

Green Evaluation

DZ BANK AG €250 Million Fixed-Rate Preferred Senior Notes

Transaction Overview

DZ BANK AG Deutsche Zentral-Genossenschaftsbank, Frankfurt am Main (DZ BANK) has issued €250 million of fixed-rate preferred senior notes due October 2023 as part of its ongoing debt issuance program (ISIN Code: DE000DDA0NB1). The issuance represents DZ BANK's first labelled green bond.

DZ BANK has allocated the issuance proceeds to a portfolio of loans originated for operational onshore wind power projects in Germany. The portfolio currently consists of 60 projects across 11 different federal states with a total installed capacity of about 738 megawatts (MW). DZ BANK's total credit exposure to the portfolio is currently about €433 million by way of non-recourse project finance loans to these projects. In 2017 the portfolio avoided greenhouse gas emissions amounting to the equivalent of about 790,000 tons of CO₂, as estimated by DZ BANK based on emissions factors published by the German Environment Agency. In our opinion, this transaction is aligned with the Green Bond Principles 2018 (GBP).

Entity:	DZ BANK AG Deutsche Zentral-Genossenschaftsbank, Frankfurt am Main
Subsector:	Renewable Electricity
Location (HQ):	Germany
Financing value:	€250 million
Amount evaluated:	100%
Evaluation date:	Oct. 2, 2018
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Green Evaluation Overview

Transaction's Transparency

- Use of proceeds reporting
- Reporting comprehensiveness

84

Transaction's Governance

- Management of proceeds
- Impact assessment structure

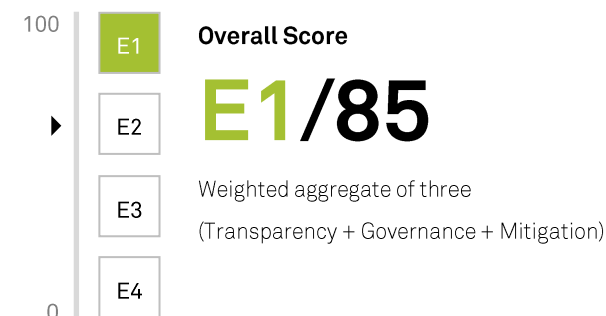
78

Mitigation

Sector	→ Net Benefit Ranking	→ Hierarchy Adjustments	
Renewable Electricity	Onshore Wind Power	Carbon	87

Adaptation

NA



Project Description

DZ BANK has allocated the issuance proceeds to a portfolio of project-financed onshore wind power plants. The existing project finance loans will remain in place following the note issuance. The net cash proceeds from the notes will therefore support DZ BANK's general corporate cash and treasury operations. By allocating (tagging) the specific project finance loans (or portions thereof) to the issuance, those loan assets are no longer available for allocation towards other bonds that DZ BANK may issue in the future, thereby avoiding the potential for double-counting their associated environmental benefit. Consequently, DZ BANK would need to originate new qualifying loans or allocate other loans on its balance sheet before any further green bond issuance, thereby supporting the overall growth of sustainable finance in its portfolio.

DZ BANK is an experienced lender to German onshore wind projects, having been involved in the sector since the early 1990s. The bank's loan portfolio currently includes about 440 wind power plants. The plants in the portfolio for this transaction were commissioned between 2010 and 2017, giving them a weighted average age of about four years. Their installed capacity ranges from 3.0 MW to about 39.6 MW, with an average installed capacity of about 12.3 MW. The plants will primarily benefit from feed-in tariffs enabled by Germany's renewable energy law, first enacted in the early 1990s (and subsequently amended) to promote climate change mitigation. Feed-in tariffs generally provide for a comparatively high degree of revenue stability, all other things equal.

The turbine technology installed at the plants includes leading suppliers Enercon (49% of total installed capacity), Vestas (25%), Nordex (11%), General Electric (10%), and Senvion (6%). In 2017 the portfolio generated about 1,600 gigawatt hours (GWh) of renewable electricity, which implies a load (capacity) factor of about 25%. The load factor is higher than in many other older German onshore wind portfolios, reflecting the state-of-the-art technology employed at these relatively young plants.

DZ BANK's project finance loans to the underlying plants will be repaid over time as set out in the amortization schedules of their respective financing documentation. Absent any prepayments, defaults, or other restructuring measures, we expect DZ BANK's loan exposure to the portfolio to reduce to about €260 million by the notes' final repayment date in October 2023. Consequently, we expect DZ BANK's credit exposure to the portfolio to exceed the outstanding amount of the notes until their final repayment, absent other developments.

If its credit exposure to the loan portfolio does drop below €250 million (which we currently do not expect will happen), DZ BANK will add additional German onshore wind project finance loans to the asset pool to which the notes are allocated. If there aren't enough of these loans to add to the portfolio, DZ BANK will add green bonds to the asset pool. This is to ensure that its tagged credit exposure to which the notes are allocated always exceeds the outstanding amount of the notes.

Scoring Summary

This transaction achieves an overall Green Evaluation score of E1 on our scale of E1 (highest) to E4 (lowest) and an overall score of 85. The overall score is a weighted average of Mitigation (60% weight), Governance (25%), and Transparency (15%).

The strong Mitigation score of 87 reflects the significant positive environmental impact of the underlying wind power plants. We assess Germany's grid carbon intensity as "medium-high," and we expect onshore wind to play a vital role in its systemic decarbonization.

The robust Governance score (78) and strong Transparency score (84) are supported by the green bond framework in place that governs use of proceeds and regular reporting.

Rationale

- We consider onshore wind power to be a long-term sustainable energy solution that is critical to climate change mitigation and therefore place it towards the top of our carbon hierarchy. The electricity the wind power plants generate displaces more polluting nonrenewable electricity. This is particularly true in Germany, which still relies heavily on coal-fired generation.
- DZ BANK's board of directors has established a governance process involving a green bond steering committee responsible for evaluating, selecting, and monitoring the portfolio of assets and reporting on its contribution towards sustainable development.
- The issuance documentation contains a use of proceeds clause with defined selection criteria and a process used to determine whether loans or bonds are eligible for inclusion in the asset pool against which the notes are allocated.
- DZ BANK has committed to report annually on how the note proceeds are being used and on the portfolio's environmental impact following a comprehensive predetermined reporting template. This will include quantification and disclosure of estimated avoided emissions. These estimates are based on emissions factors published by the German Environment Agency and therefore very transparent regarding the underlying methodology employed to determine those estimates.

Key Strengths And Weaknesses

We expect the renewable electricity generated by the portfolio of wind power plants to have significant positive environmental impacts by way of avoided greenhouse gas emissions, contributing to the systemic decarbonization of the economy. We view positively that the estimate of avoided emissions included in DZ BANK's reporting is based on publicly available emissions factors, which enhances transparency and comparability.

We also positively assess the specific requirements set out in the use of proceeds clause in the issuance documentation. DZ BANK will monitor the allocation of net proceeds to the green asset pool through its internal information systems. Although the framework does not specify a legally segregated account, we believe the tracking mechanism effectively matches the green proceeds to green assets, ensuring the proceeds are always used for green purposes. Accordingly, we view favorably DZ BANK's intention to track and make sure green proceeds are fully disbursed/matched against eligible green assets.

Finally, we note that DZ BANK currently does not intend to commission independent third-party verification of the allocation of proceeds or of the avoided greenhouse gas emissions. The associated risks are partially mitigated by the bank setting up an internal process, including the establishment of a green bond steering committee tasked by the bank's board of directors with evaluating and reviewing the underlying portfolio. Given the selection criteria in DZ BANK's green bond framework, the steering committee may only select loan assets for inclusion in the green asset pool if they relate to German onshore wind energy generation.

Second Opinion On GBP Alignment

Based on a Governance score of 78 and a Transparency score of 84, and that 100% of proceeds will be allocated to green projects, we expect the notes to meet the basics of the four pillars of the voluntary GBP given the issuer has committed to:

- Allocating the full amount of the net proceeds of bonds to eligible green projects – as defined by the issuer,
- Using clear “green” criteria (as defined by the issuer) to select projects for funding,
- Managing and tracking proceeds, and
- Committing to regular reporting of environmental impact and use of proceeds.

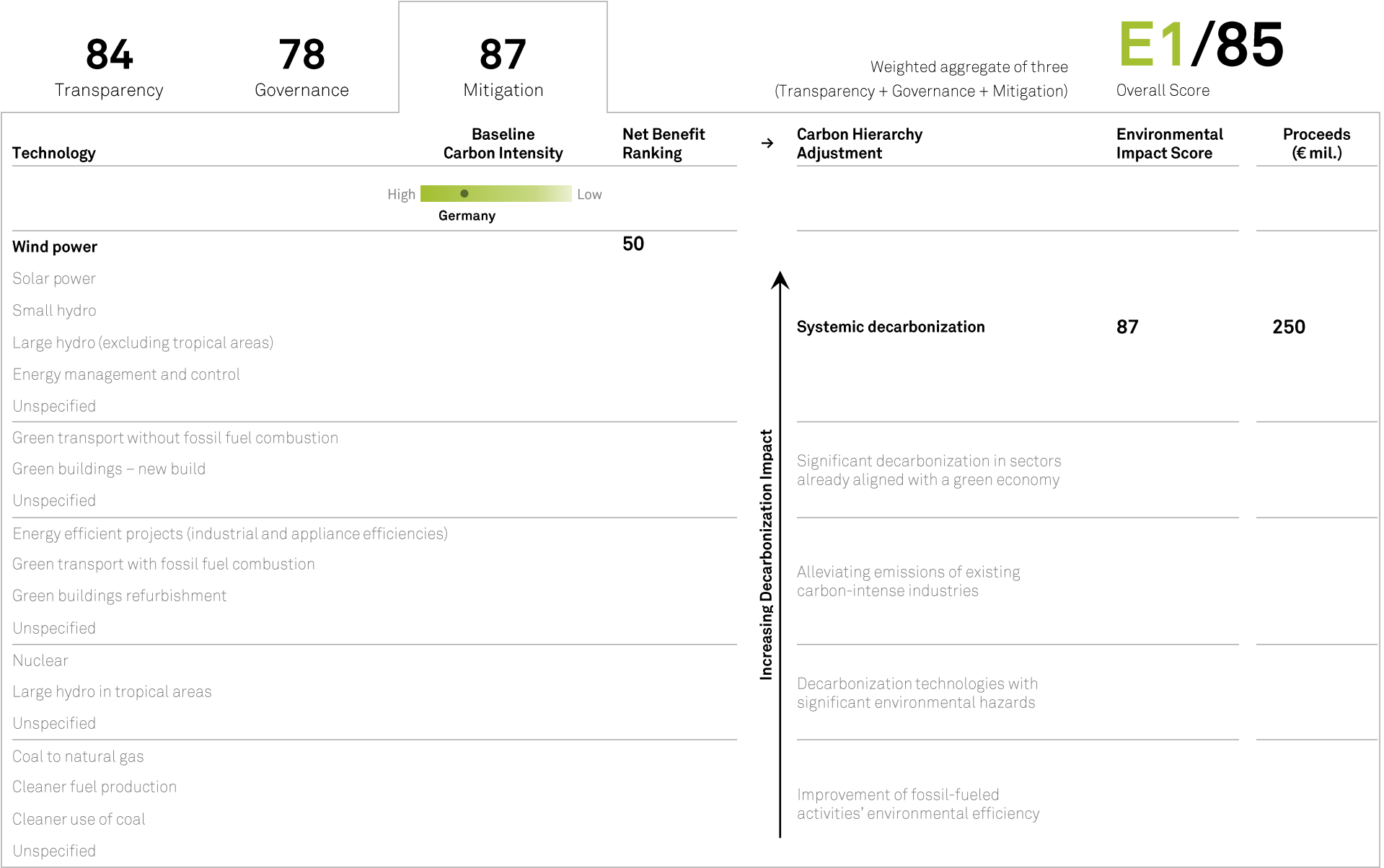
A Green Evaluation is a point in time assessment and is not monitored.

Sector level scores

Sector	Location	Technology	Use of Proceeds (€ mil.)	Use of Proceeds treatment	Net Benefit Ranking
Renewable Energy	Germany	Onshore Wind Power	250	Actual	50
			250		

Carbon

Green Evaluation Process

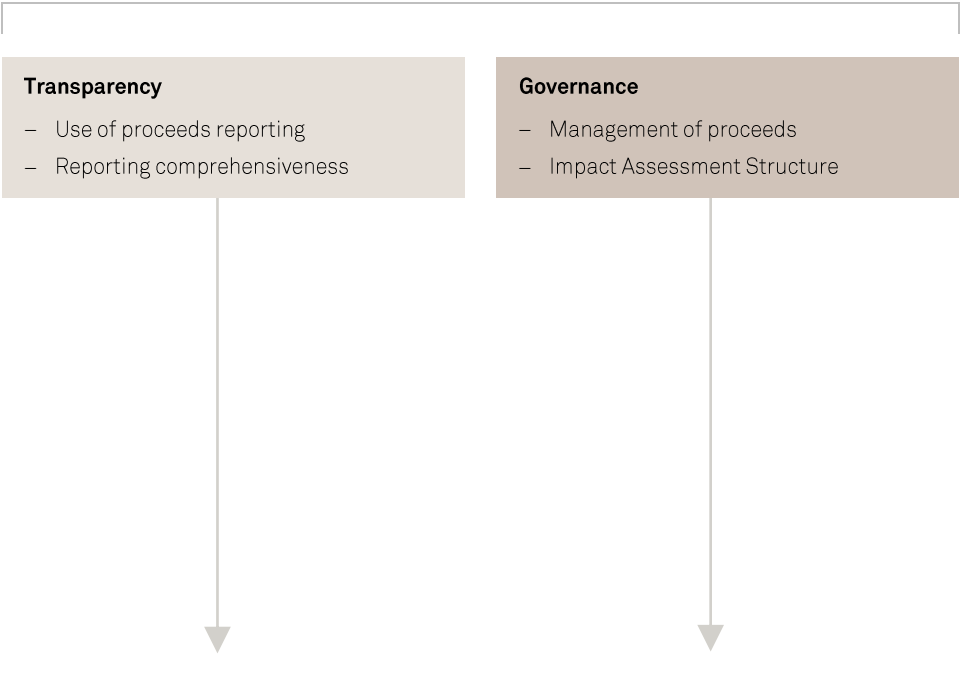


Our Green Evaluation Approach

Weighted aggregate of three:



Common approach used amongst opinion providers



Unique to S&P Global Ratings



eKPI – Environmental Key Performance Indicator

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