its expected lifetime;</p>	<p>The State of NRW has recently passed the Climate Adaptation Act⁴⁷, the first of its kind in Germany, which obliges all public authorities to account for climate change impacts for all expenditures through the development and implementation of adaptation measures that are specific to each field of action and tailored to the respective region. The law also stipulates that scientifically sound climate impact and adaptation monitoring will be carried out throughout the state. Whilst the law does not yet specify how exactly the assessment will be conducted, the issuer confirms that the assessments will also draw on the national Climate impact and risk analysis for Germany</p>	✓

⁴⁶ This column is based on input provided by the issuer.

⁴⁷ https://recht.nrw.de/lmi/owa/br_vbl_detail_text?anw_nr=6&vd_id=19634&ver=8&val=19634&sg=0&menu=0&vd_back=N

(b) where the activity is assessed to be at risk from one or more of the physical climate risks listed in Section II (of the Delegated Act), a climate risk and vulnerability assessment to assess the materiality of the physical climate risks on the economic activity;

(c) an assessment of adaptation solutions that can reduce the identified physical climate risk.

The climate risk and vulnerability assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using climate projections at the smallest appropriate scale;

(b) for all other activities, the assessment is performed using the highest available resolution, state-of-the-art climate projections across the existing range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 year climate projections scenarios for major investments.

For new activities and existing activities using newly-built physical assets, the economic operator integrates the adaptation solutions that reduce the most important identified physical climate risks that are material to that activity at the time of design and construction and has implemented them before the start of operations. The adaptation solutions implemented do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of

2021⁴⁸, which provides detailed information on climate risk and vulnerability across Germany and is used as a source of information on sub-sovereign / state level. This analysis addresses a total of 102 climate impacts and examines and evaluates across 13 fields of action. Given the requirements of the law, it is likely that practitioners will rely on best market practices when conducting such assessment, which could significantly overlap with the details listed in the EUT requirements.

NRW also takes guidance from the National Adaptation Plans developed by Germany which will take into account necessary climate adaptation provisions. (<https://climate-adapt.eea.europa.eu/countries-regions/countries/germany>).

Finally, the issuer refers to German national laws and standards which includes elements related to climate change adaptation in project planning. These include:

- the Regional Planning Act (ROG Section 1 under §2 (2) 6);
- the Building Code (BauGB, Chapter 2, Part 1, Section 1 under §136 (2) 1);
- the Environmental Impact Assessment Act (UVPG, Annex 4, (4) c) hh); and
- the Water Resources Act (WHG, Chapter 2, Section 1, §6 (1) 6).

⁴⁸ [Climate Impact and Risk Assessment 2021 for Germany - Summary \(umweltbundesamt.de\)](https://www.umweltbundesamt.de/en/themes/energy-climate/energy-climate-impacts/energy-climate-impacts-2021)

<p>nature, of cultural heritage, of assets and of other economic activities; are consistent with local, sectoral, regional or national adaptation strategies and plans; and consider the use of nature-based solutions or rely on blue or green infrastructure to the extent possible.</p> <p>The climate projections and assessment of impacts are based on best practice and available guidance and take into account the state-of-the-art science for vulnerability and risk analysis and related methodologies in line with the most recent Intergovernmental Panel on Climate Change reports, scientific peer-reviewed publications, and open source or paying models. For existing activities and new activities using existing physical assets, the economic operator implements physical and non-physical solutions ('adaptation solutions'), over a period of time of up to five years, that reduce the most important identified physical climate risks that are material to that activity. An adaptation plan for the implementation of those solutions is drawn up accordingly.</p>		
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C.2 Generic Criteria for DNSH to Sustainable use and protection of water and marine resources for all relevant eligible expenditures

EU TAXONOMY REQUIREMENT	GREEN PROJECTS OWN PERFORMANCE AND SELECTION PROCESSES ⁴⁹	ALIGNMENT
3. SUSTAINABLE USE AND PROTECTION OF WATER AND MARINE RESOURCES – DO NO SIGNIFICANT HARM CRITERIA		
Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed with the aim of achieving good water status and good ecological potential as defined in Article 2, points (22) and (23), of	Directive 2000/60/EC, the Water Framework Directive, has been transposed into German law. Moreover, Germany has transposed the EU Directive on Environmental Impact Assessment 2011/92/EU into national regulation.	✓

⁴⁹ This column is based on input provided by the issuer.

<p>Regulation (EU) 2020/852, in accordance with Directive 2000/60/EC of the European Parliament and of the Council and a water use and protection management plan, developed thereunder for the potentially affected water body or bodies, in consultation with relevant stakeholders.</p> <p>Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU of the European Parliament and of the Council and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.</p>	<p>According to the issuer, the purpose of the Environmental Impact Assessment (EIA) is to ensure that the effects of a project on the environment are identified, described and assessed comprehensively at an early stage and that the results of the environmental assessments carried out are taken into account as early as possible in all official decisions on the decisions on the permissibility of projects as early as possible.</p> <p>According to § 2 UVPG, this assessment comprises of various objects of protection, including impacts on water.</p> <p>Therefore all projects and expenditures financed under this Framework will be subject to relevant provisions under the Water Framework Directive and EIA Directive.</p>	
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C.3 Generic Criteria for DNSH to Protection and restoration of biodiversity and ecosystems for all relevant eligible expenditures

EU TAXONOMY REQUIREMENT	GREEN PROJECTS OWN PERFORMANCE AND SELECTION PROCESSES ⁵⁰	ALIGNMENT
6. PROTECTION AND RESTORATION OF BIODIVERSITY AND ECOSYSTEMS– DO NO SIGNIFICANT HARM CRITERIA		
<p>An Environmental Impact Assessment (EIA) or screening has been completed in accordance with Directive 2011/92/EU. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment, where applicable, has been</p>	<p>Germany has transposed the EU Directive on Environmental Impact Assessment 2011/92/EU into national regulation.</p> <p>The issuer cites the purpose of the German Environmental Impact Assessment (EIA) Act (Gesetz über die Umweltverträglichkeitsprüfung (UVPG)), which is to ensure that the effects of a project on the environment are identified, described and assessed comprehensively at an early stage and that the results of the environmental assessments carried out are taken into account as early as possible in all official decisions on the decisions on the permissibility of projects as early as possible.</p>	

⁵⁰ This column is based on input provided by the issuer.

<p>conducted and based on its conclusions the necessary mitigation measures are implemented.</p>	<p>Elements such as protected areas and world heritage sites are part of the assessment and also included in the dedicated checklist for the determination of the EIA obligation. Further, the issuer references the following German legislative laws and convention, which are applicable to all projects and expenditures financed under this Framework:</p> <ul style="list-style-type: none"> • Law on Nature Conservation and Landscape Care (Gesetz über Naturschutz und Landschaftspflege) (BNatSchG) • Convention on Biological Diversity (Übereinkommen über die biologische Vielfalt) (CBD) <p>Most projects are stated to be implemented via the development plan process at the municipal level. According to the issuer, this ensures a detailed environmental report and the participation of the public interest organizations (TÖB). The latter is important in order to create sufficient acceptance.</p> <p>However, cross-municipal spatial planning would be important here so that cumulative effects are taken into account. The areas of the European Natura 2000 network, consisting of the EU bird sanctuaries and FFH areas (Fauna-Flora-Habitat), should basically, wetlands of international importance (Ramsar areas), nature reserves, national parks, core and buffer zones of biosphere reserves be excluded from the expansion of PV-FFA. Exceptions can be made in nature parks and in individual cases in landscape protection areas and BSR development zones, as long as they do not conflict with the protection objective.</p> <p>FFH areas mostly form part of a Natura 2000 network and are often quite small</p>	
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Minimum Social Safeguards

ISS ESG assessed the alignment of the due diligence and selection processes in place with the EU Taxonomy Minimum Social Safeguards as described in Article 18 of the Taxonomy Regulation⁵¹. The results of this assessment are applicable for every Project Category financed under this framework and are displayed below:

EU TAXONOMY REQUIREMENT	GREEN PROJECTS OWN PERFORMANCE AND SELECTION PROCESSES	ALIGNMENT
<p>Alignment with the OECD Guidelines for Multinational Enterprises and the UN Guiding Principles on Business and Human Rights, including the principles and rights set out in the eight fundamental conventions identified in the Declaration of the International Labour Organisation on Fundamental Principles and Rights at Work and the International Bill of Human Rights.</p>	<p>OECD Guidelines for MNEs</p> <p>The issuer confirms that, due to Germany being a signatory, the country and states adhere to the OECD Guidelines for Multinational Enterprises and Responsible Business Conduct (as signatory).</p> <p>UN Guiding Principles</p> <p>The issuer has instigated a national action plan for the implementation of the United Nations Guiding Principles. Moreover, the German government has adopted the first National Action Plan for Business and Human Rights in 2016.</p> <p>With respect to human rights, on June 11, 2021, the German parliament passed the “Law on corporate due diligence in supply chains” (“Supply Chain Law”) (“Lieferkettensorgfaltspflichtengesetz”). It requires companies to take steps to prevent human rights violations in their supply chains.</p> <p>ILO Core Conventions</p> <p>Germany has ratified the Protocol of 2014 to the Forced Labour Convention becoming the 36th ILO Member State to ratify the protocol. Through this ratification, Germany has made a formal commitment to apply this international instrument, which gives new impetus to action against all forms of forced labour, including trafficking in persons. The ratification of the ILO Protocol calls for all relevant entities - governments, social partners, civil society actors and consumers to join forces at both national and international levels to ensure that working conditions are decent and fair.</p>	<p style="text-align: center;">✓</p>

⁵¹ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32020R0852>

Further, Germany has set up a comprehensive framework for combatting all forms of forced labour. The Government has also taken steps with respect to the identification of victims of trafficking, for instance special features and indicators for identifying victims were developed by the Länder and were made available to the Länder's police forces with appropriate training.

Corruption

Public Procurement Policy: the German approach to procurement is strongly focused on economic efficiency. More recently, policies aimed at fostering secondary procurement objectives such as innovation and environmental sustainability have been introduced. These procurement objectives take into account the European Commission's guidance for social considerations in public procurement.

German Draft Law on Whistleblower Protection: As the last draft of a "Whistleblower Protection Act" already provided, whistleblowers are to be protected not only when reporting breaches of EU law, but also when reporting breaches of regulations or other significant misconduct, the disclosure of which is in the special public interest.

Disclaimer

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ANNEX 1: Methodology

EU Taxonomy

ISS ESG evaluates whether the details of the nominated projects and assets or project selection eligibility criteria included in the Sustainability Bond Framework meet the criteria listed in relevant Activities in the EU Taxonomy Climate Delegated Act (June 2021)

The evaluation shows to understand if NRW's eligible projects are indicatively in line with the requirements listed in the EU Taxonomy Technical Annex.

The evaluation was carried out using information and documents provided to ISS ESG on a confidential basis by NRW (e.g. Due Diligence Reports). Further, national legislation and standards, depending on the project category location, were drawn on to complement the information provided by the issuer.

Environmental and social risks assessment methodology

ISS ESG evaluates whether the assets included in the asset pool match the eligible project category and criteria listed in the Green Bond KPIs.

All percentages refer to the amount of assets within one category (e.g. wind power). Additionally, the assessment "no or limited information is available" either indicates that no information was made available to ISS ESG or that the information provided did not fulfil the requirements of the ISS ESG Green Bond KPIs.

The evaluation was carried out using information and documents provided to ISS ESG on a confidential basis by NRW (e.g. Due Diligence Reports). Further, national legislation and standards, depending on the asset location, were drawn on to complement the information provided by the issuer.

Assessment of the contribution and association to the SDG

The 17 Sustainable Development Goals (SDGs) were endorsed in September 2015 by the United Nations and provide a benchmark for key opportunities and challenges toward a more sustainable future. Using a proprietary method, ISS ESG identifies the extent to which NRW's Sustainability Bond contributes to related SDGs.

ANNEX 2: ISS ESG Country Rating Methodology

The following pages contain methodology description of the ISS ESG Country Rating.

Methodology - Overview

The ESG Country Rating methodology was originally developed by Institutional Shareholder Services Germany (formerly oekom research) and has been consistently updated for many years.

ESG Country Rating – The ESG Country Rating universe comprises 58 countries, as well as Hong Kong and the European Union, representing 96 per cent of global outstanding sovereign debt (as of June 2018). The assessment of a country's sustainability performance is based on approximately 100 environmental, social and governance criteria with equal weight assigned to the social and environmental dimension. All criteria are individually weighted and evaluated and the results are aggregated to yield an overall score (rating). The selection of criteria is derived from ISS ESG's understanding of sustainability and reflects various global challenges that are embodied in the Sustainable Development Goals. Criteria are selected according to their relevance (materiality) and the quality of data regarding availability, up-to-dateness and consistency for all the countries rated.

Country controversies – In addition to the rating, ISS ESG conducts a comprehensive analysis of relevant controversies. Thereby, our clients have the possibility to consider, either separately or in addition to the rating, circumstances in areas they view as especially critical. The country controversy assessment is either directly derived from information provided by credible and acknowledged external sources, such as indices or blacklists, or it is based on the country's performance in the respective rating section. In the latter cases, underperformance in a specific set of indicators constitutes a controversy. Some controversy issues are delineated on different levels of severity.

Country leaders - List (in alphabetical order) of the top three countries from the ESG Country Rating universe at the time of generation of this report.

Criteria design – The rating comprises both qualitative and quantitative criteria. For instance, the safeguarding of fundamental freedoms by a country's government is mostly assessed in qualitative terms, while a country's consumption of resources is quantified. Qualitative criteria are evaluated against absolute targets and/or best practices, the assessment of quantitative indicators is based on thresholds. Those either reflect normative considerations and/or relative performance in a given area. In order to ensure their validity, some quantitative indicators are normalised against eligible denominators. To assess the quality of government policy in a specific area, we use indicators measuring input, such as spending on education as a proportion of GDP, as well as criteria measuring output, such as female participation in education.

Decile Rank - The Decile Rank indicates in which decile (tenth part of total) the individual Country Rating ranks from 1 (best – country's rating is in the first decile within the country universe) to 10 (lowest – country's rating is in the tenth decile within the country universe). The Decile Rank is determined based on the underlying numerical score of the rating. If the total number of countries cannot be evenly divided by ten, the surplus countries are distributed from the top (1. decile) to the bottom. If there are Country Ratings with identical absolute scores that would span a division in decile ranks, all ratings with an equal decile score are classified in the higher decile, resulting in a smaller number of Country Ratings in the decile below.

Distribution of Ratings - Overview of the distribution of the ratings of all countries that are included in the ESG Country Rating universe (country portrayed in this report: dark blue).

Rating Scale – countries are rated on a twelve-point scale from A+ to D-:

A+: the country shows excellent performance

D-: the country shows poor performance

Overview of the range of scores achieved in the ESG Country Rating universe (light blue) and indication of the grade of the country evaluated in this report (dark blue).

Sources of Information - The sources we draw on include international institutions such as the World Bank, the International Energy Agency (IEA) and the World Health Organisation (WHO), as well as respected non-governmental organisations such as Amnesty International, Transparency International and the Stockholm International Peace Research Institute (SIPRI). A selection of sources used for this report is illustrated in the annex.

Status & Prime Threshold – Countries are categorised as Prime if they achieve/exceed the minimum sustainability performance requirements (Prime threshold) defined by ISS ESG for the Country Rating.

Update cycle - The vast majority of rating criteria is updated annually, only single indicators receive event-driven updates. The exact timing is determined by the publication dates of major sources of information.

ANNEX 3: Quality management processes

SCOPE

NRW commissioned ISS ESG to compile a Sustainability Bond SPO. The Second Party Opinion process includes verifying whether the Sustainability Bond Framework aligns with the GBP, SBP & SBG and to assess the sustainability credentials of its Sustainability Bond, as well as the issuer's sustainability strategy.

CRITERIA

Relevant Standards for this Second Party Opinion

- ICMA Green Bond Principles (June 2021)
- ICMA Social Bond Principles (June 2021)
- ICMA Sustainability Bond Guidelines (June 2021)
- EU Taxonomy Climate Delegated Act (June 2021)

ISSUER'S RESPONSIBILITY

NRW's responsibility was to provide information and documentation on:

- Framework
- Eligible Projects
- Documentation of ESG risks management at the project level

ISS ESG'S VERIFICATION PROCESS

ISS ESG is one of the world's leading independent environmental, social and governance (ESG) research, analysis and rating houses. The company has been actively involved in the sustainable capital markets for over 25 years. Since 2014, ISS ESG has built up a reputation as a highly-reputed thought leader in the green and social bond market and has become one of the first CBI approved verifiers.

ISS ESG has conducted this independent Second Party Opinion of the Sustainability Bond to be issued by NRW based on ISS ESG methodology and in line with the ICMA GBP, SBP & SBG.

The engagement with NRW took place from March to May 2022.

ISS ESG'S BUSINESS PRACTICES

ISS has conducted this verification in strict compliance with the ISS Code of Ethics, which lays out detailed requirements in integrity, transparency, professional competence and due care, professional behaviour and objectivity for the ISS business and team members. It is designed to ensure that the verification is conducted independently and without any conflicts of interest with other parts of the ISS Group.

About ISS ESG SPO

ISS ESG is one of the world's leading rating agencies in the field of sustainable investment. The agency analyses companies and countries regarding their environmental and social performance.

As part of our Sustainable (Green & Social) 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 assess alignment with external principles (e.g. the ICMA Green / Social Bond Principles), analyse the sustainability quality of the assets and review the sustainability performance of the issuer themselves. Following these three steps, we draw up an independent SPO so that investors are as well informed as possible about the quality of the bond / loan from a sustainability perspective.

Learn more: <https://www.isscorporatesolutions.com/solutions/esg-solutions/green-bond-services/>

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