

ISS-oekom>

SECOND PARTY OPINION (SPO)

Sustainability Quality of the Issuer and Green Bond Asset Pool

Energie Baden-Württemberg AG (EnBW) 22 July 2019



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Overall Evaluation of the Green Bond

EnBW commissioned ISS-oekom to assist with its Green Bond/Programme by assessing three core elements to determine the sustainability quality of the Bond:

- 1. EnBW's Green Bond framework benchmarked against the International Capital Market Association's (ICMA) Green Bond Principles (GBPs).
- 2. The asset pool whether the projects aligned with ISS-oekom's issue-specific key performance indicators (KPIs) (See Annex 2).
- 3. EnBW's sustainability performance, according to the ISS-oekom Corporate Rating.

ISS-oekom ASSESSMENT SUMMARY

SPO SECTION	SUMMARY	
Part 1: Performance against the GBPs	The issuer has defined a formal concept for its Green Bonds regarding use of proceeds, processes for project evaluation and selection, management of proceeds and reporting. This concept is in line with the ICMA GBPs.	Positive
Part 2: Sustainability quality of the asset pool	The overall sustainability quality of the asset pool in terms of sustainability benefits, risk avoidance and minimisation is good based upon the ISS-oekom Green Bond KPIs. The Green Bond KPIs contain a clear description of eligible asset categories which include onshore and offshore wind power plants and solar energy. All assets of the asset pool are located in highly regulated and developed countries. Legislative frameworks in those countries set minimum standards, which reduce environmental and social risks.	Positive
Part 3: Issuer sustainability performance	The issuer itself shows a good sustainability performance and has been classified as 'Prime' within the methodology of the ISS-oekom Corporate Rating. It is rated 3 rd out of 44 companies within its sector as of 21.12.2018.	Status: Prime Rating: B- Prime threshold:
		В-

¹ The ISS-oekom's present evaluation will remain valid until any modification of the Green Bond Framework or addition of new assets into the asset pool by the issuer and as long as the issuer's Corporate Rating does not change (last modification on the 21.12.2018). The controversy check of the underlying assets has been conducted on the 17.07.2019.



Contribution of the Green Bond to the UN SDGs

Based on the assessment of the sustainability quality of the green bond asset pool and using a proprietary methodology, ISS-oekom assessed the contribution of the EnBW's green bond to the Sustainable Development Goals defined by the United Nations (UN SDGs).

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

Significant	Limited	No	Limited	Significant
Obstruction	Obstruction	Net Impact	Contribution	Contribution

Each of the green bond's Use of Proceeds categories has been assessed for its contribution to, or obstruction of, the SDGs:

USE OF PROCEEDS CATEGORY	CONTRIBUTION OR OBSTRUCTION	SUSTAINABLE DEVELOPMENT GOALS	
Offshore wind power plants	Significant contribution	7 AFFORMABLE AND CLIMATE CLIMATE CLIMATE CLIMATE	
Onshore wind power plants	Significant contribution	7 AFFORDABLE AND CLEAN DIRRY 13 CHINATE CLEAN DIRRY	
Solar PV	Significant contribution	7 AFFORMALE AND CLEME BERRY 13 CLIMATE	

The issuer's green bond significantly contributes to SDGs 7 and 13 thanks to its Use of Proceeds categories promoting wind power (offshore and onshore) and solar PV.



ISS-oekom SPO ASSESSMENT

PART I: GREEN BOND PRINCIPLES

1. Use of Proceeds

The net proceeds of Green Financing instruments will be used to finance or refinance in whole or in part any Eligible Green Projects as defined below and may include new projects with disbursements after the issuance of the Green Financing instrument or existing projects with commercial operation starting not earlier than 36 months before the issuance date of the respective instrument. Disbursements to be financed include operating expenditures (Opex), capital expenditures (Capex), expenditures related to research and development as well as expenditures for acquisitions of Eligible Green Projects.

Eligible Green Projects include projects or assets in the following eligible categories:

Renewable energy projects:

- Onshore wind energy generation
- Offshore wind energy generation
- Solar (photovoltaic) energy generation

Energy efficiency projects:

Smart meters

Clean transportation projects:

• E-mobility infrastructure (charging stations)

ASSET CATEGORY	INCLUDED IN GREEN BOND PORTFOLIO	SHARE OF ASSET POOL
1. Renewable energy	✓ Yes	100%
1.1 Onshore wind energy generation	✓ Yes	0-20%
1.2 Offshore wind energy generation	✓ Yes	80-100%
1.3 Solar (photovoltaic) energy generation	✓ Yes	0-20%
2. Energy efficiency	⊁ No	0%
2.1 Smart meters	× No	0%
3. Clean transportation	× No	0%
3.1 E-mobility infrastructure (charging stations)	× No	0%

Opinion: ISS-oekom considers the Use of Proceeds description provided by EnBW as aligned with the GBPs. The project categories are aligned with the Use of Proceeds suggested by the GBPs and the sustainability strategy of EnBW. Furthermore, the distribution of proceeds by project category is disclosed: the contemplated green bond issuance will be used for (re-) financing wind and/or solar assets.

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2. Process for Project Evaluation and Selection

To ensure a diligent project evaluation and selection process, EnBW has set up a two-step approach:

- The capex intensive growth projects of EnBW are aligned with EnBW's sustainability approach as well as national and international environmental and social standards.
- To ensure eligibility for green financing, EnBW has set up a Green Financing Committee with representatives from the corporate finance department, the corporate sustainability department, and on case by case basis, with representatives from business units. Projects to be allocated with proceeds from Green Financing can be submitted by the business units or be chosen by the Green Financing Committee directly. The final decision on the selection of Eligible Green Projects can only be taken unanimously.

The Committee is responsible for verifying compliance of all projects with the eligibility criteria. Typical exclusion filters include but are not limited to material controversies, major concerns about impact on environment. In addition, selection criteria have been defined for prioritising projects. It will be examined whether the projects contribute to the following criteria:

1. Non-financial key performance indicators and targets of EnBW:

- Expand renewable energies (RE) Installed output of RE in GW and the share of the generation Capacity accounted for by RE in %;
- Climate protection CO₂ intensity in g / kWh
- Customer proximity EnBW Customer Satisfaction Index
- Reputation Reputation Index

2. Relevant Sustainable Development Goals (SDGs) for EnBW:

- SDG 7: Ensure access to affordable, reliable, sustainable and modern energy
- SDG 9: Build resilient infrastructure, further sustainable industrialization, foster innovation
- SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable
- SDG 13: Take immediate action to combat climate change and its impacts.

3. Relevant GRI-topics and –disclosures for EnBW:

Chosen GRI-topics and -disclosures in combination with environmental and economic aspects (GRI 203, 304, 305) as well as issues related to the supply chain (GRI 414).

The Green Financing Committee will select among the pool of eligible projects, the ones that contribute the most to the above indicators and will document the project assessment process.

In order to guarantee only the issuer's share of a project is financed, the maximum green financing proceeds to be allocated to a single eligible project are calculated as follows:

(Total asset capex² – associated project external debt) x percentage of EnBW Group's ownership

Opinion: ISS-oekom finds that the Project Evaluation and Selection is in line with the GBPs. Transparent eligibility criteria have been defined at the project category level and are publicly disclosed. The process for selection of projects is structured and defines responsibilities across a wide range of departments.

² In case of eligible projects owned by subsidiaries having their own external debt, a pro-rata calculation will be conducted to get estimates of external debt associated to that project.



3. Management of Proceeds

EnBW has set up a register and has put internal systems in place to track the outstanding proceeds of Green Financing instruments internally. This allows for comprehensive monitoring of allocated and to be allocated amounts.

Prior to issuance of each Green Financing Instrument, EnBW will disclose which projects are to be refinanced, and to what extent proceeds are to finance future investments.

EnBW intends to fully allocate the proceeds within 24 months after the issuance date of each Green Financing instrument.

Until full allocation, the Green Financing Committee will approve at least semi-annually the amount of net proceeds that has been allocated to Eligible Green Projects.

Net proceeds of Green Financing instruments will be allocated in different ways:

- a) Refinancing of operational projects that qualify as Eligible Green Projects
- b) Investments into projects under development that qualify as Eligible Green Projects.
- c) Unallocated proceeds: Investments in any form of cash, bank deposit or other form of available current financial assets.

To ensure the maximum transparency and prevent double-counting, the following describes general guidelines on how allocation of funds is to be done:

- The proceeds of each of the Green Financing instruments can be allocated to one or several Eligible Green Projects within the EnBW Group. EnBW will ensure, through the implementation of a control system, that all proceeds and flows are tracked thoroughly inside EnBW to ensure transparency.
- In case the above stated prerequisite is not fulfilled due to changed conditions, such as changes in ownership or capital structure EnBW is obliged to reallocate the resulting excess proceeds to other Eligible Green Projects. These changes would be tracked and included in reporting.
- In case a project or asset where proceeds of green financing have been allocated no longer meets the eligible criteria, EnBW is committed to re-allocate proceeds into alternative Eligible Green Projects.
- In case an asset with proceeds from green financing has reached the end of its lifetime and has been fully decommissioned proceeds will be re-allocated to other Eligible Green Projects. These changes would be tracked and included in reporting.
- In case a project with allocated proceeds has been stopped or abandoned, EnBW is committed to re-allocate the funds to other Eligible Green Projects. These changes would be tracked and included in reporting.

To facilitate the tracking process and to increase transparency and investor comfort, EnBW can select investments fully or largely disbursed when selecting Eligible Green Projects.

Opinion: ISS-oekom finds that the management of proceeds is aligned with the GBPs. The proceeds are adequately earmarked, and the framework discloses the intended types of temporary investments for unallocated proceeds and the procedure in case of divestment of the investments.



4. Reporting

Green Finance standards encourage reporting on both the use of Green Financing proceeds and the expected environmental impacts at least on an annual basis with the first reporting published within a year after the launch of the Green Financing instrument.

EnBW seeks to provide data on each Green Financing project on an individual basis but might also choose to aggregate certain classes of projects. EnBW is committed to report annually and publish a separate EnBW Green Bond Impact Report next to its regular Integrated Annual Report, and until the maturity date on:

A) Use of the Green Financing proceeds

a) List of projects with some individual information.

b) Total funds allocation (with breakdown per type of project and breakdown of the allocation of proceeds between new financing and refinancing).

c) The amount of unallocated proceeds

B) Benefits in terms of sustainability

The company will publish annually a set of reporting indicators to describe the achieved benefits in terms of sustainability. The type of indicators will depend on the type of asset or activity financed by green instrument. The charts below include a description of the reporting indicators per asset category.

Type of Project	Benefits	Reporting indicators	
Renewable energy projects	Climate Change Mitigation (generation)	 Per Project: Name Type of project Country Installed capacity (MW) [attributable to the financing instrument] For each category: Invested capital attributable to the financing instrument [Expected] Annual energy produced (MWh per year) attributable to the financing instrument [Expected] Annual GHG emissions avoided (CO₂ in t) attributable to the financing instrument 	

Type of Project	Benefits	Reporting indicators		
Energy efficiency projects	Climate Change mitigation/ Security of Supply	 For each category: Type of project Country Physical indicator i.e. Smart meters (total and attributable number) Invested capital attributable to the financing instrument 		



Type of Project	Benefits	Reporting indicators	
Clean transportation projects	Climate Change mitigation	 For each category Type of project Country/location Physical indicator, i.e. number of charging stations, number of charging procedures (total and attributable number) Invested capital attributable to the financing instrument 	

Table 1: reporting indicators per asset category

Furthermore, EnBW intends to report with regard to qualitative impacts. For example:

- mitigation of negative impact (e.g. biodiversity, noise level)
- management of social aspects of projects (e.g. human rights impacts/ working and living conditions)

C) Assurance of compliance of selected projects with the Framework for Green Financing

EnBW will annually assess the compliance with this Framework, including a description of material exceptions, controversies, and mitigating action.

EnBW is committed to report annually and publish a separate EnBW Green Bond Impact Report next to its regular Integrated Annual Report.

Opinion: ISS-oekom finds that reporting is aligned with the GBPs. The level, content, frequency, scope and duration of the allocation reporting is transparent and aligned with market best practices.

External review

The Green Financing issuance of EnBW is backed by two layers of external reviews to ensure maximum transparency and certainty for investors.

A) Layer one – Second Party Opinion

Prior to an issuance, EnBW commissioned ISS-oekom to obtain an external review of its Green Financing Framework. ISS-oekom will issue a second opinion confirming the alignment of EnBW's Green Financing Framework with the Green Bond and Green Loan Principles and the framework's strong environmental credentials. Under this framework, the issuance of multiple Green Financing Instruments is possible. Prior to issuance of each instrument, EnBW will disclose for which projects or assets proceeds are to be used.

B) Layer two – Verification

EnBW received a pre-issuance certification by the CBI and intends to receive a post-issuance certification by the CBI. In case a reallocation of proceeds will be necessary, EnBW will request an additional external review.

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PART II: SUSTAINABILITY QUALITY OF THE GREEN BOND ASSET POOL

Wind (offshore and onshore)

As Use of Proceeds categories, offshore and onshore wind have significant contributions to SDGs 7 "Affordable and clean energy" and 13 "Climate action". Additionally, when considering the deeper ESG management, offshore and onshore wind can be associated to other SDGs. The table below presents the findings of an ISS-oekom assessment of the assets (re-) financed against KPIs and the association with SDGs based on a mapping methodology.

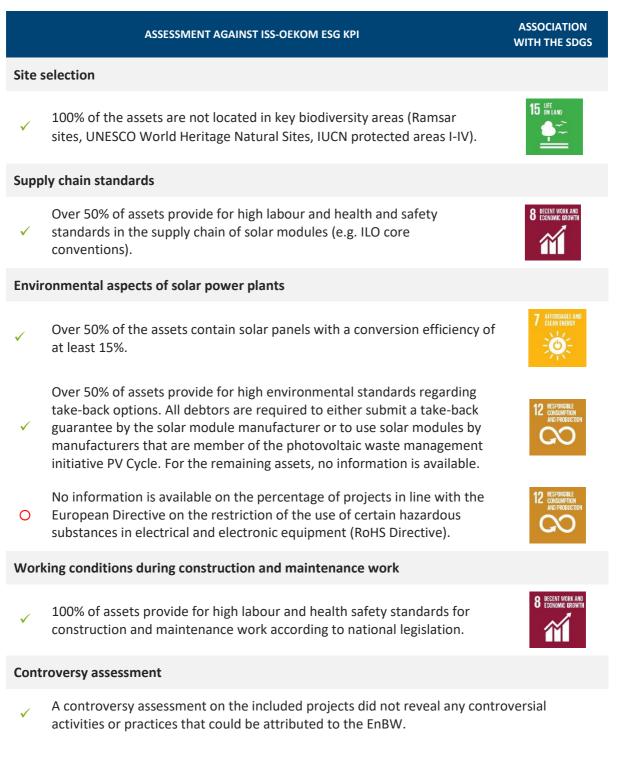


A controversy assessment on the included projects did not reveal any controversial activities or practices that could be attributed to EnBW.



Solar PV

As a Use of Proceeds category, solar power has a significant contribution to SDGs 7 "Affordable and clean energy" and 13 "Climate action". Additionally, when considering the deeper ESG management, solar power can be associated to other SDGs. The table below presents the findings of an ISS-oekom assessment of the assets (re-) financed against KPIs and the association with SDGs based on a mapping methodology.



The methodology for the asset evaluation can be found in Annex 2.



PART III: ASSESSMENT OF EnBW'S ESG PERFORMANCE

The ISS-oekom Corporate Rating comprises a rating scale from A+ (excellent) to D- (poor).

C Ο Μ Ρ Α Ν Υ	RATING	STATUS
EnBW	B -	PRIME

This means that the company performed well in terms of sustainability, both compared against others in the industry and in terms of the industry-specific requirements defined by ISS-oekom. In ISS-oekom's view, the securities issued by the company therefore all meet the basic requirements for sustainable investments.

As of 21.12.2018, this rating places EnBW 3rd out of 44 companies rated by ISS-oekom in the Utilities / Multi-Utilities sector.

Key Challenges facing companies in term of sustainability management in this sector are:

- Facilitation of the energy transition and resource efficiency
- Environmentally safe operation of plants and infrastructure
- Accessibility and reliability of energy and water supply
- Business ethics and government relations
- Worker safety and accident prevention

In all of these key issues, EnBW performs above the average for the sector:

 A very significant outperformance was achieved in "Accessibility and reliability of energy and water supply

The company has a moderate controversy level:

- Electricity and energy generation from fossil fuel and nuclear sources are responsible for the moderate controversy faced by EnBW.
- In comparison to the sector, EnBW's controversy level is comparatively low.

Details on the rating of the issuer can be found in Annex 1

Robert Hassler, Head of ISS-oekom London/Munich/Rockville/Zurich



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- 1. Validity of the SPO: For EnBW's first issuance following the SPO release date.
- 2. ISS-oekom uses a scientifically based rating concept to analyse and evaluate the environmental and social performance of companies and countries. In doing so, we adhere to the highest quality standards which are customary in responsibility research worldwide. In addition, we create a Second Party Opinion (SPO) on bonds based on data from the issuer.
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ANNEX 1: ISS-oekom Corporate Rating

The following pages contain extracts from EnBW'S latest ISS-oekom Corporate Rating.











ANNEX 2: Methodology

ISS-oekom Green Bond KPIs

The ISS-oekom Green Bond KPIs serves as a structure for evaluating the sustainability quality – i.e. the social and environmental added value – of the use of proceeds of EnBW's Green Bond Programme.

It comprises firstly the definition of the use of proceeds category offering added social and/or environmental value, and secondly the specific sustainability criteria by means of which this added value and therefore the sustainability performance of the assets can be clearly identified and described.

The sustainability criteria are complemented by specific indicators, which enable quantitative measurement of the sustainability performance of the assets and which can also be used for reporting.

To review the KPIs used in this SPO, please contact Federico Pezzolato (details above) who will send them directly to you.

Asset evaluation methodology

ISS-oekom 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-oekom or that the information provided did not fulfil the requirements of the ISS-oekom Green Bond KPIs.

The evaluation was carried out using information and documents provided to ISS-oekom on a confidential basis by EnBW (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-oekom identifies the extent to which EnBW's Green Bond contributes to related SDGs and has a positive association with their respective sub-targets.

The contribution assessment is split into two Levels:

- 1. *Level 1:* Contribution and/or obstruction of the Use of Proceeds categories to be financed through the bond to the UN SDGs
- 2. Level 2: Association of the assets' ESG performance with further SDGs



About ISS-oekom SPO

ISS-oekom 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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