°CICERO Shades of Green

Landwirtschaftliche Rentenbank
Green Bond Second Opinion

July 6, 2020

Landwirtschaftliche Rentenbank ("Rentenbank") is Germany's development agency for agribusiness and rural areas. Rentenbank provides financing through intermediaries primarily for agriculture, forestry and animal husbandry, and has adopted sustainability tracks within these promotional programmes for projects that contribute to sustainable growth. Through this green bond framework, Rentenbank aims to aid the progress of Germany's Energy Transition through the implementation of renewable energy projects on rural land. Since 2013, Rentenbank has issued 6 green bonds in a private placement format and is now expanding to greater volume with public transactions.

The green bond framework lists eligible projects within the renewable energy category, specifically the generation, storage and transmission of electricity from wind and solar PV projects. These projects aim to promote the low-carbon transition in Germany, which is a major priority area for the German government as the country aims to reach 65% renewable generation by 2030, from its 2019 level of 46%. As a promotional bank Rentenbank does not exclude any of its agricultural clients from financing under this framework incl., e.g., industrial meat producers. Rentenbank informed us that renewable energy projects that are not connected to the grid are excluded in Rentenbank's Rural Energy promotional programme as well as under this framework.

While Rentenbank has demonstrated clear intent towards promoting sustainability and aligning with climate goals, it is only at the beginning stage of this process. Rentenbank has imposed a narrow definition of eligible projects and incorporates a two-step selection process with the local bank's own screenings, which provide some safeguards in this area. Rentenbank does not yet have specific goals for climate-related funding. Rentenbank also does not currently report on its Scope 1, 2, or 3 emissions and does not conduct its own life-cycle assessments or screening for potentially controversial projects (e.g., wind projects) nor do they align with the TCFD recommendations. However, this framework does outline plans for allocation and impact reporting, and Rentenbank is working on a "best-efforts basis" to incorporate aspects from the EU Taxonomy. The impact report will be externally provided by ZSW and aligns with the ICMA Harmonized Framework for Impact Reporting.

Based on the overall assessment of the projects that will be financed under this framework, and governance and transparency considerations, Rentenbank's green bond framework receives a **CICERO Dark Green** shading and a governance score of **Good**. In order to improve the framework, Rentenbank would benefit from going beyond its legal obligations in incorporating more rigorous climate targets and emission reporting as well as environmental screening of projects.

SHADES OF GREEN

Based on our review, we rate the Rentenbank's green bond framework **CICERO Dark Green.**

Included in the overall shading is an assessment of the governance structure of the green bond framework. CICERO Shades of Green finds the governance procedures in Rentenbank's framework to be **Good**.

GREEN BOND PRINCIPLES

Based on this review, this framework is found to be in alignment with the principles.

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1 Terms and methodology

This note provides CICERO Shades of Green's (CICERO Green) second opinion of the client's framework dated June 2020. This second opinion remains relevant to all green bonds and/or loans issued under this framework for the duration of three years from publication of this second opinion, as long as the framework remains unchanged. Any amendments or updates to the framework require a revised second opinion. CICERO Green encourages the client to make this second opinion publicly available. If any part of the second opinion is quoted, the full report must be made available.

The second opinion is based on a review of the framework and documentation of the client's policies and processes, as well as information gathered during meetings, teleconferences and email correspondence.

Expressing concerns with 'shades of green'

CICERO Green second opinions are graded dark green, medium green or light green, reflecting a broad, qualitative review of the climate and environmental risks and ambitions. The shading methodology aims to provide transparency to investors that seek to understand and act upon potential exposure to climate risks and impacts. Investments in all shades of green projects are necessary in order to successfully implement the ambition of the Paris agreement. The shades are intended to communicate the following:

CICERO Shades of Green	Examples
Dark green is allocated to projects and solutions that correspond to the long-term vision of a low carbon and climate resilient future. Fossil-fueled technologies that lock in long-term emissions do not qualify for financing. Ideally, exposure to transitional and physical climate risk is considered or mitigated.	Wind energy projects with a strong governance structure that integrates environmental concerns
Medium green is allocated to projects and solutions that represent steps towards the long-term vision, but are not quite there yet. Fossil-fueled technologies that lock in long-term emissions do not qualify for financing. Physical and transition climate risks might be considered.	Bridging technologies such as plug-in hybrid buses
Light green is allocated to projects and solutions that are climate friendly but do not represent or contribute to the long-term vision. These represent necessary and potentially significant short-term GHG emission reductions, but need to be managed to avoid extension of equipment lifetime that can lock-in fossil fuel elements. Projects may be exposed to the physical and transitional climate risk without appropriate strategies in place to protect them.	Efficiency investments for fossil fuel technologies where clean alternatives are not available
Brown is allocated to projects and solutions that are in opposition to the long-term vision of a low carbon and climate resilient future.	New infrastructure for coal

Sound governance and transparency processes facilitate delivery of the client's climate and environmental ambitions laid out in the framework. Hence, key governance aspects that can influence the implementation of the green bond are carefully considered and reflected in the overall shading. CICERO Green considers four factors in its review of the client's governance processes: 1) the policies and goals of relevance to the green bond framework; 2) the selection process used to identify and approve eligible projects under the framework, 3) the management of proceeds and 4) the reporting on the projects to investors. Based on these factors, we assign an overall governance grade: Fair, Good or Excellent. Please note this is not a substitute for a full evaluation of the governance of the issuing institution, and does not cover, e.g., corruption.

2 Brief description of Rentenbank's green bond framework and related policies

Landwirtschaftliche Rentenbank ("Rentenbank") is Germany's development agency for agribusiness and rural areas. As a promotional bank Rentenbank provides financing through intermediaries towards businesses operating in the agricultural, forestry, viticulture and horticulture sectors, manufacturers of agricultural production resources and enterprises and service providers which are closely connected to agriculture. It also finances projects in the animal husbandry and the associated upstream and downstream industries, across the entire value chain of food production.

Rentenbank offers special promotional loans exclusively in Germany with around 20,000 loans granted per year, as well as general financing of regional authorities and banks. Of the total new promotional business (EUR 10.6 billion in 2019), 8% were in renewable energy, 16% in rural development, 31% in agriculture and agribusiness and 44% in general financing of regional authorities and banks. One fifth of all new special promotional business (EUR 6 billion in 2019) made by Rentenbank was in the "sustainability" category, which includes renewable energy, sustainable agribusiness and humane animal husbandry. Rentenbank receives legal supervision by the Federal Ministry of Food and Agriculture – which makes its decisions in agreement with the Federal Ministry of Finance – and is subject to banking supervision by the Federal Financial Supervisory Authority (BaFin) and the Bundesbank.

Environmental Strategies and Policies

Rentenbank operates with sustainability as a guiding principle, and recognizes the inherent interactions between the environment and agribusiness. Rentenbank is a member of the ICMA Green Bond Principles and Social Bond Principles and has stated a commitment to promoting biodiversity, capturing and sequestering carbon dioxide through forestry, producing renewable energy and reducing methane emissions in animal husbandry. Currently, Rentenbank does not measure its Scope 1, 2 and 3 emissions from its own operations and does not measure emissions from its lending activities. They are planning to report on their GHG emissions for the Eligible Green Loan portfolio beginning in 2020 and on the renovated office building as of 2024. Accordingly, Rentenbank does not yet have climate targets for its operations or lending beyond Rentenbank's plans to increase the energy efficiency of the Rentenbank's office building. Rentenbank also does not report on climate-related risk and does not yet align with the TCFD recommendations, however Rentenbank has stated it recognizes its role in financing projects that arise due to physical and transition risks.

Generally, Rentenbank relies on German laws and regulations e.g., the Renewable Energy Sources Act to ensure compliance with sustainability and climate goals. This applies for its financing of Renewable energy projects as well as forestry and agriculture projects. Rentenbank has five distinctive programmes in place to encourage sustainable investments in agribusiness: the Environmental & Consumer Protection Programme and the two Sustainability programmes within both the Agriculture which includes animal welfare and the Aquaculture & Fisheries promotional lines – all of which providing lower interest loans to sustainable projects and supporting energy efficiency and reduction of emissions; the new Forestry promotional programme; the Rural Energy Program, within the Renewable Energy Promotional Line, which finances wind power, photovoltaics and biogas plants. Some examples of funded projects within these programs include constructing a community wind farm with 23 turbines and a total output of 90 MW, carbon neutral heated greenhouses using a biomass CHP, and building new stables and slurry tanks for ecological dairy and pig farms. While Rentenbank expects to see growth

within these five programmes, Rentenbank's mandate states that they cannot discriminate between its agricultural clients (e.g., against businesses conducting industrial meat production).

In 2019, Rentenbank contributed EUR 1.2 billion to sustainable projects, of which EUR 0.9 billion was in renewable energy projects, EUR 321 million in environmental, animal and consumer protection, EUR 84 million in organic farming, and EUR 118.8 million in humane husbandry. After reaching a peak in 2017 at EUR 2.36 billion investments in renewable energy, funding for renewable energy decreased by 39% in 2018 to near 2015 levels, and fell by a further 37% in 2019. In 2019, demand for wind power halved and demand for solar power fell by 36%. Rentenbank has stated this was due to the changing political climates, as under the Renewable Energy Sources Act of 2017, large-scale renewable projects are now required to feed-in to the grid through a tendering process, which lowers incentives toward investing in renewables. Rentenbank notes that there are currently indications of increasing appetite for sustainable investments in the near future. Rentenbank states that the inclusion of local residents and farmers in renewable energy projects "improves the willingness to accept the building of new turbines", and gave EUR 108.9 million of a total EUR 222.9 million in 2019 to community wind projects. Rentenbank has also financed R&D of 14 million for 49 projects in 2019, within animal welfare, emissions reductions, improving biodiversity and sustainable usage of resources, some of which some have a positive impact on climate-related goals according to the issuer.

Rentenbank aims to maximize funding for installed capacity and funding of wind and solar projects, but they do not have explicit targets for these areas, since demand for loans is influenced by demand from the intermediaries they serve, as well as changes in the Renewable Energy Sources Act. However, in March 2020 they commissioned an impact study to estimate the avoided greenhouse gas emissions from its Eligible Green Loan Portfolio in 2019. This amounted to 798,800 tons of CO_2e from PV installations and 4,159,900 tons of CO_2e for wind installations.

Rentenbank issued its first green bond worth EUR 50 million in 2013 to fund a project in the Rural Energy promotional programme, which also included bio energy projects. Rentenbank has since issued five further green bonds for a total of EUR 379.1 million, all within the Rural Energy promotional line. All green bonds to date have been issued in a tailored private placement format in different currencies, and Rentenbank is now looking to expand with larger public transactions to finance wind and photovoltaic plants based on the ICMA Green Bond Principles and the UN Sustainable Development Goals, planned for launch in the third quarter of 2020.

Use of proceeds

An amount equal to the net proceeds of any Rentenbank green bond will be applied to finance new or refinance existing projects that fall under its Rural Energy promotional programme. The total Eligible Green Loan portfolio consists of EUR 5.84 billion, with 4 billion in wind projects and 1.84 billion in solar projects. These green loans date back until 2008 for solar PV and 2009 for wind projects. New projects are defined as projects that occurred in the reporting year (e.g., in 2019). Throughout the year of 2019, Rentenbank issued eligible new loans worth 267 million. After full allocation to the existing portfolio, Rentenbank plans to only finance new projects. This includes installations of new generation capacity, storage and distribution from onshore wind turbines and solar photovoltaic installations. All projects are located in Germany, and connected to the German electricity grid. Rentenbank does not generally finance offshore wind projects. Despite the high share of biogas plants in Rentenbank's existing portfolio, they are excluded from the green bond framework. Debt rescheduling is excluded from the framework and from the "rural energy" promotional programme.

Rentenbank also plans to align on a "best efforts basis" with the EU taxonomy and the EU Green Bond Standard once they are finalized. Currently Rentenbank only ensures that the projects make a "positive" contribution to the objective of climate change mitigation in general.

Selection

The selection process is a key governance factor to consider in CICERO Green's assessment. CICERO Green typically looks at how climate and environmental considerations are considered when evaluating whether projects can qualify for green finance funding. The broader the project categories, the greater importance CICERO Green places on the governance process.

The administering of individual loans within the Rural Energy promotional programme is characterized by two separate approval processes: for each borrower, an intermediary first approves the loan and then Rentenbank approves the refinancing for the intermediary. Eligible Green Loans will be extended to borrowers not directly by Rentenbank, but by intermediaries, such as commercial banks, local saving banks (e.g., "Sparkassen") – these financial institutions apply their regular loan procedure and assume the liability for repayment and screen against the respective programs' eligibility criteria. Rentenbank then approves to refinance the commercial bank based on compliance with requirements for the promotional line. Rentenbank does not set conditions on impact assessments nor execute any control activities, but does conduct a random control for compliance with the contractually agreed investment purpose within the commercial banks.

Rentenbank has a separate Green Bond Committee (GBC) in charge of evaluation, selection and monitoring eligible green loans once they have been approved by the aforementioned commercial bank. The GBC is comprised of representatives from the Treasury, the Promotional Loans department and the Legal department, as well as internal representatives when it is deemed appropriate. Rentenbank has informed CICERO Green they will soon hire a sustainability specialist to provide environmental expertise. All decisions will be consensus-based.

As part of the selection process, the GBC assesses projects' compliance with the upcoming EU Taxonomy and, where possible, positive impact of projects, e.g., GHG emissions avoided. Existing assets earmarked for Green Bond private placements between 2013 and 2019 are not eligible for green bond financing in the new portfolio. The project must additionally comply with the German Renewable Sources Act and fulfil the criteria of the Rural Energy Promotional program. External expertise is not involved in the selection process. Rentenbank does not conduct life-cycle assessments of the Rural Energy projects, as they rely on official German environmental and social standards and local laws and regulations.

The GBC will closely monitor developments from the EU Taxonomy and adjust the framework accordingly. Rentenbank takes on board published expectations from BaFin, Germany's Federal Financial Supervisory Authority with regard to factoring in sustainability risks within risk management, and is placing an increasing focus on environmental, social and governance risk. Rentenbank has informed CICERO Green that they only finance wind projects that include local participation and that are not majority-owned by financial investors. As an example, the promotion of farmers placing a wind project on their private farmland is possible. Rentenbank relies on the commercial banks to identify and filter out potentially controversial projects before applying to Rentenbank for refinancing.

Management of proceeds

CICERO Green finds the management of proceeds of Rentenbank to be in accordance with the Green Bond Principles. Amounts equal to the net proceeds will be managed in a Green Bond portfolio approach. Upon issuance, the allocation of funds will be tracked in the allocation reporting by recording the number and total amount of all eligible green loans from the special Rural Energy promotional programme. Proceeds will not be earmarked nor put into a separate account, however Rentenbank will maintain a level of allocation for the Eligible Green Loan portfolio that matches or exceeds the balance of net proceeds from its outstanding green bonds. Upon issuance, Rentenbank will directly allocate an amount equal to the net proceeds of a Green Bond to a synoptical table used to track the allocation of funds from Rentenbank's green bond issuance

The unallocated balance will be disclosed in the allocation reporting. Rentenbank informed us that no large amounts of unallocated proceeds are expected and if net proceeds remain unallocated, they expect this to be for a fairly short period of time. Rentenbank may hold and/or invest the balance of net proceeds not yet allocated to the Eligible Green Loan portfolio in its treasury liquidity portfolio. The treasury liquidity portfolio invests in bonds issued by such banks and local authorities in Germany and other EU countries that are at least partially investing/supporting agriculture and/or rural areas. The treasury liquidity portfolio does not invest in corporate bonds at all.

In addition, green bonds can be increased (tapped). In terms of management of proceeds and reporting, a tap is treated like a new issuance. A tap is immediately fungible with the outstanding bond.

Reporting

Transparency, reporting, and verification of impacts are key to enable investors to follow the implementation of green finance programs. Procedures for reporting and disclosure of green finance investments are also vital to build confidence that green finance is contributing towards a sustainable and climate-friendly future, both among investors and in society.

The funding team within the Treasury Department is responsible for conducting reporting using data and input from other departments and from external providers. They will publish an annual Green Bond Investor Report with a regular cut-off date of 31 December, which will consist of both allocation reporting and impact reporting. The reporting will cover all Rentenbank green bonds and other potential green funding under the Eligible Green Loan portfolio and will be aggregated for all outstanding green bonds.

Due to the high number of projects, both allocation reporting and impact reporting will be prepared on a portfolio basis, with aggregated numbers for both sub-categories: solar energy and wind energy. Transmission and energy storage are considered as part of a complete project under these two sub-categories. Allocation reporting will be recorded in a synoptic table involving various metrics including usage - percentage of Eligible Green Loan portfolio allocated to net proceeds of green bonds, percentage of net proceeds of green bonds allocated to Eligible Green Loan portfolio, the total number and amount of eligible green loans, new loans in the Eligible Green Loan portfolio for the reporting year, and the total amount of green bonds outstanding.

Impact reporting will be fully aligned with the renewable energy section of ICMA's 2019 report on 'Harmonized Framework for Impact Reporting' and will cover total installed capacity of renewable energy (MW), annual renewable energy generation (GWh) and annual greenhouse gas emissions avoided (tCO_2e) (using grid emissions factors for Germany).

The investor report will be made available on Rentenbank's website. The impact report will be provided by an external party (ZSW) and there will be no external review on the allocation report.

3 Assessment of Rentenbank's green bond framework and policies

The framework and procedures for Rentenbank's green bond investments are assessed and their strengths and weaknesses are discussed in this section. The strengths of an investment framework with respect to environmental impact are areas where it clearly supports low-carbon projects; weaknesses are typically areas that are unclear or too general. Pitfalls are also raised in this section to note areas where Rentenbank should be aware of potential macro-level impacts of investment projects.

Overall shading

Based on the project category shadings detailed below, and consideration of environmental ambitions and governance structure reflected in Rentenbank's green bond framework, we rate the framework **CICERO Dark Green.**

Eligible projects under the Rentenbank's green bond framework

At the basic level, the selection of eligible project categories is the primary mechanism to ensure that projects deliver environmental benefits. Through selection of project categories with clear environmental benefits, green bonds aim to provide investors with certainty that their investments deliver environmental returns as well as financial returns. The Green Bonds Principles (GBP) state that the "overall environmental profile" of a project should be assessed and that the selection process should be "well defined".

Category	Eligible project types	Green Shading and some concerns
Renewable Energy	Production, storage & distribution of wind and solar energy (e.g., wind turbines, roof-mounted solar panels)	**Dark Green** ✓ Renewable energy, energy storage and corresponding transmission is a key component in the continued German low-carbon transition. ✓ We were informed that as a promotional bank Rentenbank does not consider the type of client when making project selection decisions. We note that, e.g., industrial meat producers would not be excluded. However, Rentenbank informed us that renewable energy projects that are not connected to the grid are exlcuded in Rentenbank's Rural Energy promotional programme as well as under this framework. ✓ While renewable energy is generally low-carbon, local environmental

	impacts such as on biodiversity and landscape, and lifecycle emissions from construction and operation can be of concern for these projects. ✓ Rentenbank plans to align on a "best-efforts basis" with the EU Taxonomy, which should include the threshold of 100gCO_2/kWh produced. ✓ Transmission is only applicable for connecting renewable energy arising from the wind and solar projects to the grid and will not include transmission of fossil fuel-generated power. ✓ Renewable energy generation, storage and transmission is an effective way to increase the flexibility and adaptability of the grid, but further efforts to promote smart technologies such as smart metering will also play a key role in achieving required levels of flexibility in the grid. ✓ Rentenbank has stated there are no size requirements for wind and solar power installations.

Table 1. Eligible project categories

Background

Germany's long-term emission development strategy, as defined in its Climate Action Plan 2050, aims to become "extensively greenhouse gas-neutral by 2050" and to cut GHG emissions by at least 55% by 2030 compared to 1990 levels and 80-95% by 2050.[1] At the same time, Germany is phasing out its nuclear power generation by 2022. Current emissions levels lie at 805 million tCO_2e, of which 246 million tCO_2e (30.5%) is in the energy industry and 62 million tCO_2e (7.7%) in agriculture.[2] According to the Climate Action Plan 2050, the German Energiewende (energy transition) is supposed to expand renewable energies in Germany and reduce the energy sector's emissions by 61-62% by 2030 compared to 1990. The Renewable Energy Sources Act reforms in 2014 and 2017 overhauled the renewable energy funding structure towards more competition and greater cost efficiency, as large capacity renewable energy sources are now required to compete to feed-in to the grid through a tendering process.[3] Rentenbank also works within agriculture, for which the Climate Action Plan 2050 aims to reduce emissions from agriculture by 31% from 1990 levels, through a significant reduction in nitrous oxide emissions from fertilizers and ensuring the achievement of the German Sustainable Development Strategy's target of 70kg nitrogen per hectare between 2028 and 2032. Meanwhile, the land use and forestry sector does not have specific

[1] https://www.bmu.de/en/topics/climate-energy/climate/national-climate-policy/greenhouse-gas-neutral-germany-2050/
[2] https://www.umweltbundesamt.de/sites/default/files/medien/384/bilder/dateien/en_indicator_klim-01_greenhouse-gas-emissions_2020-03-25.pdf
[3] https://www.iea.org/reports/germany-2020

targets but focuses on the preservation and improvement of the carbon sink performance of forests, as well as sustainable forest management and conservation of land ecosystems.

In 2019, global renewable electricity generation grew 7% and reached a quarter of global power output, due to the continued growth of solar PV and wind technologies accounting for 65% of this increase. Despite these positive trends (especially with PV), additional efforts are needed in renewable power generation to meet the targets set out in the IEA's SDS. According to the IEA, the share of renewables in global electricity generation must reach 47% by 2030, up from 25% in 2017.[4] According to the Fraunhofer Institute for Solar Energy Systems ISE., renewable electricity generation in Germany rose from 40.6% in 2018 to 46% in 2019, and for the first time surpassed the share of fossil fuels, which declined by 14% in the same period.[5] Wind saw the largest growth of 15.7% to a total generation of 127 TWh in 2019. At the same time, the number of new onshore wind installations declined rapidly and by the end of 2019, only 660 MW of new capacity had gone online. There is imbalance in wind and solar capacity – in order to have an optimal balance, solar power needed an additional 15 GW of capacity by the end of 2019. Energy consumption in Germany in 2019 has decreased by 11.3% since 2005 and in 2019 consisted of 59.6% oil and natural gas, 18% coal and lignite, 14.5% renewables, and 6% nuclear.[6] Wind turbines and solar photovoltaic cells can be energy-intensive to produce, so in addition to assessing the metrics for increasing renewable generation capacity and avoided greenhouse gas emissions, CICERO Green places importance on life-cycle assessments and supply chain in the provision of renewable energy.

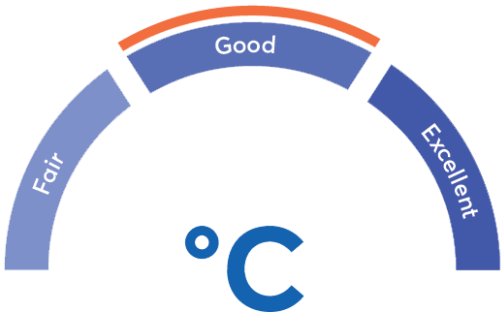
Governance Assessment

Four aspects are studied when assessing Rentenbank's governance procedures: 1) the policies and goals of relevance to the green bond framework; 2) the selection process used to identify eligible projects under the framework; 3) the management of proceeds; and 4) the reporting on the projects to investors. Based on these aspects, an overall grading is given on governance strength falling into one of three classes: Fair, Good or Excellent. Please note this is not a substitute for a full evaluation of the governance of the issuing institution, and does not cover, e.g., corruption.

Rentenbank has demonstrated clear intent towards promoting sustainability and aligning with climate goals but is only at the beginning stages of measuring and reporting on climate goals and climate risk. We note that Rentenbank does not yet align with the TCFD recommendations. The framework is well-aligned with the Green Bond Principles and demonstrates a sound management of proceeds and selection process, although Rentenbank does rely on intermediaries for screening of controversial projects and conducting LCAs and supply chain analysis. The selection criteria in the framework are clear and Rentenbank has committed to incorporating recommendations from the EU Taxonomy on a "best-efforts basis". Additionally, decisions are consensus-based. Reporting on allocation and impact is done on a portfolio basis, along relevant and key metrics, and the impact reporting will be externally provided by ZSW.

[4] https://www.iea.org/topics/tracking-clean-energy-progress
[5] https://www.ise.fraunhofer.de/en/press-media/news/2019/Public-net-electricity-generation-in-germany-2019.html
[6] https://www.statista.com/statistics/583158/energy-consumption-by-source-germany/

The overall assessment of Rentenbank's governance structure and processes gives it a rating of **Good**. The governance would benefit from more rigorous targets, incorporating construction and supply chain emissions considerations, as well as conducting its own climate resilience assessments and life-cycle analyses.



EU Taxonomy

In 2020, the EU Taxonomy was released in a multi-lateral effort to standardise thresholds and metrics to aid the transition. The Taxonomy provides signposting for investors and bond issuers to aid in their decision-making and project selection processes. The relevant thresholds in the EU Taxonomy for Rentenbank's eligible project categories are limited to the Renewable Energy category. This states that "any electricity generation technology can be included in the taxonomy if it can be demonstrated, using an ISO 14067 or a GHG Protocol Product Lifecycle Standard-compliant Product Carbon Footprint (PCF) assessment, that the life-cycle impacts for producing 1 kWh of electricity are below the declining threshold." This declining threshold is determined as: "facilities operating at life-cycle emissions lower than 100gCO_2e/kWh, declining to 0gCO_2e/kWh by 2050, are eligible." Currently, both solar PV and wind power are derogated from GHG or PCF life-cycle assessments, subject to regular review in accordance with the declining threshold.

The EU Taxonomy also considers Do No Significant Harm criteria within six categories (which may or may not always all be relevant): climate change adaptation, water, circular economy, pollution and ecosystems. Specifically for solar PV and wind, considerations include ensuring climate resilience and no additional adverse impacts on the climate; ensuring PV panels and wind turbines are designed and manufactured for durability and easy maintenance and reparability; managing risks related to water quality and consumption; ensuring the completion of an Environmental Impact Assessment in accordance with appropriate standards, especially if located on biodiversity-sensitive areas, as well as implementing a robust biodiversity monitoring and evaluation programme.

Rentenbank's projects will likely align with the EU Taxonomy, however, they are only planning to incorporate these thresholds on a "best-efforts basis" and the existing requirement is simply that eligible projects "make a positive contribution to the objective of climate change mitigation." It will be important that Rentenbank, in addition to incorporating the thresholds from the EU taxonomy, also ensures that all 'Do No Significant Harm' recommendations from the EU Taxonomy for both wind and solar PV are followed.

Strengths

The eligible project category is clearly defined and most likely will align with the EU Taxonomy. This promotes transparency and consistency in the project selection process. Additionally, the metrics reported are along key metrics identified by the ICMA Harmonized Framework for Impact Reporting, which provides a clear methodology for reporting and helps in collecting consistent data. The impact report will also be externally provided by ZSW.

It is a strength that Rentenbank only provides financing to projects that are not majority-owned by investors, but rather by local landowners, as this ensures greater accountability and active ownership of the project.

Weaknesses

CICERO Green finds no material weaknesses in Rentenbank's framework.

Pitfalls

It is a pitfall that Rentenbank itself does not conduct life-cycle assessments and supply chain analysis. Rentenbank does not include considerations for climate resilience and does not conduct climate risk reporting or scenario analysis. Rentenbank has only committed to aligning on a "best-efforts basis" with the EU Taxonomy, as opposed to a commitment to full alignment. The only requirement to date is that the projects "make a positive contribution to the objective of climate change mitigation", where "positive" does not reflect the degree of ambition required.

Rentenbank currently does not impose further regulations than those provided by national and local laws and regulations, which may reduce the ambition of the projects Rentenbank finances. This may include regulations, e.g., on biodiversity loss, for example, where old-growth native forest covers are removed to make room for projects. In order to promote greater stringency and compliance with environmental targets, Rentenbank may consider supplementing these with additional standards in the various areas of its operation (e.g., renewable energy and forestry).

While CICERO Green understands it may not be practical for Rentenbank to set targets for themselves given the fluctuating conditions provided by the Renewable Energy Sources Act and uptake by the intermediaries, Rentenbank may consider setting climate targets to provide a more targeted approach towards their financing of renewable projects. Especially as a promotional bank, setting a target for financing climate relevant activities may increase ambition over time.

There is a risk that renewable generation will stall before 2030, if measures to improve grid flexibility and expand the grid are not concurrently prioritised[7]. Rentenbank includes energy storage in its eligible project categories, and this is a key aspect in promoting flexibility, however, Rentenbank may also consider adding further technologies such as smart metering to the framework in the future to ensure an even more balanced approach.

We note that Rentenbank does not discriminate between their clients and could, e.g., support industrial meat producers. However, Rentenbank informed us that renewable energy projects that are not connected to the grid are exlcuded in Rentenbank's Rural Energy promotional programme as well as under this framework.

There is a risk that the equipment financed under this framework could be involved in controversial projects, such as wind farms. Screening for controversial projects will be conduct by local commercial banks.

[7] https://www.cleanenergywire.org/dossiers/energy-transition-and-germanys-power-grid

Appendix 1:
Referenced Documents List

Document Number	Document Name	Description
1	Rentenbank Green Bond Framework. June 2020	Rentenbank's green bond framework
2	Voluntary non-financial report, 2019 https://www.rentenbank.de/en/documents/publications/Nonfinancial-Report-2019.pdf	Report from the Management board on the 2019 fiscal year. Includes
3	Annual Report 2019 https://www.rentenbank.de/en/documents/publications/Annual-Report-2019.pdf	Annual report for Rentenbank 2019.
4	Rentenbank Sustainability https://www.rentenbank.de/dokumente/Merkblatt-Nachhaltige-Investitionen_2020.pdf	Sustainability document for Rentenbank including detailed list of eligible sustainability projects.
5	Germany's Development Agency for Agribusiness presentation https://www.rentenbank.de/en/documents/Presentation_2020_02_17_en.pdf	Information on promotional mandate, breakdown of total funding volume, green bond funding volume.
6	ICMA Harmonized Framework for Impact Reporting Handbook. June 2019 https://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/June-2019/Handbook-Harmonized-Framework-for-Impact-Reporting-WEB-100619.pdf	Handbook of Harmonized Framework for Impact Reporting
7	Evaluation of greenhouse gas emissions avoided in the year 2019 attributable to the portfolio of wind energy and photovoltaic installations financed by Landwirtschaftliche Rentenbank, May 2020	ZSW's study commissioned by Rentenbank to evaluate the impact of Rentenbank's portfolio
8	Green Bond Investor Report, December 2019	Rentenbank's green bond report to investors 2019

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Appendix 2:
About CICERO Shades of Green

CICERO Green is a subsidiary of the climate research institute CICERO. CICERO is Norway's foremost institute for interdisciplinary climate research. We deliver new insight that helps solve the climate challenge and strengthen international cooperation. CICERO has garnered attention for its work on the effects of manmade emissions on the climate and has played an active role in the UN's IPCC since 1995. CICERO staff provide quality control and methodological development for CICERO Green.

CICERO Green provides second opinions on institutions' frameworks and guidance for assessing and selecting eligible projects for green bond investments. CICERO Green is internationally recognized as a leading provider of independent reviews of green bonds, since the market's inception in 2008. CICERO Green is independent of the entity issuing the bond, its directors, senior management and advisers, and is remunerated in a way that prevents any conflicts of interests arising as a result of the fee structure. CICERO Green operates independently from the financial sector and other stakeholders to preserve the unbiased nature and high quality of second opinions.

We work with both international and domestic issuers, drawing on the global expertise of the Expert Network on Second Opinions (ENSO). Led by CICERO Green, ENSO contributes expertise to the second opinions, and is comprised of a network of trusted, independent research institutions and reputable experts on climate change and other environmental issues, including the Basque Center for Climate Change (BC3), the Stockholm Environment Institute, the Institute of Energy, Environment and Economy at Tsinghua University and the International Institute for Sustainable Development (IISD).