

ANNUAL REPORT 2020

# BKW Green Bond

BKW GREEN BOND

# Reporting on allocation and impact



Dear shareholders,  
Dear Sir/Madam,

In 2019, BKW became the first listed Swiss company to issue a Green Bond for trading on the Swiss exchange, thereby enhancing the green bonds offer on the Swiss capital market. I am extraordinarily proud that at the start of 2021, BKW, through Kraftwerke Oberhasli AG, has issued Switzerland's first green bond for large-scale hydroelectric power and storage and therefore achieves yet another pioneering landmark.

Topics such as climate protection and renewable energy supply have been driving our company for many years, and in 2019 we set ourselves the target of making sure that 75% of our production capacity would consist of renewables

by 2023. The income from the issue has been used accordingly to finance renewable wind and small hydroelectric power plants.

I would like to take this opportunity to provide a short progress report: At the end of 2020, the proportion of renewable production capacity was 74%. That means that we are 99% of the way to achieving our target. We're therefore on track.

In mid-August 2020, BKW commenced construction of the Sousbach hydroelectric plant, which is planned to enter operation in spring 2025 and will generate renewable electricity for 6,700 homes. In total, BKW invested CHF 5.3 million in 2020. Thus, 100% of the net proceeds has been allocated to green projects.

*"Thanks to the investments made in 2020, 100% of the net proceeds has been allocated to green projects."*

The wind farms in France were running according to plan. And in Norway, the Harbaksfjellet and Kvenndalsfjellet wind farms came online in 2020 as planned. While the construction of the Geitfjellet wind farm was completed according to plan in August 2020, commissioning was delayed because of Covid-19, so that 10 of the 43 turbines could not enter into operation until the start of 2021. All of the wind farms are now in production.

The 373.9 GWh of electricity produced in 2020 and attributable to the Green Bond corresponds to the annual consumption of 83,000 households<sup>1</sup> in Switzerland. The CO<sub>2</sub>e emissions saved in the same period amount to 6,180

tonnes or 8,085 tonnes since the launch of the Green Bond. We are pleased to provide you with details below about the allocation of the net proceeds and the impact we have achieved through the projects financed by the Green Bond in 2020.

Best regards,



Ronald Trächsel  
CFO

<sup>1</sup> Calculation based on consumption of a 5-room apartment of 4,500 kWh per annum, according to <https://www.strompreis.elcom.admin.ch/BaseDataSelection.aspx>

## Reporting on allocation and impact

To ensure the transparency and quality of the green bonds issued, BKW reports annually on the allocation of net proceeds and impact. The

following reporting principles have been defined for quality assurance purposes:

### BKW Green Bond reporting principles

#### Installed capacity (MW)

In the case of projects in operation, installed capacity in megawatts (MW) indicates the installed capacity attributable to the Green Bond based on the commissioning documentation. In the case of projects under construction, the capacity shows the planned capacity attributable to the Green Bond based on the manufacturer's type certificate or the hydro-electric concession.

#### Production (GWh)

Production in gigawatt hours (GWh) indicates production based on production data (energy statistics) for 2020 attributable to the Green Bond.

#### Greenhouse gas emissions in CO<sub>2</sub>e (t) avoided

The Green Bond projects generate renewable electricity in Norway, France and Switzerland. When calculating the emissions avoided, we assume that the electricity generated by the Green Bond projects would otherwise have been generated using the country's typical production mix.

The emission factors for these production mixes form our baseline accordingly. In contrast to the previous reporting, we now use the latest information from the International Energy

Agency (IEA)<sup>1</sup> for all countries. The IEA now includes greenhouse gases CH<sub>4</sub> (methane) and N<sub>2</sub>O (nitrous oxide) as well as CO<sub>2</sub>. The following values are used for the calculations:

- Switzerland: 26.3 g CO<sub>2</sub>e/kWh
- France: 54.1 g CO<sub>2</sub>e/kWh
- Norway: 8.6 g CO<sub>2</sub>e/kWh

Direct emissions for the projects are calculated using treeze<sup>2</sup>. These are 0 g CO<sub>2</sub>e/kWh each for the small hydropower and onshore wind technologies.

The CO<sub>2</sub>e in tonnes (t) avoided is calculated by multiplying the production quantity of a project attributable to the Green Bond by the CO<sub>2</sub>e emission factor of the production mix for the country in which the project is located.

#### Allocation (CHF million)

The allocation in millions of Swiss francs (CHF million) corresponds to the amount of the net proceeds from the Green Bond allocated to the respective technology.

#### Allocation (%)

The allocation in % corresponds to the share of the net proceeds from the Green Bond allocated to the respective technology.

1 IEA Statistics Data Service: Emissions Factors, 2020 edition, released 11 September 2020

2 treeze Ltd. (Messmer A., Frischknecht R.) (2016): Umweltbilanz Strommix Schweiz 2014

## Reporting on allocation and impact

Technology	Project	Country	Status	Year	Installed production MW	Production 2020 GWh	Attributable to the Green Bond ...		Allocation <sup>1</sup> CHF millions	%
							Comis- sioning	CO <sub>2</sub> e avoided 2020 t		
Small hydro	Ragn d'Err <sup>2</sup>	Switzerland	Operation	2016	2.3	7.9		206.5		
	Schattenhalb			2017	1.3	3.4		88.3		
	Spiggebach			2017	0.8	3.0		79.3		
	Sousbach		Planning	2025	1.2	0.0		0.0		
<b>Subtotal small hydro</b>					<b>5.6</b>	<b>14.3</b>	<b>374.1</b>	<b>25.0</b>	<b>12.5 %</b>	
Wind	Saint Germier	France	Operation	2017	7.1	23.2		1,257.6		
	St. Julien du Terroux			2017	6.1	12.1		652.3		
	RAZ Energie 3			2017	13.4	24.3		1,315.6		
	Roan			2018	25.0	91.5		786.8		
	Marker	Norway	Operation	2019	40.1	144.5		1,242.9		
	Hitra II			2019	7.9	25.5		219.4		
	Harbaks-/ Kvenndalsfjellet <sup>3</sup>			2020	22.4	25.4		218.6		
Geitfjellet <sup>4</sup>		Partial operation	2020/21	17.1	13.1		112.8			
<b>Subtotal wind</b>					<b>139.1</b>	<b>359.6</b>	<b>5,806.0</b>	<b>175.0</b>	<b>87.5 %</b>	
<b>Not allocated</b>								<b>0.0</b>	<b>0.0 %</b>	
<b>Total</b>					<b>144.7</b>	<b>373.9</b>	<b>6,180.1</b>	<b>200.0</b>	<b>100.0 %</b>	
<b>Total since issuance</b>						<b>491.2</b>	<b>8,085.0</b>			

1 The allocation includes financing of the Sousbach project amounting to CHF 5 million. The remaining CHF 195 million has been used for refinancing.

2 Ragn d'Err: According to the Green Bond Framework, the lookback period of 36 months may be exceeded. The excess must be disclosed transparently. In the case of the Ragn d'Err project, this period was slightly exceeded at 38 months. Due to the project's long term, the project was refinanced with the Green Bond, despite the overrun being small.

3 Harbaksfjellet/Kvenndalsfjellet: These two projects are directly adjacent and were developed, approved and constructed together. Internal reporting is consolidated for both projects. Accordingly, the Green Bond reporting has also been consolidated for both projects.

4 Geitfjellet: Commissioning was planned for 2020 but was delayed due to Covid-19. 33 turbines were commissioned in 2020 and 10 turbines came online at the start of 2021.

# Independent Auditor's Report on Allocation and Impact



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To the management of  
BKW AG, Berne

Berne, 12 March 2021

## Independent assurance report

We have undertaken a limited assurance engagement of the following information and metrics disclosed in the BKW AG annual report 2020 in the chapter "BKW Green Bond" for the reporting period from 1 January 2020 to 31 December 2020:

- Allocation of proceeds and impact metrics (hereafter "the KPIs") as disclosed in the table "Reporting on allocation and impact" on page 119

Our engagement was limited to the KPIs listed above. We have not assessed the following KPIs or information disclosed in the report:

- Information other than the KPIs indicated above
- Qualitative statements



### Responsibility of BKW AG's management

The management of BKW AG is responsible for the preparation of the information and KPIs disclosed in the table on page 119 in the chapter "BKW Green Bond" of the annual report 2020 in accordance with the applicable criteria. This responsibility includes the design, implementation and maintenance of internal controls relevant to the preparation of KPIs that are free from material – intentional or unintentional – misstatement, whether due to fraud or error. Management is further responsible for the selection and application of the applicable criteria and maintaining appropriate records.



### Applicable criteria

BKW AG defined the following as applicable criteria (hereafter "applicable criteria"):

- "Green Bond reporting principles" presented on page 118
- BKW Green Bond Framework (accessible online on BKW's homepage: [www.bkw.ch](http://www.bkw.ch))

We believe that these criteria are a suitable basis for our review.

The quantification of greenhouse gases (GHG) is subject to inherent uncertainty because of incomplete scientific knowledge used to determine emission factors and the values needed to combine emissions of different gases.



### Independence and quality control

We have complied with the independence and other ethical requirements of the *International Code of Ethics for Professional Accountants* issued by the International Ethics Standards Board for Accountants (IESBA), which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior.

The firm applies the International Standard on Quality Control 1 and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.



### Our responsibility

Our responsibility is to express a limited assurance conclusion on the above-mentioned KPIs based on the procedures we have performed and the evidence we have obtained. We conducted our limited assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 – “Assurance Engagements Other than Audits or Reviews of Historical Financial Information”, issued by the International Auditing and Assurance Standards Board. This standard requires that we plan and perform this engagement to obtain limited assurance about whether the KPIs, in all material respects, were prepared in accordance with the applicable criteria.

Based on risk and materiality considerations, we have undertaken procedures to obtain sufficient appropriate evidence. The procedures selected depend on the auditor's judgment. This includes the assessment of the risks of material misstatements in the report with regard to the applicable criteria. The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in scope than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had we performed a reasonable assurance engagement.

The procedures we performed included inquiries, observation of processes performed, inspection of documents, analytical procedures, evaluating the appropriateness of quantification methods and reporting policies, and agreeing or reconciling with underlying records.



### Summary of work performed

Our limited assurance procedures included, amongst others, the following work:

- Assessment of the suitability of the underlying criteria and their consistent application
- Inquiries of company's representatives responsible for collecting, consolidating and calculating the KPIs in order to assess the process of preparing the data, the reporting system, the data capture and compilation methods as well as internal controls to the extent relevant for the limited assurance engagement
- Inspection of the relevant documentation of the systems and processes for compiling, analyzing, and aggregating data and testing such documentation on a sample basis
- Analytical procedures and inspection of documents on a sample basis with respect to the compilation and reporting of quantitative data
- Critical review of the report regarding plausibility and consistency of the KPIs with the information in the report

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.



### Our conclusion

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that the KPIs in the report are not prepared, in all material respects, in accordance with the applicable criteria.

Ernst & Young Ltd

Mathias Zeller  
Associate Partner

Mark Veser  
Senior Manager