

BKW GROUP

Sustainability Report

2021



Climate change,
urbanization,
scarcity of resources,
and habitat loss pose
enormous challenges
to our society.

With its solutions,
BKW acknowledges
its responsibility and
contributes to a
future worth living.

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INTRODUCTION

Overall solutions for sustainable development



Ladies and Gentlemen,

BKW wants to help shape the transformation of the energy supply and foster the use of renewable energy. Production, supply, and private infrastructure need to meet increasingly stringent technical, regulatory, and environmental requirements. At the same time, the environmental impact of climate change is becoming more extreme. BKW develops, plans, and implements sustainable solutions that take these new demands into account. Its business activities in the fields of energy, buildings, and infrastructure serve as the foundation for its contribution to dealing with global challenges. By supporting customers who are facing issues arising from climate change, digital transformation, and urbanization, BKW is committed to helping to find a balance between prosperity and the environment.

Since February 2021, BKW has been a participant in the United Nations Global Compact, which involves making a commitment to responsible corporate governance in order to achieve sustainable development. By participating in this network and through successful dialogue in the Swiss National Contact Point for OECD Guidelines for Multinational Enterprises, BKW has reaffirmed its commitment to decent working conditions and fair conduct in all its business activities. Over the past year, it has been working to analyze its impact on the environment and society as well as to reduce negative impacts.

BKW will continue to intensively dedicate itself to continuous improvement in 2022. This year, BKW is renewing its commitment to responsible corporate governance by confirming its support for the 10 principles of the United Nations Global Compact in the areas of human rights, labor standards, environmental protection, and anti-corruption.

After participating for the last year, BKW is publishing a progress report for the first time this year. This progress report describes the actions being taken to continuously improve the integration of the Global Compact and its principles into its business strategy, corporate culture, and daily operations. BKW also undertakes to forward this information to its stakeholders using its communication channels.

Kind regards,

Dr. Suzanne Thoma
CEO

WE SUPPORT



More information at
www.globalcompact.ch

CORPORATE SUSTAINABILITY

Sustainability management at BKW

BKW's sustainability management makes it possible for the company to make a material contribution to the sustainable development of society and the economy. To do this, BKW identifies and assesses sustainability risks that influence its business activities.

BKW's mission, "Solutions for a future worth living" guides its sustainability management: BKW designs infrastructure for living spaces and makes a positive contribution to climate protection, fosters a humane working environment, and helps to bring about an ethical economy. Along the way, it operates according to the precautionary principle and the objective of avoiding and reducing harm to people and the environment.

The BKW Board of Directors is ultimately responsible for all strategic decisions on sustainability

issues and responsible corporate governance. The compliance & sustainability department coordinates sustainability management. It is responsible for further development of the strategic framework with a view to sustainability and advises the individual divisions and companies of the BKW Group in regard to sustainability issues. BKW also tracks important developments in politics, society, and the market through its membership in the Swiss Business Council for Sustainable Business (öbu) and its participation in events organized by the Global Compact Network Switzerland & Liechtenstein.



More information at
www.bkw.ch/sustainability

Managing sustainability risks

BKW incorporates sustainability risks into corporate risk management and into strategic decisions. In this process, sustainability management works closely with compliance, risk management, and the business departments and functions. Discussions take place as required. The departments involved cooperate to identify and assess sustainability risks and initiate any necessary actions that may arise as a result. These include existing processes for checking the integrity of (potential) business partners or preventive compliance training and consulting for employees in sales, trading, and project acquisitions.

Since 2021, BKW has been using risk management software to process sustainability risks in a structured manner, to define actions to be taken, and to create reports. This tool will be gradually expanded and it will be accessible to all Group companies during the course of 2022. In conjunction with this, BKW will also work more intensively on identifying and assessing sustainability risks. In addition, all employees and suppliers can use an anonymous and confidential whistleblower system to report incidents that are in breach of the law, the BKW Code of Conduct, or other internal regulations, and may therefore pose risks.

In 2021, BKW conducted an analysis of the most relevant sustainability risks that pose risks to, or arise from, its business activities. This included surveying the sustainability risks relating to the four areas of the United Nations Global Compact: environment and climate, human rights, labor standards and social issues, and anti-corruption.



The following section lists these topic areas and outlines how to deal with them in terms of due diligence.

Environment and climate

As an energy and infrastructure company, BKW bears a special responsibility with regard to the environment and climate, as in this context impacts on third parties cannot be avoided. Examples include impacts from hydroelectric plants on species and ecosystems, environmental pollution risks from operational activities (such as oil spills in plants, power plant expansion, SF6 leaks in substations), and emissions from thermal power plants. These risks can be reduced through continuous monitoring of operations and certified environmental management systems for energy production and grid operation activities.

With regard to climate change, the following risks have been identified for BKW. Physical climate-related risks include:

- Extreme floods or droughts can affect the output of run-of-river hydroelectric plants
- Powerful storms can damage the distribution grid or turbines on wind farms
- Landslides near reservoirs or grids in mountainous areas can cause damage
- Long-term glacial melt can change water levels and the reliability of inflow into reservoirs
- Natural forces can cause supply bottlenecks in countries where goods are produced or disrupt supply routes



In addition, the following climate-related transition risks¹ impact BKW:

- Increasing CO₂ prices for gas and coal-fired power plants influencing profitability
- Regulation of products, such as heating system types, leading to a reduction in business activities

Human rights

For BKW, there is a risk that human rights may be violated in the supply chain (such as through forced labor or child labor) and that the rights of indigenous peoples may be affected by energy projects abroad. This can lead to reputational damage for BKW. To appropriately address these risks, measures such as training for all employees on the Code of Conduct, a binding Code of Conduct for all suppliers, the performance of due diligence audits in the supply chain, and human rights due diligence audits for projects are in place.

Labor standards and social issues

In the area of employee matters and social issues, BKW's business activities could give rise to various risks: the risk of adverse effects on

employee health as a result of dangerous work, hazardous working conditions at supplier sites, and risks to society due to failure of critical infrastructure in the Swiss energy system. For BKW, risks in the area of labor standards and social issues lie in the loss of employees due to accidents, illness, or turnover, as well as in financial losses or reputational damage in the event of infrastructure damage. To avoid or reduce these risks, BKW has a Suppliers' Code of Conduct and a Safety Policy. The company also regularly implements activities and campaigns to improve occupational health and safety. BKW performs continuous checks and preventive maintenance measures on its infrastructure. To enable a quick and appropriate response in cases of doubt, an emergency management system has been established in all divisions, along with a crisis management system at the Group level.

Anti-corruption

In relation to bribery and corruption, no relevant risks have currently been identified for BKW and originating from it to society. Nevertheless, BKW maintains a high level of awareness for these issues and provides targeted training for employees working in sales, for example.



More information at
[www.bkw.ch/
codeofconduct](http://www.bkw.ch/codeofconduct)

[www.bkw.ch/
procurementpolicy](http://www.bkw.ch/procurementpolicy)

¹ Transition risks, including policy and legal measures in response to climate change, technological changes, market reactions, and reputational risks.

SOCIAL RESPONSIBILITY

BKW's contribution to the Sustainable Development Goals

BKW acknowledges its social responsibility for combating the major global challenges. The focus is on issues such as climate change, a renewable energy supply, and sustainable design of urban spaces. Together with other stakeholders, BKW would like to find answers and make a contribution to a future worth living. This also creates opportunities for BKW as an international and trailblazing energy and infrastructure service provider.

In addition to the principles of the UN Global Compact, BKW is also committed to the Sustainable Development Goals (SDGs) of the UN Agenda 2030. In collaboration with a consulting firm specializing in sustainability, in 2019 BKW analyzed the most significant impacts of its business activities on the environment, society, and the economy along the entire value chain. Based on this work, the company identified 10 of these 17 Sustainable Development Goals where it can

achieve the greatest impact, with these SDGs now forming the basis of sustainability management at BKW.

In the 2021 financial year, BKW put its focus on making progress in regard to 5 SDGs. These affect BKW's core business and are currently of particular concern to the company and society (see figure).

Sustainable Development Goals of BKW



Focus 2021

In the 2021 financial year, BKW put its focus on making progress in regard to 5 SDGs. These affect BKW's core business and are currently of particular concern to the company and society (see figure).

BKW's contributions to the five focus topics are described in more detail in the following sections: The final section of this report summarizes information on contributions to SDGs 6, 9, 11, 12, and 15.



SDG 13: Climate Action

Products and services to mitigate climate change and adapt to climate change are at the core of BKW's corporate strategy

From page 10



SDG 7: Affordable and Clean Energy

The energy transition and the expansion of renewable energy are strategically relevant, with BKW adding value to society in this area

From page 14



SDG 3: Good health and well-being

Healthy and productive employees are the foundation for BKW's business performance

From page 19



SDG 8: Decent work and economic growth

Decent working conditions, resource efficiency, and sustainable economic growth are the cornerstones of economic success

From page 23



SDG 16: Peace, justice, and strong institutions

Fair, non-discriminatory, and respectful interaction with all business stakeholders is a high priority of BKW

From page 26



SDG 13: Climate Action

Why SDG 13 is relevant for BKW

The challenges associated with climate protection and climate change are increasing steadily. However, the growing need for solutions to reduce emissions and adapt to climate change also offers business opportunities for BKW. With renewable electricity generation, energy efficiency solutions, and heating networks based on renewable energy, BKW Energy and its approximately 1,900 employees are contributing to overarching solutions in the provision of a climate-friendly energy supply. There is close cooperation with the roughly 3,500 employees of BKW Building Solutions, who through their installations of heat pumps, photovoltaic systems, and charging stations are contributing to the climate-friendly electrification for heating and mobility requirements.

BKW also supports its customers in avoiding and reducing emissions as well as in adapting to the climate change that is already taking place. The focus is on measures such as municipal risk

assessments for heavy rainfall, construction of flood retention basins, land restoration planning, climate change adapted architecture, and general design of resource-efficient infrastructures. The highly specialized expertise for these types of services is provided by BKW Engineering and its 3,400 or so employees.

BKW itself is also expected to fulfill demanding requirements. It can reduce greenhouse gas emissions in its own operations, thereby contributing to meeting the commitments made in the Paris Climate Agreement. However, the production of electricity in fossil-fuel power plants goes hand in hand with CO₂ emissions, and the distribution grid relies on the use of insulating gases in substations. A company-owned vehicle fleet is necessary for business operations, as is business travel in the context of international projects. Within this framework, BKW is attempting to make its operations as climate-friendly as possible.

Products and services for climate protection and adapting to climate change

The focus on a CO₂-neutral future and on services for adapting to climate change are key elements of BKW's growth strategy. These trends are driving the growth of BKW's markets and also its economic opportunities. Management in all the various competency areas is responsible for developing solutions for combating the consequences of climate change, and this is carried out in the Group companies who have the relevant expertise on these issues. Experts in various disciplines are constantly monitoring developments and trends and consistently gearing their offerings toward the growing demand from customers and markets for climate-relevant products.

Many of the relevant competencies are concentrated in BKW Engineering's Innovation Center, enabling them to be efficiently and effectively put to use. The Innovation Center is a place of co-creation that brings together interdisciplinary science, technology, business, and societal needs for the development of innovative projects. Cooperation between BKW's network and external partners results in prototypes for CO₂-free solutions in areas such as construction and logistics.



Activities and progress in 2021

In 2021, BKW Energy produced some 5,100 GWh of CO₂-neutral electricity within the production portfolio of its own renewable installations and renewable installations in which it has a stake. CO₂ emissions of some 1.1 million metric tons would have been released into the atmosphere if this electricity had been generated using the average European production mix².

Sustainable generation of heat makes an important contribution to reducing emissions. In 2021, BKW AEK Contracting AG moved forward with 21 projects involving climate-friendly, local heating solutions for large properties and households.

One specific example was the commissioning of the Bolligen district heating grid, which is operated using a heating plant fired with regionally sourced woodchips. In the final build-out phase, CO₂ emissions will be reduced by around 5,700 metric tons annually when compared with fossil fuels. With its entire portfolio of heating grids, in 2021 BKW AEK Contracting AG achieved reductions in CO₂ emissions of approximately 47,000 metric tons compared to fossil fuel.

Pellet heating systems are considered to be a climate-friendly alternative to oil and gas heating systems. As the second-largest pellet producer in



The use of pellets is environmentally friendly and economically viable.

47,000

metric tons of CO₂ were prevented from being released by BKW's heating networks in 2021 compared to fossil fuels.

Switzerland, AEK Pellet AG was able to meet the higher demand by increasing its pellet production. Compared to 2020, its sales rose by 17 percent to 58,000 metric tons of pellets, enough to supply 15,000 single-family homes with heat. Compared to fossil fuels, burning this volume of pellets prevents the release of approximately 80,000 metric tons of CO₂. Using pellets is environmentally friendly and economically viable, as pellets are primarily produced from wood residues from the timber industry and are therefore a by-product.

80,000

metric tons of CO₂ can be saved compared to fossil fuels when BKW wood pellets are used.

² Emission factor: 230.7 g CO₂e/kWh (source: <https://www.eea.europa.eu/ims/greenhouse-gas-emission-intensity-of-1-eu-countries-2020>, includes Scope 1)

The “BKW Energy & Technology Campus” has been under construction in Solothurn since 2021. This is intended to promote start-ups and facilitate information sharing on issues such as climate-friendly electrification of buildings and mobility and smart technology. However, the campus is also the headquarters of BKW Smart Energy & Mobility AG, a new company founded in 2021 that offers integrated charging infrastructure solutions. It installed around 1,500 charging stations in Swiss buildings last year.

BKW Engineering has also participated in projects to increase the resilience of habitats and infrastructure to the consequences of climate change. For example, BKW companies worked with several municipalities on the development of heavy rainfall hazard maps which in turn enabled concepts and actions to be drawn up to improve the municipalities' flood protection. BKW Engineering was also involved in an Austrian research project that provided insights into how changes in land management can reduce the risk to residential properties and infrastructure from heavy rain events and the resulting stormwater runoff.



Outlook

BKW will continue with its strategy of offering its customers comprehensive solutions to reduce or prevent emissions resulting from industrial production, power and heat supply, logistics, and construction. This includes both the growing renewable power production portfolio (see p. 125, section “Products and services with added energy value”) and the further expansion of services related to the zero-emission supply of heat and electromobility.

One priority is the further development of products and services that enable society to adapt to

climate change. BKW will also systematically record the added value generated by services that reduce and prevent emissions as well as projects that address climate change.

BKW greenhouse gas emissions

Public interest in the CO₂ emissions of companies has risen sharply in recent years. It is in BKW's own interest to reduce emissions caused by its business activities. This is now being tackled under the responsibility of the relevant specialist departments in the company. However, due to the strong growth of the many different companies, there was previously no uniform data basis that could provide comparable key figures and indicators. BKW compiled a greenhouse gas footprint document for the first time in 2021. In the coming months, this will be used to develop goals for reducing emissions.



Activities and progress in 2021

Under the aegis of sustainability management and in collaboration with Swiss Climate, a CO₂ footprint was compiled in 2021 based on the accounting principles of the GHG Protocol and the requirements of the ISO 14064-1 standard. The CO₂ figures include all greenhouse gases as defined under the Kyoto Protocol³. The figures reflect the activities of the business segments of Energy, Grid, and Services as well as production in the power plants, which is considered separately.

Data collection in the business segments covered 54 companies, which together account for around 80 percent of BKW's employees. The values for the entire Group were extrapolated on the basis of the number of employees. All Scope 1 and Scope 2 emissions⁴ were included. The result of the survey is shown in the table below.

³ Carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), halogenated hydrofluorocarbons (HFCs), hydrofluorocarbons (HFCs), and sulfur hexafluoride (SF₆).

⁴ Scope 1 includes heating systems, diesel generators, refrigerants, SF₆ emissions, and vehicle fleet (business travel, transportation). Scope 2 includes power consumption, heating systems (district heating, electric heating, electric heat pumps), and vehicle fleet (electric vehicles).

Overview of emissions by business segment

Emissions in mt CO ₂	Scope 1	Scope 2
Energy	1,480	299
Grid	2,493	654
Services	18,552	2,393
Total	22,525	3,346

Data collection for the power plants included the production figures for 2021 for all power plants owned by BKW and, on a pro-rata basis, all power plants with shareholdings and purchase rights. Scope 1 emissions, as well as Scope 3 emissions associated with the provision of energy, were included in the footprint. Generation of power caused total emissions of 1.6 million metric tons of CO₂. The detailed result is shown in the table below.

Overview of power plant emissions

Emissions in mt CO ₂	Scope 1	Scope 3 ⁵
Own power plants	67,889	43,170
Holdings and purchase rights	1,065,116	490,504
Total	1,133,005	533,674

By compiling the greenhouse gas footprint, BKW is creating transparency with regard to activities and areas associated with high emissions. The CO₂ footprint shows that more than 98 percent of nearly 1.7 million metric tons of CO₂ emissions are generated during power production in power plants. The emissions of these power plants are subject to market conditions caused by fluctuations in demand and in the transportation networks and distribution grids. A good 1 percent of the remaining emissions are caused by BKW's own vehicle fleet. These journeys are necessary for the operation and maintenance of production plants and grid infrastructure and for the performance of local consulting, installation, and maintenance services. A review of the increased use of electric vehicles is currently underway, which will lead to a reduction in emissions.

This greenhouse gas footprint has increased awareness of the issue of emissions. Relevant contacts for future data collection are known and necessary processes have been identified and defined. In 2021, BKW submitted CDP's Climate Change Questionnaire for the first time. Participation in this questionnaire also signals to stakeholders that BKW is committed to continuously improving its own environmental performance.



Outlook

In the coming year, the focus will be on increasing internal data transparency, improving data quality, and expanding the scope of the survey. In this context, the extension to Scope 3 categories that are relevant for BKW is also being considered. Continuation of the participation in CDP will also further increase external transparency regarding climate-relevant issues.

In 2022 an ambition level is to be specified for emissions reductions. Processes, responsibilities, and priorities will be defined in the coming months based on the findings to date. Initial reduction measures will then be derived from these and implemented for the business segments. One possible activity is gradual electrification of the company's vehicle fleet in order to reduce the emissions associated with the services offered. With a central fleet management system, BKW already has a suitable structure in place to efficiently conduct the conversions required to reduce the emissions caused by its vehicles. The biggest proportion of BKW's CO₂ emissions is attributed to power production in fossil fuel-fired power plants. Since control of power plants depends to a large extent on market conditions, grid stability, and the need to ensure a reliable power supply, the potential for reduction is limited in this area. This is all the more reason for BKW to strive at all times to keep these emissions as low as possible through the use of state-of-the-art technology and ongoing optimization.

⁵ Includes emissions associated with the provision of energy for Scope 1 (such as production and transport fuels)



SDG 7: Affordable and Clean Energy

Why SDG 7 is relevant for BKW

The global trend towards renewable energies and the energy strategy of the federal government in Switzerland offers great opportunities for BKW's growth strategy. BKW Energy is responsible for the planning, construction, and operation of low-CO₂ power and heat generation as well as other comprehensive solutions for the production, storage, and marketing of energy. The competency area is pursuing the strategy of significantly increasing the proportion of renewable energy in the energy mix. Most of the new capacity is to be built in other European countries. In Switzerland, the current regulatory framework and the numerous opportunities for objections from a wide range of interest groups pose significant challenges for implementation of renewable energy projects and also prevent such projects from being expanded in a timely manner. BKW is proactively addressing these challenges through a variety of different memberships and partnerships, such as in AEE Suisse, swissolar,

and Prosumer-Lab, but also by participating in political and social dialogue.

A modern, efficient, and above all controllable power grid is of crucial importance when it comes to modifying and transforming the electrical energy system. The feed-in of decentralized generated renewable power and the electrification of heating requirements and individual mobility call for new solutions for the distribution grid. The 700 or so employees of BKW Power Grid are developing these solutions and capitalizing on the opportunities of digitalization in the process. The trend towards using renewable power instead of fossil fuels requires expansion of grid capacity and improvement of grid control in many locations throughout Switzerland. This is the core business of the approximately 1,500 employees of BKW Infra Services, the competency area for comprehensive, high-quality grid services. In addition to the safe installation of overhead lines and the operation of low to extra high voltage grids, BKW Infra Services also offers other overall

grid and environment services relating to water, telecommunications, and transportation.

In terms of trailblazing solutions in the energy sector, BKW is involved in cooperative ventures such as Swiss Energypark, a platform for innovation, research, and demonstration, and the Endaprim^{TM6} technology and innovation hub, which primarily focuses on smart grid control. The implementation of modern microgrids also forms part of their portfolio. These can be used to bring together energy production from renewable energies, energy storage, and smart distribution on a local level. Smart metering technologies and the Solar-LogTM software and hardware solution from BKW are used to make this possible. Solar-LogTM is sold in 125 countries and ensures optimum operation from solar power plants.

Reducing its own energy consumption is a priority for BKW, which has its own vehicle fleet and several sites that can be described as large-scale energy consumers⁷. The company aspires to increase energy efficiency, conserve energy, and bolster its reliance on renewable energy so that the footprint caused by energy consumption is reduced.

Products and services with added energy value

BKW's growth strategy is driven by society's rising demand for renewable energy and energy efficiency solutions. The company wants to play its part in ensuring that clean and efficiently generated energy continues to be available everywhere and at all times. BKW has set for itself two objectives for its expansion of renewable energy: By 2023, 75 percent of BKW's installed production capacity is to come from renewable energies, and by 2026 the installed renewable capacity of onshore wind and photovoltaic plants is expected to grow from 0.7 GW today to 1 GW. In addition to its own expansion of renewable energy capacity, BKW is laying

the foundation for further expansion with a state-of-the-art, reliable distribution grid. For example, every night for more than two years, algorithms developed by BKW Power Grid have been performing the calculations required for BKW's power grid in order to determine free grid capacity for connecting new photovoltaic installations.

With energy prices on the rise, reducing the energy consumed by buildings and infrastructure is becoming increasingly important. BKW's Services portfolio is meeting this demand. It offers its customers energy monitoring and energy management, operational optimizations of plants or replacements for heat generation plants, billing models such as "Association for own consumption (ZEV)" and data-based solutions such as building automation and Building Information Modeling (BIM). A significant amount of energy can be saved in this way, especially in existing buildings, which helps achieve the federal government's energy strategy. BKW's energy consultants are accredited energy specialists of act Cleantech Agency Schweiz.



Activities and progress in 2021

Together with our Group companies and partners, BKW operates some 50 hydroelectric plants in Switzerland and Italy with a total output of roughly 1,700 megawatts (MW). BKW generated more than 3,700 gigawatt hours (GWh) of electricity in 2021 with this continuously optimized power plant portfolio. In 2021, the company commissioned the Wiler-Kippel hydroelectric plant, which now provides homegrown energy to meet the power needs of some 2,800 households. In addition, construction work at the Sousbach and Augand hydroelectric plants (both in the canton of Bern) and Idro Arvigo (canton of Grisons) has progressed further. In addition, BKW owns some 700 MW of installed capacity in onshore wind and photovoltaics in Switzerland, Germany, France, Italy, and Norway. In a partnership with a project developer, in



More information
at www.swiss-energypark.ch

1 GW

The installed renewable capacity of onshore wind and photovoltaic installations is expected to grow from 0.7 GW today to 1 GW by 2026.

> 3,700 GWh

In 2021, BKW generated more than 3,700 GWh of electricity with its hydroelectric plants.

⁶ With the growth of renewable energies and decarbonization, the issues of energy, infrastructure, and buildings are converging. Planning and operating these systems are becoming complex tasks that require support through simulations and analytics. BKW's technology and innovation hub (EndaprimTM) is developing solutions to face this new reality.

⁷ As large-scale energy consumers, businesses are under the legal obligation in most cantons to increase their efficiency. Any company that consumes more than 5 GWh/year in heat energy or more than 0.5 GWh/year in electrical energy is classified as a large-scale energy consumer.

2021 BKW acquired its first photovoltaic projects in southern Italy. Thanks to these commissioned projects and acquisitions, BKW is well placed to reach the expansion targets it set for itself.

With its Home Energy solution, which posted growth of 30 percent last year, BKW offers a tailor-made energy system for the home where customers can have a solar power plant installed and add heat pumps or charging stations for electric mobility and thus create an optimally coordinated and sustainable energy system. In the business customer segment, BKW is developing smart energy services on an ongoing basis and since last year has also been offering contracting services for large-scale photovoltaic systems. BKW Building Solutions in turn made a significant contribution to increasing the share of renewable energy in the energy mix in 2021. It installed around 300 new photovoltaic systems on top of single-family homes and apartment buildings as well as on large industrial facilities. It also helped increase energy efficiency and reduce dependence on fossil fuels by installing more than 200 heat pumps in residential and industrial buildings. Furthermore, BKW uses standardized building automation solutions to monitor and optimize energy consumption for customers. For example, long-term savings of around 400 MWh of heat and 1,600 MWh of power were achieved at a company operating at around 150 sites throughout Switzerland.

With an eye toward trailblazing solutions, BKW 2021 experts developed HIVE™, an automated, cellular energy management system, in the Endaprim™ Technology and Innovation Hub. The HIVE™ application interactively demonstrates on a local level how electromobility, decentralized renewable power production, and coordinated use of local batteries will affect the energy system of the future and how the environmental impact will change, among other effects. HIVE™ enables modeling of scenarios so that the corresponding municipalities can optimize their local energy system and make it more sustainable. Tests at Swiss Energypark have confirmed the functional operability of the system.



Outlook

BKW will continue to support its customers in achieving their energy-saving and decarbonization goals in 2022. Expansion of new renewable energy production is being accelerated in accordance with the strategy. Expansion of the portfolio will take place largely through the acquisition and implementation of wind and solar energy projects in the focus countries of Switzerland, Germany, Italy, France, Norway, Sweden, Spain, and Portugal. In the area of sustainable heating solutions, BKW will continue to expand its product range in response to rising demand. In regard to solutions for buildings, installation capacity for decentralized photovoltaic systems will be significantly expanded next year. Activities in grid planning, grid operation, and grid construc-

Around 300

photovoltaic systems were installed by BKW Building Solutions in 2021



More information at www.home-energy.ch



BKW Building Solutions installing a building automation system

tion will continue. New opportunities are opening up primarily due to the increased and optimized use of digital solutions.

To support its customers, BKW will intensify its activities in the areas of energy consulting, energy monitoring, and energy efficiency. BKW will also increasingly implement building automation projects, thereby contributing to measurable energy conservation. The company is planning on offering more digital consulting services and workshops that will help customers make their real estate portfolio more energy efficient. To achieve this, BKW is further expanding the collaboration within its own network.

BKW energy consumption

The company also strives to make more careful and energy-efficient use of natural resources in its operations. Electricity and heating energy are required for the operation of server systems and offices with corresponding lighting and ICT workstations. The Corporate Real Estate division, which is responsible for BKW's buildings, is continuously looking for ways to reduce energy consumption, to replace fossil-fuel fired systems with low-CO₂ systems, and to make optimum use of potential in photovoltaics and waste heat. Since the majority of BKW's sites are rental properties, opportunities to save energy are mainly driven through changes in behavior.

To ensure long-term efficiency gains, energy-saving measures have been and are being consistently implemented in BKW's larger buildings. During the conversion and construction of new commercial and residential properties, renewable energies are used wherever possible, and compliance with building standards such as Minergie is aspired to.



Activities and progress in 2021

For some time now, the Corporate Real Estate division has been taking action to reduce

energy consumption in BKW's buildings and to convert buildings to the use of renewable energy. Some of BKW's operational properties in Switzerland are defined as large-scale energy consumers. As in previous years, BKW achieved the associated 2021 efficiency target by implementing a variety of different measures, including the replacement of lamps and operation optimization of heating and ventilation systems.

The maintenance depot in Luterbach, which was fully commissioned in 2021, is an example of a property with a renewable and efficient energy supply: The power production of the newly constructed photovoltaic system exceeds the average annual electricity consumption of the maintenance depot, while a pellet heating system ensures that heat production is free of CO₂ emissions. And thanks to rainwater harvesting, the consumption of drinking water has been significantly reduced.

As part of the data collection for the greenhouse gas footprint calculation, BKW systematically recorded its energy consumption for the first time in 2021⁸. The results can be seen in the table below. Since some three-quarters of all employees work in the Services segment, this is also where the most energy is consumed.

Overview of energy consumption by business segment

Energy consumption in GWh	Energy	Grid	Services	Total
Electricity consumption	2.54	4.33	7.37	14.24
– thereof renewable	0.03	0.10	1.03	1.16
Heating energy consumption	2.29	3.00	11.94	17.24
– thereof renewable	0.00	0.17	0.83	1.00
Fuels	3.87	5.42	60.77	70.06
Total energy consumption	8.70	12.76	80.08	101.53

⁸ Direct collection of data from 54 companies, which accounted for some 80 percent of the BKW Group's employees. The values for the entire Group were extrapolated on the basis of the number of employees.



Outlook

Data collection on energy consumption will continue in the coming years. At the same time, BKW will work on increasing internal data transparency and on improving data quality so that targeted measures to reduce energy consumption can be defined. Based on the data collected, energy-conservation measures will be specified and implemented in the coming year together with representatives from individual business segments. The collected data shows that one priority is the fuel consumption of the company's own fleet. Central fleet management enables

reductions in fuel consumption to be achieved through efficient vehicles, electrification, and consolidation of journeys.

The commitment related to the large-scale energy consumer status will be continued in 2022. The objective is to reach the efficiency target again. The current power supply contract for BKW's headquarters with the 100 percent renewable Energy Origin Water Star is also continuing. BKW is investigating the purchase of renewable electricity for additional sites.



SDG 3: Good health and well-being

Why SDG 3 is relevant for BKW

The 2021 financial year was also dominated by the COVID-19 pandemic, which has brought the issue of health to the forefront of global consciousness. However, SDG 3 is also essential for BKW in ways that go beyond this. The company operates in demanding fields of activity where employees are exposed to a variety of different health and safety risks. These include handling electricity, hazardous materials, and working at height. As an employer, BKW has a duty of care in this context. Safety is therefore of utmost importance, along with maintaining and fostering the physical and mental health of employees.

The many challenges of sustainable design of urban living spaces offer opportunities for the wide array of skill sets at BKW. With all of this in mind, BKW develops products and innovations that further the health and well-being of society. These include lighting solutions to increase personal and traffic safety, mitigation or removal of

asbestos in properties to prevent illness, and support for a healthy indoor climate through modern ventilation systems.

A safe working environment

The company's objective is to avoid accidents, prevent injuries to health promptly, and to ensure that occupational health and safety measures are implemented in compliance with the law at all times. The Group Executive Board defines the safety policy and the associated minimum standards for health and safety for all BKW Group companies. In addition to the Group Executive Board, it is primarily the senior management of each individual Group company that is ultimately responsible for ensuring occupational health and safety as well as compliance with all legal regulations. In all companies, selected employees, who are often in management positions, assume the role of CPOHS (contact person for occupational health and safety) or SO (safety officer). They are the points of contact for any

questions relating to occupational health and safety, and they also conduct training courses, advise management on occupational health and safety, and form the interface to the specialist units in the individual competency areas.

The Group companies are supported by a specialist unit for occupational health and safety, which includes members from all competency areas. They meet as required, but once per quarter at a minimum, and are responsible for monitoring the key figures and effectiveness of the measures taken, facilitating exchange of experience, developing guidelines and recommendations for action, and launching campaigns and training courses for nurturing a general culture of safety. The specialist unit is the point of contact for all safety-related issues within BKW. BKW's CFO ensures that it has direct access to the Group Executive Board. At least once per year, the specialist unit issues an annual report on the safety situation in the Group.



Activities and progress in 2021

Ongoing employee awareness and training were at the heart of the 2021 activities which were designed to prevent accidents and keep awareness of a safe working environment at a high level. Due to differences in requirements and areas of work, different areas of focus were defined in the various competency areas.

BKW Power Grid held several specific safety days and events on occupational health and safety issues, the aim of which was to promote active dialogue among employees. Many internal and external audits and construction site inspections took place. Existing safety requirements were also made more accessible on digital platforms in order to provide employees with timely and direct access to the most up-to-date information.

BKW Building Solutions put its focus on young people and addressed occupational health and safety as a key topic in a retreat held for trainees and apprentices, which was attended by 120 participants. To raise awareness throughout the organization, a "Safety First" film series was also launched, in which all vitally important rules for building technicians were filmed as brief video clips. An FCOS⁹-compliant safety system is also being rolled out at the BKW Building Solutions companies. It has been implemented at around 80 percent of a total of 50 companies.

Another step forward in 2021 was the rollout of a reporting system for unsafe situations and near misses in the Arnold Group, which is part of the BKW Infra Services network. After just six months, the system received more than 60 reports from employees, and 58 of the reports were resolved within two weeks. In order to further strengthen the safety culture, Arnold AG had itself audited according to the Safety Culture Ladder (SCL) certification method. As the first company registered in Switzerland and with an audit result of 98.98 percent, it achieved the first certification level 3. LTB Leitungsbau GmbH, a German company of BKW Infra Services, has also been certified according to SCL level 3 for several years.

The Occupational Health and Safety unit initiated the "Your Health is Close to Our Heart" campaign to raise employee awareness of the challenges of the pandemic. This provided valuable suggestions and ideas for dealing with the pandemic situation and drew attention to internal and external advisory resources. The unit also held a two-day conference in which experiences in regard to topics such as good visibility, unobstructed escape routes, and conflict resolution were exchanged among all safety officers and managers of the BKW Group.



Outlook

The primary goal of all future activities continues to be the prevention and reduction of accidents. To effectively pursue this goal, one focus area in 2022 will be the standardization of Group-wide accident recording and the introduction and collection of key figures throughout the

Group. This is intended to create transparency, enable continuous improvement, and define even more specific measures.

The concept of prevention will continue to be underscored through training and continuing education as well as special safety days and events. In-depth accident investigations, targeted campaigns, and systematic audits will also help to significantly reduce accidents in the future. On a higher level, the specialist unit will again organize platforms for exchanging experiences between safety officers and managers. A Group-wide campaign with a focus on a new safety topic will also be implemented again in 2022.

A healthy working environment

BKW has been supporting its employees with corporate health management since 2007. Through working closely with external partner organizations and specialists, employees are provided with varied and confidential access to a range of services. The corporate health management is based on the legal requirements and the quality criteria of Friendly Workspace of Health Promotion Switzerland as well as the quality criteria for fostering workplace health of the European Network for Workplace Health Promotion (ENWHP).

The corporate health management is part of Human Resources and is open to all employees. The resources correspond to the areas of "Promoting Health," "Maintaining Health," and "Regaining Health." The aim is to promote and maintain health, performance, and the ability of employees to work, to prevent and reduce absences, and to enable employees with health problems or who have had accidents to return to work. Employees who take responsibility for their own health and well-being are to be supported and encouraged.



Activities and progress in 2021

Due to the rapid growth and diversity of the BKW Group, there are currently neither synchronized activities nor uniform key figures and indicators in the corporate health management. In 2021, a Group-level corporate health management team of specialists was assembled to consolidate efforts from the various competency areas and take advantage of synergies. The team of specialists meets once per quarter and consists of representatives from the various Human Resources units at BKW.

"Promoting Health": Since 2014, BKW has offered interested employees a wide range of exercise options. Due to the pandemic and the rise in



remote work, various health-fostering courses in the areas of exercise, structuring work and break times, and ergonomics were held online in 2020. This combined offer was continued in 2021. Thanks to the expanded offerings, especially in terms of online resources, BKW was able to reach more employees and raise their awareness.

"Maintaining Health": An internal point of contact is available to employees for questions relating to physical and mental health as well as social well-being. In regard to issues such as childcare and family member care, BKW works with the non-profit organization profawo. BKW also recently began a partnership with movis, a company that specializes in advising employees on health and social issues. The advice provided is confidential, and employees can quickly receive the support they need.

"Regaining Health": BKW maintains an internal company case management with the goal of enabling employees with health problems or who have experienced an accident to return to work quickly. A professional internal and external network of specialists and agencies (such as a company doctor, insurance companies) is available to provide support. In addition, the "Resit" reintegration program was again able to offer alternative solutions to several employees who are no longer able to carry out their usual activities for health reasons.



Outlook

In 2022, BKW intends to press ahead with the implementation of the Friendly Workspace quality criteria of Health Promotion Switzerland. Meaningful key figures and indicators are to be developed and collected for BKW in this context. On this basis, targeted analyses can be carried out, action areas can be identified, and effective corporate health management measures can be drafted and implemented.

Products and services for the promotion of health and well-being

Through its products and services, BKW intends to provide added value that also enhances the health and well-being of society, such as illumination of public spaces, noise pollution studies, or renovation of sites and buildings. Development of these products takes place on a decentralized basis within the Group companies which have their own specific expertise and continue to develop their competency areas on their own. In doing so, they align themselves closely to their customers' needs and utilize the exchanges of experience in the BKW network and in association memberships in order to take current trends and developments into consideration.



Activities and progress in 2021

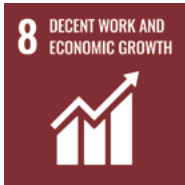
In 2021, traffic infrastructure was made safer through a variety of lighting solutions. For example, standalone solar-powered lights can be appropriately used on large road construction projects or along bicycle paths in order to ensure all road users remain safe. Precisely controlled LED luminaires help prevent accidents by providing good illumination and high visibility at intersections and pedestrian crossings. The positive side effects of this are reduced energy consumption and a reduction in light emissions.

Pollutants in buildings, such as asbestos, radon, mold, or even noise, can have negative impacts on people's health. BKW companies carried out a wide range of projects to reduce these risks, including building pollutant investigations, preparation of noise studies, and surveys and monitoring for radon remediation in public buildings. Contaminated sites were investigated, and demolition work was monitored by experts on industrial sites with the aim of preparing currently contaminated areas for later residential use. BKW Engineering made a direct contribution to a reliable healthcare infrastructure through its work on the architectural and project planning for the modernization of a hospital in Mainz.



Outlook

Urbanization and climate change impacts will pose ever-greater challenges for the well-being of humanity in the future. Various BKW companies will therefore continue to offer proven solutions while developing new solutions that promote health and safety in living and working spaces. In this context, the health aspects are to be more closely considered together with other benefits, such as energy or material efficiency. The many decentralized developments and projects in the BKW network will also be more intensively discussed in the coming year.



SDG 8: Decent work and economic growth

Why SDG 8 is relevant for BKW

BKW can achieve corporate success and its targeted growth only with motivated and competent employees. Positioning BKW as an attractive employer is therefore a key step in attracting and retaining these employees. In turn, BKW wants to offer a working environment that features opportunities to develop, room for entrepreneurial thought and action, equality of opportunity, and freedom from discrimination.

In addition to our own working environment, today's global, wide-ranging, and highly complex supply chains offer powerful leverage for making global progress on sustainable development. That is why BKW relies on cooperation and collaboration with all its business partners. Improving sustainability aspects offers benefits that include reducing risks in the supply chain, protecting the company's reputation, and gaining

advantages in the market when consumers demand responsible business conduct.

A fair and nurturing work environment

Our human resources policy is based on encouraging employees to think like entrepreneurs and take responsibility for their actions, with ongoing development of expertise and fostering of labor market readiness, retention of talent, and measures to prevent the loss of key personnel. This is the standard to which BKW aspires in its human resources policy. Future employee and management development is aligned with BKW's strategy, core values, and employer promise. Employees and managers throughout the company hold development talks on a regular basis. As set out in BKW's salary policy, salaries are determined without regard to gender, age, nationality, or other demographic or personal characteristics.



More information at
www.bkw.ch/workingatbkw

Managers are responsible for creating a fair and nurturing working environment with support from the Human Resources departments of the various competency areas. HR representatives from all competency areas exchange information on a monthly basis on the HR Board.



Activities and progress in 2021

In 2021, the Human Resources departments of the competency areas jointly defined new key and leadership competencies, which are to be used as the basis for future development offerings. The initiative is putting its focus on leadership development because leaders act as role models and multipliers for the entire organization.

BKW also relies on the initiative of its employees when it comes to their own professional development. A Digital Learning Week featuring a wide range of learning opportunities from many different competency areas was held for the first time in 2021. The employees themselves contributed with specific topics, and awareness of "lifelong learning" was also raised. The ideas@work program was also continued. This involves employees devoting a portion of their working time to interdisciplinary innovation projects with internal and external support.

Equal pay for men and women is a matter of course for BKW and demonstrates the fair working environment. The Group Executive Board has clearly formulated the requirement that individual salary increases are not only to be used for top performers but also for employees who need to catch up with others in terms of salary and also to ensure equal pay. Salaries are already reviewed on an annual basis in all competency areas. In 2021, the legally required equal pay analysis was carried out again in Switzerland. The results confirm to BKW that the requirements of the Swiss Gender Equality Act are being complied with in the analyzed companies.



Outlook

While BKW continues to support its employees in their individual and external training and development, in the future there will be a greater focus on learning and development in daily working life. One focus will be digital learning. These resources will be developed according to the employee life cycle. To take

greater account of demographic trends within BKW, the focus here will be on employees in the second half of life. The development of young talent also remains crucial for BKW. To counteract the skills shortage in skilled trades such as heating, ventilation, and air conditioning (HVAC), plumbing, grid electrical systems, and electrical engineering, BKW continues to offer a wide range of apprenticeships.

In 2022 BKW plans to pave the way for equal pay so that statements can be made on this throughout BKW. Fair payment of all interns at BKW is also related to this issue. The next step will be to conduct an overarching analysis across all competency areas and to discuss the topic of fair compensation in the HR Board.

A general priority for 2022 will be the development of targets, actions, and key figures for employee development and equal pay. The aim is to ensure an effective and efficient process and to demonstrate progress in a manner that can be tracked.

Supply chain management

BKW procures some 90 percent of the of the required first-tier goods and services from suppliers in Switzerland. In addition to legally compliant conduct, BKW fosters and compels suppliers to comply with the BKW Suppliers' Code. In the context of this code, suppliers and service providers undertake to assume responsibility for sustainability issues. The Suppliers' Code of Conduct specifically covers respect for human rights, good working conditions, fair competition, environmental protection, and anti-corruption.

To further advance and integrate the issue of sustainability in the supply chain, BKW established a partnership with EcoVadis in 2020 and has since intensified this relationship. The EcoVadis platform enables BKW to assess the sustainability performance of suppliers in relation to the environment, ethics, human rights, working conditions, and sustainable procurement more systematically and also to derive and track any ensuing improvements. The platform is used at several points in the procurement process – as a source of information for supplier qualification and initial assessment and for development

90%

Percentage of the required first-tier goods and services that are procured from suppliers in Switzerland.

meetings together with suppliers. It also helps to identify, reduce, and manage potential sustainability risks in the supply chain.

In addition to EcoVadis, all new suppliers must complete a self-declaration that asks questions covering sustainability, including ethics, the environment, and labor and human rights. This self-declaration is part of the contract together with the General Terms and Conditions of Purchase, which also contain an explicit annex on sustainability issues. To establish sustainability standards in the supply chain, BKW is also involved in cross-industry partnerships such as the "Sustainable Supply Chain Management" joint working group of the Association for Sustainable Business (öbu) and the United Nations Global Compact.



Activities and progress in 2021

After one year of partnership with EcoVadis, BKW can see the positive impact. The target set was to have rated 100 active suppliers on the platform by the end of 2021. There were two waves in which suppliers were onboarded onto EcoVadis, with the first wave including some 70 BKW suppliers and the second wave roughly 55. The focus was on major suppliers of strategic relevance. Suppliers that were already active on EcoVadis were also asked to provide their dashboard. Corporate procurement had therefore rated a total of 125 suppliers by the end of the year, exceeding the original target.

This also enabled BKW to improve its own rating on the EcoVadis platform, particularly in relation to "Sustainable Procurement." The BKW Procurement Instruction is also currently being revised and standardized across the Group, particularly with regard to sustainability aspects. Key improvements were also made in other areas, such as regarding sustainability criteria for tenders and employee training on sustainability issues. One important new feature relates to BKW's Suppliers' Code of Conduct, which was revised and made more stringent in 2021. It now explicitly refers to international standards on responsible corporate governance.



Outlook

In 2022, corporate procurement intends to further develop the Sustainable Supply Chain initiative, with a focus on four areas. First, the development and implementation of an overarching purchasing policy for BKW's purchasing organizations will provide the framework for future standards. Second, the implementation of a joint procurement scorecard for the BKW Group purchasing organization with agreed development targets and key figures and indicators for sustainability. In addition, processes and interfaces with regard to human rights due diligence in the supply chain will be analyzed and optimized in order to firmly embed such due diligence processes into everyday business routines. Cooperation with EcoVadis and ratings of additional suppliers will also continue in 2022.



More information at
[www.bkw.ch/
procurementpolicy](http://www.bkw.ch/procurementpolicy)



SDG 16: Peace, justice, and strong institutions

Why SDG 16 is relevant for BKW

BKW operates in an international environment with a large number of suppliers, business partners, and project participants and many different stakeholders. The focus of business activities is in European countries in which respect for internationally recognized human rights is already largely reflected in each country's legal requirements. BKW is nevertheless aware that its activities may entail the risk of human rights violations. The company strives to both reinforce positive influences and prevent or mitigate negative ones while also advocating respect for human rights at all times.

In this context, fair, respectful, and non-discriminatory business conduct is a matter of course for BKW. This includes transparency with regard to financial contributions for political activities that affect BKW's framework conditions and refraining from making donations to parties, politicians, and members of the authorities.

Respect for human rights in business activities

An initial analysis of BKW's business activities conducted by Compliance & Sustainability department revealed that risks of involvement in human rights violations exist primarily at two points in the value chain. In the procurement of products of specific commodity groups and from certain countries, especially at the lowest levels of the supply chain. Furthermore, through international projects for the expansion of renewable energy or through project activities with international business partners. The latter may adversely affect the cultural rights of certain vulnerable populations, for example.

Due to the diversity of these activities, compliance with human rights must be ensured in the respective functions and areas. They receive support from external providers such as EcoVadis and internal support from the Compliance & Sustainability department. BKW is committed to respecting human rights in all its activities and

has publicly affirmed this by participating in the United Nations Global Compact.



Activities and progress in 2021

From 2020 to 2021, BKW engaged in a dialogue process with the Swiss National Contact Point (NCP) for the OECD Guidelines for Multi-national Enterprises. This was triggered by a complaint from the NGO "Society for Threatened Peoples" in regard to an alleged violation of the human rights of the indigenous Sami people in Norway through a holding in a wind power project. The dialogue with the NCP was constructive, and BKW will be optimizing its approach based on this experience. The dialogue ultimately ended in success with the issuance of a joint statement. A tangible and specific outcome was implemented with the inclusion of the principle of free, prior, and informed consent of vulnerable populations in the new Code of Conduct.

An interdisciplinary team developed the basis for a training and awareness concept for the pending implementation of the fundamental revision of the Code of Conduct in 2021. In relation to international renewable energy projects, sustainability management had already contacted business development in order to incorporate human rights aspects, particularly with regard to indigenous peoples, into project selection and due diligence.

Corporate procurement also revised BKW's Suppliers' Code of Conduct, explicitly incorporating international standards such as the principles of the United Nations Global Compact and the core standards of the International Labor Organization (ILO). Corporate procurement also carried out initial checks for the risk of child labor in the supply chain.



Outlook

In 2022, the focus will be on implementing the new Code of Conduct and on the results of the dialogue process. To do this, the company is developing and offering various formats for training and raising awareness, some of which are held on a regular basis and are mandatory. Building on basic modules, the formats also plan to consider the specific requirements of the various

specialist functions. For example, there is to be an expansion in the training and awareness raising offers related to human rights in specific functions (such as energy projects in relation to indigenous peoples or child labor in procurement). This will be accompanied by a revision of the internal guidelines in regard to human rights due diligence work in relevant processes.

Measurement of the effectiveness of the actions implemented will be improved. This will include the definition of indicators, updating of existing processes, and close cooperation between sustainability and compliance management and the business units and specialist functions.

Integrity and ethical business conduct

By participating in the United Nations Global Compact, BKW is declaring its efforts to act responsibly and in accordance with the principles of sustainability. Offenses such as corruption, bribery, human rights violations, anti-competitive conduct, misuse of data, and environmental negligence go against our principles and the BKW Code of Conduct. The content of the Code of Conduct is set out in concrete terms in directives, guidelines, and work instructions. These are included in the company's policies, to which all employees have access. All new employees are required to attend training on the Code of Conduct. Internal audits verify that these training courses have been undertaken.

Responsibility for ensuring that policies remain up to date lies with Compliance management, which reports to the Chief Compliance Officer, who in turn reports to the CEO on a regular basis. The CEO and Board of Directors have also defined compliance topics on which they want to be informed on an ad hoc basis. A compliance management system (CMS) supports BKW in identifying compliance risks promptly, defining adequate measures to prevent violations of rules, and implementing such rules effectively and efficiently within the BKW Group. If employees identify compliance violations, they can contact their manager or Compliance management directly or submit a report using the anonymous and confidential whistleblower system.



More information at
[www.bkw.ch/
codeofconduct](http://www.bkw.ch/codeofconduct)



Activities and progress in 2021

In 2021, BKW updated its Code of Conduct to meet the current societal requirements and international standards regarding business conduct with integrity. Various aspects of the CMS were also further expanded last year, including internal reporting to the Group Executive Board and the Board of Directors and a clearer definition of responsibilities. As is the case every year, several mandatory compliance training courses for managers were also offered in 2021. This training includes anti-corruption measures.

The whistleblower system was used to submit 48 reports in 2021. These reports were primarily related to suspected violations of the Code of Conduct. All reports were resolved through discussions with all parties involved as well as jointly agreed measures.



Outlook

In 2022, the focus will be on further developing the compliance management system and on raising awareness of the whistleblower system throughout the Group. To this end, Compliance, Human Resources, and Communications will jointly implement training and awareness campaigns in the company next year. The new Code of Conduct will come into force and be rolled out across BKW. All employees are required to regularly come to grips with its significance for their daily work. To ensure the effectiveness of the measures undertaken, transparency in regard to which employees (roles and functions) have attended which training courses is to be improved. The progress will be reviewed in internal audits. Recommendations for training should be based on risk, that is, with a focus on topics that are particularly relevant to a function in terms of business conduct with integrity (such as data privacy for employees in customer support and environmental protection for employees in power plant operations).

Summary information on SDGs 6, 9, 11, 12, and 15

Explanation of relevance for BKW

Analysis of the greatest impacts along the value chain showed that BKW, as an energy and infrastructure service provider, can make a contribution to additional global challenges including reliable drinking water supplies (SDG 6), resilient infrastructures (SDG 9), livable residential areas (SDG 11), resource conservation (SDG 12), and healthy ecosystems (SDG 15). As a diverse

network, BKW offers a range of competencies and relevant products and services which contribute to the achievement of these goals. The challenges associated with achieving the SDGs thus represent opportunities for BKW's business model.

On the following pages, the significance of each SDG for BKW and an exemplary contribution it makes for each SDG are presented in brief.

BKW's contributions to SDGs 6, 9, 11, 12, and 15 in 2021



SDG 6: Clean water and sanitation

Everyone needs drinking water to live, and a well-functioning drinking water supply and a wastewater disposal system are part of

the basic needs of our society. The drinking water grids in Switzerland are decades old in some cases, leading to water losses of around 12 percent¹⁰. BKW is helping to maintain the critical drinking and firefighting water infrastructure with services such as a system for online monitoring of water grids, the smart LORNO¹¹ leak detection system in hydrants, and resource-conserving pipeline rehabilitation. In addition, rapid detection and repair of leaks result in cost savings for customers, which are often municipalities.

Water is also essential to the reliable operation of hydroelectric plants. In 2021, BKW reduced the associated impact on water-based ecosystems by

taking part in ecological restoration projects and by ensuring that fish will be able to migrate past its power plants unencumbered by 2030. It also improves the impairments caused by hydropeaking and sediment regime below the power plants.



BKW Infra Services is committed to the water infrastructure of the future. In 2021, BKW Infra Services company Hinni AG installed the latest generation of the LORNO control system with the FOX option at original LORNO customer Altis Group SA. The system can correlate between hydrants in order to precisely determine the location of leaks. It will be put into service imminently, and the customer already achieved some good results during the test phase, in that the location of existing leaks could be determined. A close cooperation between Altis Group SA and Hinni AG is currently running a campaign to use data analysis and field investigations to detect and locate leaks and then reduce water losses through repairs.



¹⁰Swiss Gas and Water Association, "Statistical Surveys of Water Utilities in Switzerland, Operating Year 2019."

¹¹LORNO is a smart leak detection system that is installed in hydrants. It uses radio data transmission to automatically send information from the drinking water grid to the server. Users are informed by e-mail and/or SMS and can view the details online.



SDG 9: Industry, innovation, and infrastructure

BKW's business model includes the construction of infrastructure that is reliable and resilient in regard to decentralization of the

energy supply and conceivable risks posed by climate change and cyber-attacks. The company is working on smart distribution grids and digital solutions to prepare the grid infrastructure for challenges such as a growing number of "prosumers"¹² decentralized generation, and electrification of heating provision and mobility.

Alongside smart electricity distribution grids, the need for reliable data and communication networks, efficient, environmentally friendly lighting solutions, and resource-conserving buildings also offer business opportunities for BKW as an infrastructure service provider. BKW will use the "Building Information Modeling" (BIM) method in many of its projects in this area. This method maps reality as a digital data model which can be used to simulate building variants, identify potential conflicts between various

infrastructures at an early stage, and use resources sparingly and in a targeted manner.

The year 2021 also demonstrated the importance of tasks such as heavy rainfall protection, drainage planning, and flood protection in residential areas. By drawing up and implementing action plans, BKW is helping to avoid and reduce damage to people, the environment, and infrastructure during extreme weather events.



Together with Deutsche Bahn subsidiary DB Energie, BKW implemented a pilot project using the BIM method in 2021. A 132-kilovolt overhead transmission line from the 1950s had to be replaced in the Basel metropolitan area. The traction power line runs through an area in which infrastructure facilities, commercial buildings, and residential buildings are packed closely together. To meet the challenges of this project, the BIM method was used for the first time for an overhead line project in Germany. This was a test case for the added value that the digital planning and construction of overhead transmission lines can bring. DB Energie's objective was to gather relevant experience together with BKW.

¹²A consumer who is also a producer. An example of this would be a home that obtains power from the grid but also uses a photovoltaic system to produce its own electricity, which it feeds into the grid from time to time.



SDG 11: Sustainable cities and communities

In addition to growth in residential areas, home and work environments, along with infrastructure and human behavior, are becoming increasingly interconnected.

These spaces require energy-efficient buildings, integrated network infrastructures, decentralized renewable energy generation, and modern transport solutions. BKW offers answers to these challenges through its expertise in transport and grid planning, residential water management, flood protection, and wood construction systems. Sustainable architecture is another key core competency and the domain of BKW Engineering in particular. The trademarked term of *supergreen®* represents an integrated concept that includes energy and resource consumption, factors affecting human health, and quality of living spaces.



With the *supergreen®* concept, BKW Engineering company ingenhoven architects won a competition for a new urban neighborhood in Munich in 2021. The neighborhood is intended to be both vibrant and diverse and is to consist of apartments, stores, restaurants, child daycare centers, a nursing home, and offices. A wide variety of green spaces, a garden accessible to all residents, and green roofs and terraces set high ecological standards. The use of recycled concrete, photovoltaic power generation, smart use of district heating, and a cradle-to-cradle approach¹³ make for a climate-neutral and energy-optimized neighborhood. Some 40 percent of the apartments will be subsidized or moderately priced in accordance with the Socially Responsible Land Use Act – making the new neighborhood truly a city for all. This urban neighborhood is making a sizable contribution to sustainable development, as it also helps achieve SDGs 7, 12, and 13 in addition to SDG 11.

¹³ "From cradle to cradle," design principle for a systematic circular economy



SDG 12: Responsible consumption and production

The production plants and infrastructure facilities that BKW constructs are built to be used for decades. In

addition, predictive maintenance and replacement of individual components extend the service life of functional systems. When plants reach the end of their lives, BKW looks for ways to reuse materials and is committed to waste avoidance and recycling. For example, this is how the dismantling of the Mühleberg Nuclear Power Plant was handled. Materials are reused or recycled whenever reasonable and possible. The “splinter protection stones”¹⁴ were cleaned and tested repeatedly for radioactivity to ensure that they could be safely used elsewhere. They were then crushed and processed into cement in several stages. This enabled 1,200 metric tons of concrete to be retained in

the material cycle for use in new structures. The two block transformers are also valuable resources, and one of them was reused in another power plant. The second was professionally dismantled and recycled.



Extending the life of batteries from electric cars: In a joint pilot project, BKW Energy and start-up sun2wheel are testing solutions for more sustainable production and consumption patterns. After an electric car has traveled approximately 300,000 kilometers, the batteries can be given a second use and used for another 10 years as storage units for surplus solar power, which makes it possible to better deal with load peaks in power consumption. This project helps conserve resources in two different ways: on the one hand, the service life of existing products is extended in a way that makes sense, and on the other hand, no additional products are required that would otherwise assume these functions.



¹⁴Big concrete elements that would have protected the surrounding area from fractured turbine parts in the event of mechanical failure.



SDG 15: Life on land

In the construction of power plants or infrastructure projects, BKW keeps the impact on ecosystems and landscapes to a minimum. The majority of BKW power

plants in Switzerland are certified as "nature-made star" or "naturemade basic," and around 40 projects for the ecological renovation of hydroelectric plants are currently in progress. In addition to these renovation projects, the eco fund is a key tool for restoring natural habitats and fostering biodiversity. In roughly 300 projects to date, floodplain landscapes have been enhanced and rivers revitalized, dry stone walls restored, and invasive species combated. All of this ensures that valuable ecosystems and refuges for protected species and other wildlife are created.



From planning to completion, revitalization work on aquatic habitats often takes several years. With support from the eco fund,

ecological enhancement of the Simme River in the municipality of Boltigen began in 2016. The goal was to create a new river landscape with hedgerows and small structures as well as a floodplain forest that helps various fish and amphibian species to flourish. By the end of 2020, additional project optimizations had taken place, such as reactivation of the side branch that had been cut off in the meantime, and additional rootstocks were grafted. This created a good basis for the development of a floodplain landscape that could thrive on its own.

In addition to specific revitalization projects, the eco fund is continuously working to fight the spread of invasive neophytes. These can jeopardize native biodiversity, destabilize stream banks, and damage buildings, and can even be hazardous to human health. The eco fund and its various partners have been combating these foreign plants for over ten years and have therefore contributed to healthy native ecosystems.



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