



# SECOND PARTY OPINION (SPO)

Sustainability Quality of the Issuer and Green Bond Asset Pool

BKW AG 18 June 2019

Sustainability Quality of the Issuer and Green Bond Asset Pool



## **CONTENTS**

Overall Evaluation of the Green Bond	3
ISS-oekom ASSESSMENT SUMMARY	3
Contribution of the Green Bond to the UN SDGs	4
ISS-oekom SPO ASSESSMENT	5
PART I: GREEN BOND PRINCIPLES	5
PART II: SUSTAINABILITY QUALITY OF THE GREEN BOND ASSET POOL	10
PART III: ASSESSMENT OF BKW'S ESG PERFORMANCE	13
ANNEX 1: ISS-oekom Corporate Rating	15
ANNEX 2: Methodology	20
About ISS-oekom SPO	21



## Overall Evaluation of the Green Bond

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

- 1. BKW'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. BKW's own sustainability performance, according to the ISS-oekom Corporate Rating.

## ISS-oekom ASSESSMENT SUMMARY

SPO SECTION	SUMMARY	EVALUATION <sup>1</sup>
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 Framework contain a clear description of eligible asset categories which include wind projects and small hydro power plants less than 20 MW of generation capacity.  All assets of the asset pool are located in France, Switzerland and Norway, 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	Within the methodology of the ISS-oekom Corporate Rating, the issuer shows a moderate sustainability performance and is not part of the Top 12 performers out of 110 sector peers (these top performers are classified as Prime in the ISS-oekom methodology). The issuer is ranked 46 <sup>th</sup> among its sector as of 18.06.2019.  BKW's main business focus is on energy generation based on nuclear power, large-scale hydropower, natural gas, wind energy, biomass, solar and other renewable energy sources. The company plans to decommission in 2019 its only nuclear power plant in Mühleberg. Relevant aspects such as facility safety and nuclear decommissioning costs are addressed. Yet, as there is still no adequate site for the final disposal of highly radioactive waste in Switzerland, BKW is still exposed to risks in this context.	Status: Not prime  Rating: C  Prime threshold: B-

<sup>&</sup>lt;sup>1</sup> 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 08.08.2018). The controversy check of the underlying assets has been conducted on the 23.05.2019.



## 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 BKW's green bond to the Sustainable Development Goals defined by the United Nations (UN SDGs).

This assessment is displayed on a 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		
Onshore wind power plants	Significant contribution	7 AFFORDABLE AND CLEAN ENERGY 13 CLIMATE ACTION		
Small-scale hydropower plants (<10MW)	Significant contribution	7 CLEAN EXECUTE  13 CLIMATE ACTION		

BKW's green bond significantly contributes to the SDGs 7 and 13 thanks to its Use of Proceeds categories promoting affordable and clean energy and climate action.

In the contemplated Green Bond issuance, BKW will only include hydropower plants with less than 10 MW of generation capacity which are evaluated by ISS-oekom has contributing significantly to SDGs 7 and 13. Larger scale hydropower plants are considered has having a limited or neutral contribution to those same SDGs as lager scale hydropower have larger adverse effects.



## ISS-oekom SPO ASSESSMENT

#### **PART I: GREEN BOND PRINCIPLES**

#### 1. Use of Proceeds

An amount equal to the net proceeds from the issuance of the Green Bonds will be used to finance and/or refinance, in part or in full, Eligible Green Projects, as defined below:

#### Renewable Energy

Projects aimed at increasing the production, connection and distribution of renewable energies and related infrastructure.

Renewable energies may include:

- Wind projects;
- Small hydro power plants less than 20 MW of generation capacity;
- Medium to large hydro power plants subject to the conformity with recognised international standard, including Climate Bonds Initiative, UNFCCC Clean Development Mechanism, IFC Reference Standards for hydro projects or equivalent;
- Solar photovoltaic;
- Biomass plants.

#### Energy Efficiency

- Investments in smart grid/meters for energy demand management;
- Grid infrastructure improvements that allow higher transmission efficiency and reduce energy loss;
- Storage systems development.

#### Green Buildings

New, existing or refurbished buildings which meet at least one of the following criteria:

- For new buildings:
  - Minergie®-P/-A-/-ECO- Standard; or
  - SNBS/DGNB Standard Gold / Platinum; or
  - Compatibility with "SIA-Effizienzpfad Energie"
- For renovation/refurbishments:
  - Minergie®-P/-A-/-ECO- Standard refurbishments; or
  - SNBS/DGNB Standard Gold / Platinum; or
  - Reduction of 25% compared to SIA requirements for refurbishments (QH,li / SIA 308/1); or
  - Energy or environmental-friendly improvements such as thermal insulation, climate-friendly heat generation (thermic solar systems, heat pumps, regenerative energy sources, heat recovery...), PV installations, LED lighting, water saving technologies, green roof garden, etc.; or
  - Ecological measures such as resource-saving development through the reuse of existing infrastructure, use of resource-saving construction methods or use of recycled material (concrete, wood, insulation materials).

Sustainability Quality of the Issuer and Green Bond Asset Pool



#### Terrestrial biodiversity conservation

Land preservation and grid improvement through (i) the replacement of overhead power lines with efficient underground cable or (ii) installation of underground cables instead of overhead power lines.

Eligible Green Projects may include capital expenditures, operating expenditures related to improvement and maintenance of Eligible Green Projects, research and development, as well as acquisitions of companies specialized in any of the above Green Bond Categories<sup>2</sup>.

USE OF PROCEEDS CATEGORIES	INCLUDED IN INAUGURAL GREEN BOND PORTFOLIO	SHARE OF ASSET POOL
1. Renewable energy	✓ Yes	100%
1.1 Onshore wind	✓ Yes	87.5%
1.2 Small Hydropower (<10MW)	✓ Yes	12.5%
2. Energy efficiency	No	-
3. Green Buildings	No	-
4. Terrestrial biodiversity conservation	No	-

Projects for the inaugural Green Bond are selected based on the Environmental, Social and Governance (ESG) criteria provided in Appendix 1 of BKW's Green Bond Framework and a list of Eligible Green Projects identified for BKW's inaugural Green Bond issuance is detailed in Appendix 2 of the same document.

Projects related to any of the following aspects will be excluded: nuclear power, fossil fuel, and production facilities within protected areas, e.g. to Ramsar or International Union for Conservation of Nature I-IV.

**Opinion**: ISS-oekom finds that BKW's use of proceeds is aligned with GBPs. The proceeds' distribution is disclosed by project categories and the sustainability objectives are clearly defined and aligned with the broader strategy of BKW toward sustainability. Even though harmful projects are excluded from the Eligible Projects, close scrutiny on the potential adverse effects will be needed in the case biomass plants and large-hydro power plants would be allocated in further Green Bond issuances under this Green Bond Framework.

<sup>&</sup>lt;sup>2</sup> At least 90% of the revenue of the company acquired derives from activities falling in any of the above has to relate to the Green Bond Category.

Sustainability Quality of the Issuer and Green Bond Asset Pool



#### 2. Process for Project Evaluation and Selection

BKW has further strengthened the integration of sustainability into their business model by setting up a dedicated cross-departmental Green Bond Committee (GBC) to identify and select Eligible Green Projects. The GBC is comprised of members from Treasury, Sustainability, Investor relations, Business development and other functional teams (as needed).

#### The GBC's role is to:

- 1. Review, select and validate the pool of Eligible Green Projects, based on the Green Bond Framework;
- 2. Validate annual reporting for investors;
- 3. Monitor the on-going evolution related to the Sustainable Capital Markets (i.e. GBPs) in terms of disclosure/reporting in order to be in-line with market best practices; and
- 4. Review the Framework to reflect any changes with regards to the Company's sustainability strategies and initiatives and to be in-line with market best practices.

**Opinion:** ISS-oekom finds that the process for project evaluation and selection of project is aligned with the GBPs. Eligibility criteria are defined and transparent, a summary of which is clearly displayed in the Green Bond Framework and the process for selection using those criteria is structured and includes wider ESG criteria.

#### 3. Management of Proceeds

An amount equal to the net proceeds of the Green Bonds will be credited to the general account owned by a BKW Group company<sup>3</sup>.

If the net proceeds from BKW's Green Bonds are used to finance new projects selected by the GBC, the funds will be transferred to the corporate entities in charge of the project in the form of intercompany loans or equity capital, with the purpose to finance the disbursements in connection with the Eligible Green Projects. The above-mentioned process will be monitored until full allocation of the net proceeds. BKW intends to fully allocate the proceeds within 24 months after the Green Bond issuance date.

If the net proceeds from BKW's Green Bonds are used to refinance existing projects, an amount equal to the net proceeds will be allocated to the Eligible Green Projects as selected by the GBC in accordance with BKW's Green Bond Framework. Net proceeds can refinance Eligible Green Projects with a commissioning date up to 36 months before the issuance of a Green Bond. Depending on the life time of Eligible Green Projects, the lookback period could be longer (i.e. hydropower projects). This will be reviewed on a case-by-case basis and deviations from the lookback period of 36 months will be transparently disclosed in the annual Green Bond report.

All relevant information regarding the issuance of Green Bonds and Eligible Green Projects (re)financed will be monitored and kept in BKW's ERP/Treasury system.

BKW will use its best effort to substitute any projects no longer eligible, as soon as practical once an appropriate substitution option has been identified. Under the scenario where there is a change of

<sup>&</sup>lt;sup>3</sup> BKW AG or BKW Energie AG.

Sustainability Quality of the Issuer and Green Bond Asset Pool



ownership or a change in the capital structure, such as BKW's ownership falling to a proportion that leads to an under commitment of Eligible Green Projects, BKW will find additional projects to make up for the shortfall.

The payment of principal and interest on any bond issued by BKW under the Framework will be made from its general funds and will not be linked to the performance of any Eligible Green Project.

#### **Unallocated Proceeds**

Pending the allocation or reallocation, as the case may be, of the net proceeds, BKW will invest the balance of the net proceeds, at its own discretion, in cash and/or cash equivalents (money market instruments, bank accounts) and/or other liquid marketable instruments, as per the company's investment management policy.

#### **Maximum Allocation Amount**

The BKW Group consists of various operating companies that may have their own debt. Therefore, for every Eligible Green Project, the following condition must be fulfilled for the allocation of Green Bond proceeds:

Maximum allocated proceeds for Eligible Green Projects = (Total eligible expenditure<sup>4</sup> – External debt<sup>5</sup>) \* BKW's share of the project.

Hence only the pro-rata shares of the total results, (i.e. a percentage of the issuing operating company's share of the total financing of the project), would be (re)financed by the Green Bond as a maximum. Impact metrics in the Green Bond impact report will also be reported pro-rata of BKW's share in the Eligible Green Projects.

**Opinion:** ISS-oekom finds that BKW's management of proceeds is aligned with the GBPs. BKW appropriately tracks the amount collected to ensure that it is not superior to the amount allocated to Eligible Green Projects and related to BKW's share of the project. Furthermore, the framework describes the intended types of temporary investments for unallocated proceeds.

#### 4. Reporting

BKW will report on the allocation of net proceeds and associated impact metrics annually until the maturity of the respective Green Bond, and as necessary in the event of material development. This report will be published in March every year as part of BKW Group's annual report, with the first publication expected in March 2020.

## **Allocation Reporting**

- The list of Eligible Green Projects (re)financed with a description;
- The aggregated amount of allocation of the net proceeds to the Eligible Green Projects;
- The proportion of net proceeds used for financing versus refinancing; and,
- The balance of any unallocated proceeds invested in cash and/or cash equivalents.

<sup>&</sup>lt;sup>4</sup> Capital expenditure or operational expenditure

<sup>&</sup>lt;sup>5</sup> External debt which is specifically financing the Eligible Green Project

Sustainability Quality of the Issuer and Green Bond Asset Pool



#### **Example Impact Reporting**

Where feasible, BKW will report on a number of impact metrics associated with the Eligible Green Projects funded with the net proceeds of the Green Bond.

GREEN BOND CATEGORY	IMPACT MEASUREMENT METRICS EXAMPLES (NOT EXHAUSTIVE)
Renewable energy	<ul> <li>Installed power capacity (MW)</li> <li>Generated annual electricity quantity (MWh)</li> <li>CO<sub>2</sub> avoided (tonnes of CO<sub>2</sub> equivalent per year)</li> </ul>
Energy efficiency	<ul> <li>Expected energy savings from grid infrastructure improvements, such as energy demand management</li> <li>CO<sub>2</sub> avoided (tonnes of CO<sub>2</sub> equivalent per year)</li> </ul>
Green Buildings	<ul> <li>Annual reduction of energy consumption in % and in kWh/m²</li> <li>Annual average energy consumption in kWh/m²</li> <li>Minergie®/SNBS/DGNB certification level</li> <li>Annual reduction of CO<sub>2</sub> emissions (kg CO<sub>2</sub> equivalent per m² per year)</li> <li>Annual CO<sub>2</sub> emissions (kg/m²)</li> </ul>
Terrestrial biodiversity conservation	<ul> <li>Restitution of area occupied by overhead lines in m<sup>2</sup></li> <li>Construction of underground cables (km)</li> </ul>

**Opinion:** ISS-oekom finds that the reporting is aligned with the GBPs. A process for monitoring and reporting is formalized and structured. The level of reporting, information reported, frequency, scope and duration of reporting are transparent both for allocation and impact reporting.

#### **External review**

#### **Second Party Opinion**

ISS-oekom has been commissioned to review BKW's Green Bond Framework and verify its alignment with the GBPs and market practices. The SPO has been made available on BKW's website<sup>6</sup>.

## Annual Audit/Limited Assurance

The allocation of Green Bond proceeds and impact measurement metrics will be reviewed by an auditor. A confirmation letter (called "Limited Assurance") will be made available on BKW's website.

<sup>&</sup>lt;sup>6</sup> https://www.bkw.ch/en/about-us/investor-relations/



# PART II: SUSTAINABILITY QUALITY OF THE GREEN BOND ASSET POOL

#### **Evaluation of the assets**

#### Onshore wind

As a Use of Proceeds category, onshore wind has a strong contribution to the SDGs 7 "Affordable and clean energy" and 13 "Climate action".

Additionally, when considering the deeper ESG management, 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.

#### ASSESSMENT AGAINST ISS-OEKOM ESG KPI

ASSOCIATION WITH THE SDGS

#### 1.1. Site selection

100% of the assets are not located in key biodiversity areas (Ramsar sites, UNESCO World Heritage Natural Sites, IUCN protected areas I-IV).



100% of assets underwent environmental impact assessments at the planning stage.



#### 1.2. Community dialogue

100% of assets feature community dialogue as an integral part of the planning process (e.g. sound information of communities, community advisory panels and committees, surveys and dialogue platforms, grievance mechanisms and compensation schemes).



## 1.3. Environmental aspects of construction and operation

100% of assets meet high environmental standards during the construction phase (e.g. noise mitigation, minimisation of environmental impact during construction work).



100% of assets provide for measures to protect habitat and wildlife ✓ during operation of the power plant (e.g. measures to protect birds and bats).





#### ASSESSMENT AGAINST ISS-OEKOM ESG KPI

ASSOCIATION WITH THE SDGS

#### 1.4. Working conditions during construction and maintenance work

100% of assets provide for high labour and health safety standards for construction and maintenance work.



#### **Controversy assessment**

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

## Small Hydropower (<10MW)

In the contemplated Green Bond issuance, BKW will only include hydropower plants with less than 10 MW of generation capacity which are evaluated by ISS-oekom has contributing significantly to SDGs 7 and 13. Larger scale hydropower plants are considered having a limited or neutral contribution to those same SDGs as lager scale hydropower have larger adverse effects.

Additionally, when considering the deeper ESG management, small hydropower (<10MW) 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.

#### ASSESSMENT AGAINST ISS-OEKOM ESG KPI

ASSOCIATION
WITH THE SDGS

#### 2.1. Site selection

100% of the assets are not located in key biodiversity areas (e.g. Ramsar sites, UNESCO World Heritage Natural Sites, IUCN protected areas I-IV).



100% of assets underwent environmental impact assessments at the planning stage.



## 2.2. Community dialogue

100% of assets feature community dialogue as an integral part of the planning process (e.g. sound information of communities, community advisory panels and committees, surveys and dialogue platforms, grievance mechanisms and compensation schemes).





#### ASSESSMENT AGAINST ISS-OEKOM ESG KPI

ASSOCIATION WITH THE SDGS

## 2.3. Environmental aspects of construction and operation

100% of assets meet high environmental standards during the

✓ construction phase (e.g. noise mitigation, minimisation of environmental impact during construction work).



100% of assets provide for measures to protect habitat and wildlife during operation of the power plant (e.g. measures to protect fishs).



#### 2.4. Working conditions during construction and maintenance work

100% of assets provide for high labour and health safety standards for construction and maintenance work.



#### **Controversy assessment**

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

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



## PART III: ASSESSMENT OF BKW'S ESG PERFORMANCE

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

COMPANY	RATING	STATUS
BKW AG	С	NOT PRIME

This means that the company has a medium performance in terms of sustainability, both compared against others in the industry and in terms of the industry-specific requirements defined by ISS-oekom.

As of 18.06.2019, this rating places BKW  $46^{th}$  out of 110 companies rated by ISS-oekom in the Utilities/Electric 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
- Worker safety and accident prevention
- Business ethics and government relations

In three of the key issues, BKW rates differently from the sector average. A significant outperformance was achieved in "Facilitation of the energy transition and resource efficiency" and "Accessibility and reliability of energy and water supply". The company lags the industry's average performance in "Worker safety and accident prevention".

The company currently owns a nuclear power plant in Mühleberg, which is planned to be decommissioned in 2019. Relevant aspects such as facility safety and nuclear decommissioning costs are addressed. Yet, as there is still no adequate site for the final disposal of highly radioactive waste in Switzerland, BKW is still exposed to risks in this context.

The company is involved in controversial business areas such as production and trading of nuclear power and natural gas-related activities. However, the controversy level of BKW remains lower than the average of its sector peers.

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

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

Sustainability Quality of the Issuer and Green Bond Asset Pool



#### **DISCLAIMER**

- 1. Validity of the SPO: For BKW'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.
- 3. We would, however, point out that we do not warrant that the information presented in this SPO is complete, accurate or up to date. Any liability on the part of ISS-oekom in connection with the use of these SPO, the information provided in them and the use thereof shall be excluded. In particular, we point out that the verification of the compliance with the se-lection criteria is based solely on random samples and documents submitted by the issuer.
- 4. All statements of opinion and value judgements given by us do not in any way constitute purchase or investment recommendations. In particular, the SPO is no assessment of the economic profitability and credit worthiness of a bond but refers exclusively to the social and environmental criteria mentioned above.
- 5. We would point out that this SPO, in particular the images, text and graphics contained therein, and the layout and company logo of ISS-oekom and ISS-ESG are protected under copyright and trademark law. Any use thereof shall require the express prior written consent of ISS. Use shall be deemed to refer in particular to the copying or duplication of the SPO wholly or in part, the distribution of the SPO, either free of charge or against payment, or the exploitation of this SPO in any other conceivable manner.

The issuer that is the subject of this report may have purchased self-assessment tools and publications from ISS Corporate Solutions, Inc. ("ICS"), a wholly-owned subsidiary of ISS, or ICS may have provided advisory or analytical services to the issuer. No employee of ICS played a role in the preparation of this report. If you are an ISS institutional client, you may inquire about any issuer's use of products and services from ICS by emailing <a href="mailto:disclosure@issgovernance.com">disclosure@issgovernance.com</a>.

This report has not been submitted to, nor received approval from, the United States Securities and Exchange Commission or any other regulatory body. While ISS exercised due care in compiling this report, it makes no warranty, express or implied, regarding the accuracy, completeness or usefulness of this information and assumes no liability with respect to the consequences of relying on this information for investment or other purposes. In particular, the research and scores provided are not intended to constitute an offer, solicitation or advice to buy or sell securities nor are they intended to solicit votes or proxies.

ISS is an independent company owned by entities affiliated Genstar Capital ("Genstar"). ISS and Genstar have established policies and procedures to restrict the involvement of Genstar and any of Genstar's employees in the content of ISS' reports. Neither Genstar nor their employees are informed of the contents of any of ISS' analyses or reports prior to their publication or dissemination. The issuer that is the subject of this report may be a client of ISS or ICS, or the parent of, or affiliated with, a client of ISS or ICS.

© 2019 | Institutional Shareholder Services and/or its affiliates

Sustainability Quality of the Issuer and Green Bond Asset Pool



## ANNEX 1: ISS-oekom Corporate Rating

The following pages contain extracts from BKW's 2019 ISS-oekom Corporate Rating.



## **ISS-oekom Corporate Rating**

## **BKW AG**

Industry	Utilities/Electric Utilities	Status	Not Prime
Country	Switzerland	Rating	С
ISIN	CH0130293662	Prime Threshold	B-



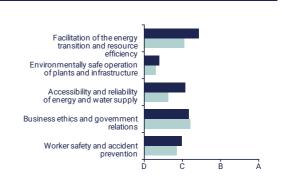
The assessment of a company's sustainability performance is based on approximately 100 criteria, selected specifically for each industry. A company's failure to disclose, or lack of transparency, regarding these matters will impact a company's rating negatively.

#### **Industry Leaders**

Company name	Country	Grade
(in alphabetical order)		
ERG S.p.A.	IT	В
VERBUND AG	AT	В
Ørsted A/S	DK	В
Legend: Industry Company	Prime	

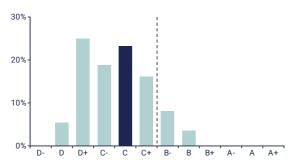
#### **Key Issue Performance**

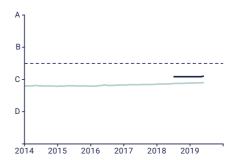
**Rating History** 



#### **Distribution of Ratings**

#### 112 companies in the industry





## **Controversy Monitor**

Company				Industry			
Controversy Score	e		-12	Maximum Contro	versy Score		-38
Controversy Level			Significant	Controversy Risk			Severe
Minor	Moderate	Significant	Severe	Minor	Moderate	Significant	Severe



## **BKW AG**

## **Analyst Opinion**

Alexander Hellwig Sector specialist



#### **Sustainability Opportunities**

BKW's main business focus is on energy generation, and increasingly also on the provision of energy services. In 2017, the company's electricity generation was to 58.9% based on nuclear power, 22.9% on large-scale hydropower, 3.5% on natural gas, 9.3% on wind energy, 0.4% on biomass, 0.1% on solar energy and 4.9% on other renewable energy sources. The current renewable energy share of 37.6% is high compared to sector averages and will further increase after the planned decommissioning of the company's only nuclear power plant Mühleberg in 2019. Due to the dominance of nuclear power and renewable energy sources in the company's generation mix, its carbon intensity of electricity generation is very low (14 g/kWh in 2017), but will to some extent increase after the decommissioning of the nuclear power plant. BKW plans further investments in wind and hydropower plants, and will have an increased focus on energy services. Yet, some doubts about its future generation mix remain, as there is no evidence on quantitative targets with regard to renewable energy sources and it is unclear if investments will exceed those in conventional sources (e.g. natural gas).

#### **Sustainability Risks**

BKW's carbon footprint is rather low, which to some extent decreases its exposure to regulatory risks related to climate change. Yet, the company does not refer to any other climate change related risks (e.g. physical risks related to extreme weather events) and its mitigation strategy in this regard. No targets are in place to further reduce the company's greenhouse gas emissions. Regarding the company's nuclear power plant, relevant aspects such as facility safety and nuclear decommissioning costs are addressed. Yet, as there is still no adequate site for the final disposal of highly radioactive waste in Switzerland, BKW is still exposed to risks in this context. Relevant environmental aspects related to the operation of hydropower stations (e.g. effective fish facilities, environmental flow requirements) are addressed and some sites are certified according to the nature made star, which implies high ecological standards, but it is unclear if similar standards are in place for all hydropower plants. While network losses are low, only single measures are referred to that reduce environmental impacts of the power network.

The company's average interruption of power supply is comparatively low (29 minutes per customer in 2016), but only few measures are referred to that ensure the reliability of the power network in the future (e.g. investment programmes, risk assessments). BKW has established group-wide health and safety management systems, with OHSAS 18001 certifications covering at least some operations. Yet, its accident rates increased over the last years, and no reference is made to fatal accidents and safety performance data for on-site contractors. With regard to business ethics, the company's code of conduct refers to relevant issues such as corruption and conflicts of interest, but only on a general basis. Some corresponding

#### **Governance Opinion**

compliance measures are in place.

BKW is majority-owned by the Canton of Bern (52.6% of share capital, as at May 2019) and the majority of investors have a long-term investment horizon. While more than 70% of the company's board members are independent, the chair of the company's board (Urs Gasche, as at April 2018), is a former representative of the Canton of Bern and thus not considered as independent. The company has set up a fully independent audit committee as well as remuneration and nomination committees with about a third of its members being defined as independent. BKW discloses its remuneration policy, including variable and long-term components, for the CEO individually and the remaining executives as a whole. There is no evidence that the company has established a sustainability committee. The company's remuneration policy does not indicate information on the integration of sustainability performance objectives into the executive remuneration. The company has established a code of conduct dealing with several topics such as corruption, antitrust and insider dealings, but only in general terms. Some topics like gifts, favours and entertainment are not referred to. BKW has set up single measures to ensure compliance such as training, non-compliance reporting and whistleblower protection.



## **BKW AG**

## Methodology - Overview

**ISS-oekom Corporate Rating** - The ISS-oekom Universe comprises more than 3,900 companies (mostly companies in important national and international indices, but also small and mid caps drawn from sectors with direct links to sustainability as well as significant non-listed bond issuers).

The assessment of a company's social & governance and environmental performance is based on approximately 100 environmental, social and governance criteria, selected specifically for each industry. All criteria are individually weighted and evaluated and the results are aggregated to yield an overall score (rating), in which the key issues account for at least 50 per cent of the total weight. In case there is no relevant or up-to-date company information available on a certain criterion and no assumptions can be made based on predefined standards and expertise, e.g. known and already classified country standards, the criterion is graded with a D-.

In order to obtain a comprehensive and balanced picture of each company, our analysts assess relevant information reported or directly provided by the company itself as well as information from independent sources. In addition, our analysts actively seek a dialogue with the assessed companies during the rating process and companies are regularly given the opportunity to comment on the results and provide additional information.

An external rating committee assists the analysts at ISS-oekom with the content-related design of industry-specific criteria and carries out a final plausibility check of the rating results at the end of the rating process.

Analyst Opinion - Qualitative summary and explanation of the central rating results in three dimensions:

- (1) Opportunities assessment of the quality and the current and future share of sales of a company's products and services, which positively or negatively contribute to the management of principal sustainability challenges.
- (2) Risks summary assessment of how proactively and successfully the company addresses specific sustainability challenges found in its business activity and value chain, thus reducing its individual risks, in particular regarding its sector's key issues.
- (3) Governance overview of the company's governance structures and measures as well as of the quality and efficacy of policies regarding its ethical business conduct.

Controversial Business Practices and Areas - In addition to the rating, ISS-oekom undertakes a comprehensive analysis of relevant controversies with respect to numerous business practices and areas for each company. Thereby, our clients have the possibility to consider, either separately or in addition to the rating, the behaviour and the activities of a company in areas they view as especially critical.

With regard to business practices, each controversial case is examined and categorised based on whether it can be clearly attributed to the company. Additionally, the extent of the company's responsibility and the severity of the case are assessed. For the classification of the severity of the misconduct, the concrete negative effects are systematically evaluated. In addition, it is considered whether, to what extent and with what success the company has taken steps to mitigate the impact, to compensate it and to prevent similar incidents from occurring in the future.

To account for the varying levels of severity of the controversies, these are classified into the following three categories: moderate controversies, severe controversies and very severe controversies. Additionally, potential controversies are presented. These constitute issues which could be reclassified into one of the three controversy categories in case new information is reported. The classification follows a clear and uniform methodology for which ISS-oekom has defined specific evaluation parameters and their possible manifestations along a scale, based on international norms and standards and its own understanding of sustainability.

In the Business Practices section, the number of relevant and active cases is displayed in the respective cells. For each criterion, the sum of all corresponding cases for each sub-category is shown in the first line. In the Business Areas section, the activity is marked "x" and summarised as "yes" or "no". The percentage thresholds in the column headers generally refer to the Net Sales of the assessed company. As Net Sales are not an adequate reference value for all companies, these thresholds can refer to other values in individual cases (e.g. for different financial service providers).

Current cases are summarised in the "Comments" field. Irrespective of active cases, criteria marked as "Risk Exposure" indicate the company's risk exposure to controversies based on its business activities.

For the assessment of cases only those sources that have been classified by ISS-oekom as reliable are used. In addition to proven misconduct or activities of companies, alleged misconduct or activities are also assessed when the facts and circumstantial evidence provided by those sources, taking into account the experience of specialised analysts for each topic, is estimated to be sufficiently reliable. This applies not only to alleged practices, but also to the alleged serious negative effects of such practices.



## **BKW AG**

## Methodology - Overview

**Controversy Monitor** - The Controversy Monitor is a tool for assessing and managing reputational and financial risks associated with companies' negative environmental and social impacts.

The controversy score is a unit of measurement for the number and severity of a company's current controversies. All controversial business areas and business practices receive a negative score, which can vary depending on the significance, number and severity of the controversies. Both the company's score and the maximum score obtained in the industry are displayed.

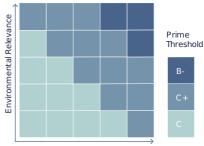
For better classification, the scores are assigned different levels: minor, moderate, significant and severe. The industry level relates to the average controversy score.

Only controversies for which reliable information from trustworthy sources is available are recorded. In addition to proven misconduct and activities of companies, alleged misconduct and activities are also assessed when the facts and circumstantial evidence provided by those sources, taking into account the experience of specialised analysts for each topic, is estimated to be sufficiently reliable. It should be noted that large international companies are more often the focus of public and media attention. Thus, the information available on those companies is often more comprehensive than for less prominent companies.

**Distribution of Ratings** - Overview of the distribution of the ratings of all companies from the respective industry that are included in the ISS-oekom Universe (company portrayed in this report: dark blue).

**Industry Classification** - The social and environmental impacts of industries differ. Therefore, based on its relevance, each industry analysed is classified in a Sustainability Matrix.

Depending on this classification, the two dimensions of the ISS-oekom Corporate Rating, the Social Rating and the Environmental Rating, are weighted and the sector-specific minimum requirements for the ISS-oekom Prime Status (Prime threshold) are defined (absolute best-in-class approach).



Social & Governance Relevance

Industry Leaders - List (in alphabetical order) of the top three companies in an industry from the ISS-oekom Universe at the time of generation of this report.

Key Issue Performance - Overview of the company's performance with regard to the key social and environmental issues in the industry, compared to the industry average.

Major Shareholders & Ownership Summary - Overview of the company's major shareholders at the time of generation of this report. All data as well as the categorisation system for the investor types is based on information from S&P Capital IQ.

Rating History - Development of the company's rating over time and comparison to the average rating in the industry.

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

A+: the company shows excellent performance.

D-: the company shows poor performance (or fails to demonstrate any commitment to appropriately address the topic).

Overview of the range of scores achieved in the industry (light blue) and indication of the grade of the company evaluated in this report (dark blue).

Sources of Information - A selection of sources used for this report is illustrated in the annex.

Status & Prime Threshold - Companies are categorised as Prime if they achieve/exceed the minimum sustainability performance requirements (Prime threshold) defined by ISS-oekom for a specific industry (absolute best-in-class approach) in the ISS-oekom Corporate Rating. Prime companies rank among the sustainability leaders in that industry.

Sustainability Quality of the Issuer and Green Bond Asset Pool



## 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 BKW's Green Bond.

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 BKW (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 BKW'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

Sustainability Quality of the Issuer and Green Bond Asset Pool



## 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/

For Information about SPO services, and this Green Bond, contact:

Federico Pezzolato

 $\frac{Federico. Pezzolato@isscorporate solutions.com}{SPO@isscorporate solutions.com}$ 

+44.20.3192.5760