

BKW Group  
Annual Report 2011



The BKW Group is one of Switzerland's largest energy companies. It employs more than 2,800 people and covers all stages of energy supply: from production and transmission to trading and distribution. Directly and indirectly via its distribution partners, BKW supplies power to more than a million people. BKW's production portfolio covers hydroelectric power plants, a nuclear power plant, a gas-fired combined-cycle power plant and new renewable energy facilities.

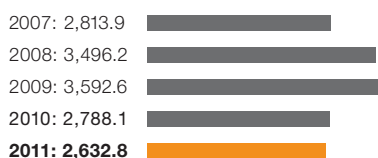


# Facts & Figures 2011

## BKW Group

### Total operating revenue

CHF millions



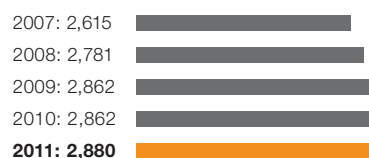
### Net loss/profit

CHF millions



### Number of employees

Full-time equivalents



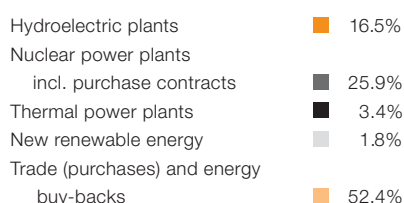
### Electricity business

GWh	2011	2010 restated	2009	2008	2007
<b>Sales</b>					
Electricity sales Switzerland	8,186	8,153	8,075	7,978	7,760
Electricity sales International	1,630	1,838	5,768	5,201	4,835
Electricity trading	10,332	11,838	12,638	11,882	10,842
Pump/substitution energy	295	331	509	536	465
Transmission losses/own consumption	202	236	265	372	317
Direct sales from financial interests	76	111	55	0	0
<b>Total</b>	<b>20,721</b>	<b>22,507</b>	<b>27,310</b>	<b>25,969</b>	<b>24,219</b>
<b>Generation and purchases (incl. financial interests)</b>					
Hydroelectric plants	3,406	3,743	4,052	4,012	3,875
Nuclear power plants incl. purchase contracts	5,373	5,921	5,784	5,884	5,799
Thermal power plants	703	700	648	375	0
New renewable energy	383	188	94	28	14
Trade (purchases) and energy buy-backs	10,856	11,955	16,732	15,670	14,531
<b>Total</b>	<b>20,721</b>	<b>22,507</b>	<b>27,310</b>	<b>25,969</b>	<b>24,219</b>

#### Sales 2011



#### Generation and purchases 2011



## Financials

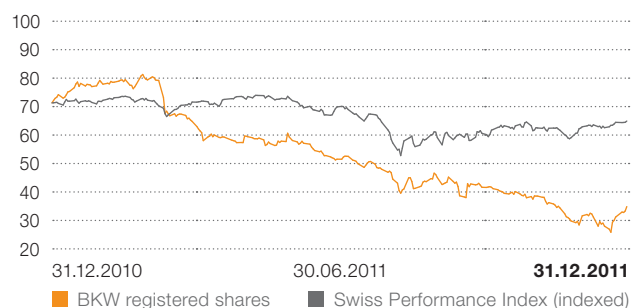
CHF millions	2011	2010 restated	2009	2008	2007
Total operating revenue	2,632.8	2,788.1	3,592.6	3,496.2	2,813.9
Operating profit before depreciation, amortisation and impairment	138.1	474.1	501.6	471.3	412.6
Net profit/loss	-66.2	228.3	298.5	138.7	226.9
Cash flow from operating activities	292.4	274.8	602.7	242.5	362.1
Purchase of property, plant and equipment	256.8	317.7	289.7	270.3	211.5
Balance sheet total	7,082.9	6,569.6	6,519.0	5,989.3	5,868.3
Shareholders' equity	2,654.9	2,904.7	3,244.3	3,069.8	3,104.9
as % of balance sheet total	37.5	44.2	49.8	51.3	52.9

## Key figures per share

CHF	2011	2010	2009	2008	2007
Par value	2.50	2.50	2.50	2.50	2.50
Share price					
Year-end price	36.45	70.70	80.50	102.00	144.00
Year high	79.95	82.85	108.00	159.50	148.00
Year low	28.00	62.90	63.35	90.00	114.40
Net loss/profit (BKW shareholders' portion)	-1.44	4.54	5.74	2.65	4.36
Equity per share (BKW shareholders' portion)	55.22	60.57	61.87	58.63	59.43
Market capitalisation in CHF millions	1,723.4	3,359.9	4,190.5	5,298.3	7,463.6

Due to the disposal of the sales business in Germany as of 1 January 2011, total operating revenue, operating profit and the energy statistics for 2010 were adjusted by these activities but not for the 2007–2009 financial years; hence there is limited scope for comparison.

## Performance of the BKW share 31.12.2010–31.12.2011



## Shareholders

Canton of Berne	52.91%
Groupe E SA	10.07%
E.ON Energie AG	7.07%
Treasury stock	9.83%
Other	20.12%



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→ Cover picture: New Mühleberg East substation – the Mühleberg East and Mühleberg West outdoor installations, built more than 40 years ago, were replaced by modern, compact interior facilities. The brand-new installation is scheduled to go into operation in the second half of 2012.

Sources of energy

Heart's desire

People who have dreams also have goals in mind. It takes tenacity, motivation and energy to achieve these goals.

In this year's Annual Report, people talk about their aspirations and where they find the energy to follow their dreams.

BKW's goal is to make life easier for people and help them manage their day-to-day tasks more efficiently thanks to a reliable, balanced supply of electricity, leaving them with more energy to pursue their dreams.



## Foreword

### 2050 energy policy in the face of global developments



→ Urs Gasche, Chairman of the Board (left), and Kurt Rohrbach, CEO

Last year the boundary conditions for the Swiss electricity industry changed at an unprecedented pace. Following the nuclear accident in Fukushima, nuclear power plants are unlikely to find political favour in Switzerland for some time to come. This means that, from 2020, our country must gradually replace some 40% of its electricity production capacities without resorting to this important technology.

Switzerland's future electricity landscape needs to be reshaped. For the electricity industry, the scenario presented by the Swiss Confederation is just one of a number of possible scenarios and the BKW Group<sup>1</sup> has no wish to base its future actions on a

single scenario. Our company is therefore formulating its strategy with a view to addressing a range of different developments and trends. In energy policy terms, Switzerland is not an island, and our business activities are dependent on what happens on the global energy markets. In many respects it is unclear where these developments are heading. As the UN Climate Summit held in Durban in December 2011 showed, there is no global approach to energy issues. While we in the industrialised world want to change the existing supply system to make it more sustainable, 1.5 billion people around the world are still struggling to gain access to electricity. Naturally, their priorities differ from ours.

→ <sup>1</sup> The BKW Group comprises BKW Inc. and its Group companies. For easier reading, these are all referred to in the following report as "BKW". Where the text relates specifically to BKW Inc. or BKW FMB Energy Ltd, this is expressly mentioned.



Apart from Switzerland, only Germany has so far opted to withdraw from nuclear power, while the major newly industrialised countries in particular, such as China, India and Brazil, remain committed to nuclear power plants. The International Energy Agency (IEA) welcomes this strategy, especially with a view to limiting global warming over the long term. According to its World Energy Outlook 2011, the global consumption of energy is set to rise by at least one third by 2035. By far the greatest share of this increase is likely to be covered by coal, as a primary source of energy. Natural gas also has a promising future. New mining methods have resulted in a surplus of shale gas from argillite which is generally driving down electricity prices on international markets. Given the debt crisis and the threat of recession, the next few months will show whether the EU can stick to its ambitious environmental and efficiency targets.

Global energy consumption is set to rise by at least a third by 2035.

#### **Electricity market liberalisation**

Switzerland's close relationship with other countries is reflected in particular in its role as a geographical electricity hub for Europe. To continue in this role, it is in our interests to create even closer ties with Europe in terms of electricity market regulation. The way to achieve this is by a bilateral accord on electricity. The EU has already indicated that such an accord is unlikely to be contemplated without a liberalised electricity market in Switzerland.

#### **Appropriate boundary conditions for reshaping the electricity supply system**

As yet, scant attention has been paid to the connection between the transformation of our energy system and the liberalisation of Switzerland's electricity market. The new energy policy calls for substantial investment in production facilities for renewable energy and in the national grid infrastructure. The electricity industry is likely to bear the financial burden. Yet current Swiss legislation provides little incentive to invest. At present, energy

suppliers are increasingly investing in projects abroad. The partially liberalised market in Switzerland does not allow the price of electricity to be dictated by supply and demand, and there is little motivation for consumers to make special efforts to increase efficiency and save on electricity. This is at odds with the extremely ambitious savings targeted by the 2050 energy strategy. Full market liberalisation is an important criterion for the concrete implementation of the 2050 energy strategy.

Appropriate boundary conditions are needed to enable expansion of the grid infrastructure, the cost of which is estimated to run into the billions. A primarily decentralised power plant landscape calls for a smart grid in order to ensure reliable supplies. Investments in the grid infrastructure necessitate legal certainty and a risk-appropriate return on capital for grid operators. At present, the practices pursued by regulatory authorities do not support this.

The energy transition necessitates substantial investment in grids and facilities for new renewable energy.

#### **Strategy review**

Regulatory intervention, coupled with the sustained low level of electricity prices and the euro as well as declining income from the sale of peak electricity, are impacting BKW's results. Under the present circumstances, building replacement nuclear power plants is not an option. In the past, BKW has invested heavily in its production and grid infrastructure. But in this changed environment, BKW is unable to sustain the growth strategy it has pursued to date. In the spring of 2011, the Board of Directors therefore decided to launch a comprehensive review of BKW's corporate strategy and introduce a Groupwide productivity enhancement and cost-efficiency programme. The main aim is to uphold the economic health of the entire Group. This includes BKW continuing to operate Mühleberg nuclear power plant for as long as the plant's safety and profitability are assured.

BKW wants to remain the largest vertically integrated electricity supplier in Switzerland, and to this end is enhancing its organisational and financial flexibility. The production portfolio is being expanded with the emphasis on renewable energy, provided such plants are economically viable. Investments will focus on hydro power and wind power, both in Switzerland and in neighbouring countries. Another strategic focus involves the development of new business models, driven in particular by technological change and new customer requirements.

The main focus of the corporate strategy is to ensure an economically sound future for BKW.

#### **Holding structure introduced**

To enable a more flexible structural and organisational approach to the new regulatory challenges and changing market requirements, the BKW Group has been operating under a holding structure since 1 January 2012. Registered shares in BKW Inc. were listed on the SIX Swiss Exchange and the BX Berne eXchange on 12 December 2011, and the business divisions will be hived off starting in 2013 at the earliest.

#### **2010 annual report approved**

On 13 May 2011, the Annual General Meeting approved the 2010 Annual Report and the consolidated year-end financial statements, adopted the proposals of the Board of Directors for the appropriation of retained earnings, and discharged the Board of Directors of its responsibilities. The auditors and Group auditors for fiscal 2010 were Ernst & Young AG.

#### **Election to the Board of Directors**

The 2010 Annual General Meeting confirmed the entire Board of Directors for the next term of office until 2015. Ulrich Sinzig stood down from the Board of Directors after 19 years, and was succeeded by Ueli Dietiker, Chief Financial Officer and Deputy CEO of Swisscom Ltd.

#### **A warm thank-you to all employees, customers and shareholders**

In the 2011 financial year BKW, its employees, management and shareholders, were confronted with numerous new issues that called for careful analysis and a great deal of hard work. Our employees in particular showed huge personal commitment and tenacity. The Board of Directors and Executive Board therefore extend their warmest thanks to all employees for their enormous dedication. Our thanks go also to our customers for the loyalty they continued to show us in the course of the past year. Your trust is the most important criterion for the successful future of our company.



Urs Gasche, Chairman of the Board



Kurt Rohrbach, CEO

## Review of the 2011 results

### Difficult market environment and special charges impact result

In the challenging economic and regulatory environment that characterised fiscal 2011, BKW generated lower operating profit. Low market prices coupled with the strong Swiss franc and, above all, special impairment charges and provisions for new fossil-fuelled thermal power plants weighed down the operating result. Results were also impacted by the lower financial result. BKW expects no change in the challenging market environment in the course of 2012, with energy prices remaining low and greater margin pressure on international markets.

A difficult market environment and special charges had an adverse effect on BKW's results for the 2011 financial year: revenue and operating income declined, largely driven by market-related reductions in income from proprietary production and, in particular, special charges for new fossil-fuelled thermal power plants. When preparing the year-end financial statements, BKW tested its production plants for impairment and identified a need to adjust the value of new fossil-fuelled thermal power plants in Wilhelmshaven, Livorno Ferraris and Tamarete. BKW holds a non-controlling interest in these production plants and purchases electricity from them at production cost. Based on estimated future market developments, BKW expects that the production costs of these power plants will be higher than the realisable market prices. For this reason, significant special impairment charges and provisions had to be recognised.

The sales business in Germany was disposed of on 1 January 2011. The resultant gain on sale is recognised in the income statement under "Net profit from discontinued activities". The comparative figures were adjusted accordingly in the 2011 Financial Report, in compliance with IFRS requirements.

In 2011 BKW recorded consolidated operating revenue of CHF 2,632.8 million, corresponding to a slight reduction of 5.6% versus the prior-year period. Despite the difficult economic climate, the Swiss supply business posted a slight increase in revenue. Sales of electricity in the trading business posted a volume- and price-related drop in revenue due to the difficult international market environment. As a result of the additional sizeable special charges for new fossil-fuelled thermal production plants, the year ended with an operating profit of CHF 138.1 million before

depreciation, amortisation and impairment (EBITDA). The lower financial result due to the negative trend on equity markets, coupled with higher financing costs, had a negative impact on the annual results, leading to a net loss of CHF 66.2 million. Adjusted for special charges recognised for impairment and provisions for fossil-fuelled thermal power plants, EBITDA amounted to CHF 417.9 million, corresponding to a reduction of 11.8% versus the prior-year figure. At CHF 122.8 million, adjusted net profit was CHF 105.5 lower year-on-year.

#### Outlook

BKW expects no change in the challenging market environment in the current financial year, with energy prices remaining low and greater margin pressure on international markets. Coupled with regulatory requirements and a persistently strong Swiss franc, this will also weigh down the operating result for 2012. The full impact of efficiency enhancements generated by cost reduction measures will not yet be felt. Taking all these factors into account and given the ongoing uncertainties, also on financial markets, operating profit before depreciation, amortisation and impairment (EBITDA) and net profit for the following financial year may deviate significantly from the adjusted figures for 2011.



Anita Schneider, 74, former office worker and romantic

When I travelled to India for a wedding last year, I sat next to the pilot and experienced for myself the plane's **sheer power** on takeoff. Since then I have constantly dreamed of flying round the world in the cockpit. I love the feeling of being above the clouds, where the worries of day-to-day life seem insignificant.

- Anita Schneider lives with her husband in an attic apartment high above the ground. She enjoys a panorama view, proximity to the city and the noise of aircraft which reminds her of the big wide world. She finds it difficult to save on electricity, because as a romantic she likes not only the flashing lights of the aeroplanes and the city lights, but also the countless lights and lamps in her private castle in the air.

## Highlights

### Review of 2011

In April BKW founded the Group company BKW France SAS. BKW has set itself the goal of building up hydro capacity in France for the purposes of electricity generation. In addition to the selective acquisition of facilities, it intends to take part in public invitations to bid for hydropower plant concessions.

In May sol-E Suisse AG, a subsidiary of BKW FMB Energy Ltd., and two partners inaugurated the first biogas plant in the canton of Ticino, at Sant'Antonino in the Magadino plain. The plant processes organic waste and uses it to generate green electricity and heat.

In May, at its headquarters in Berne, BKW inaugurated the first smart charging station with two electricity products for electric cars. The startup of the charging station kicked off the "EmobilitätBern" field test jointly launched with Mobility Solutions AG.

In June, Bielersee Kraftwerke AG, in which the city of Biel and BKW each have a 50% stake, held the groundbreaking ceremony for construction of the new Hagneck hydropower plant. The plant will increase local electricity production by 35 percent from mid-2015.

BKW stepped up its activities in canton Valais and founded Group company BKW Wallis AG at the end of June. The new office allows BKW to implement current and new energy projects in canton Valais even more efficiently and closer to the customer.

In 2011 BKW took a further step in the sustainability area, establishing a structural sustainability management system based on measurable targets, concrete measures and systematic application throughout the organisation. In July the third BKW Group Sustainability Report was published.

In September BKW and ten other Swiss electrical utilities combined their activities under the Swiss Smart Grid Association. The association's long-term goal is to drive forward the rollout and implementation of the smart grid in Switzerland.

In December, BKW acquired two wind farms from wpd AG of Bremen, with a collective installed capacity of 53 Megawatts (MW). The acquisition expanded BKW's foreign wind portfolio to 270 MW and strengthened its position in the field of wind power.

## Portrait of the Finance and Services Business Division



→ Beat Grossenbacher,  
Head of the Finance and Services  
Business Division

### BKW launched a further cost reduction programme in 2010. What prompted this and which objectives are being pursued?

The cost reduction programme was prompted by the difficult conditions in wholesale markets as well as regulatory pressure on grid charges and electricity generation costs in Switzerland, which are affecting BKW's profitability. Lower electricity prices and the narrower difference between peak and off-peak prices in the European electricity market, coupled with the unfavourable Swiss franc/euro exchange rate, led to a sharp drop in BKW's profit.

We have adopted a cost reduction programme with the aim of bringing controllable costs down by 15%. This programme targets savings in material costs as well as personnel. Details of the various measures are now being worked out. Some of the measures to save on material costs are already in place. The first workforce-related measures were implemented in February 2012. The cost reduction programme will be largely carried out in the course of 2012.

### In future, the BKW Group's real estate portfolio will be centrally managed. What added value does this new real estate strategy bring?

The main aim of managing real estate centrally is to obtain a Groupwide picture of BKW's properties in order to increase transparency and ensure optimal deployment of the assets available to us. This will simplify and standardise real estate management and allow us to coordinate the purchase of goods and services in future. This in turn will reduce costs and enhance efficiency.

### BKW employees were given the opportunity to undergo health checks at six BKW locations. What was the result?

The health checks identified room for improvement, particularly in terms of exercise, diet and back problems. Various fitness

options help employees to exercise more during their working day. They can choose from jogging, Nordic walking, yoga and strength training. Training is provided under expert guidance. Due to high demand, some courses are held in duplicate and, in some cases, at alternative locations. A seminar on nutrition was also held for interested employees, coupled with a nutritional analysis to promote healthy eating. We are convinced that, with little outlay, these measures will prove highly beneficial for the health and productivity of all our employees.

Standardisation in the real estate area will allow us to reduce costs and increase efficiency.

### Security is a key factor in a company's information technology (IT) infrastructure. What are the main risks in this context?

IT security is an important issue at BKW. The protection level for IT has been increased to address the growing security threat. The main aim of stepping up our security regulations was to meet increased requirements for staff working from home or on the move. With more and more people using social media such as Facebook, Youtube etc., to access information from different locations, this also entails a degree of risk, and users need to make sure they handle sensitive information properly. We are also focusing heavily on data protection.

## Portrait of the Energy Switzerland Business Division



→ Hermann Ineichen,  
Head of Energy Switzerland  
Business Division

**BKW is fully committed to expanding hydro power capacities. Can the government's objective of increasing hydro power production by four terawatt hours be achieved?**

BKW is aiming to step up production through a combination of new plants and renovations to existing hydroelectric power plants. As a result of upgrading Hagneck hydroelectric power plant, which is jointly owned by the city of Biel and BKW, electricity production has been increased by 35 percent. The KWO plus programme will also enable additional gains in energy and capacity. We believe the target is ambitious, and greater consideration must be accorded to utilisation interests if it is to be achieved.

**What is the motivation behind BKW's move to scale up activities in the canton of Valais and even set up a new public limited company with this in mind?**

BKW Wallis AG was founded in order to expand business operations in the canton, further develop existing partnerships and boost our regional presence. This will allow us to support our partners and customers even more quickly and flexibly. For several years we have been a reliable partner in the Valais. In 2006, for instance, we founded the "Energieversorgung Talschaft Löt-schen" with the communities of Kippel, Ferden and Wiler. And in 2007 the DEVIWA AG platform was set up with five regional partners, enabling local energy utilities to position themselves successfully in the liberalised electricity market. Since November 2010 BKW has also been successfully supporting Lonza AG in the energy logistics and procurement management areas.

**The Federal Council is in favour of a withdrawal from nuclear power. What does BKW plan as a substitute, and how can the emerging gap between electricity supply and demand be closed?**

BKW remains committed to a reliable, cost-effective and ecological supply of electricity. After the events in Japan it is clear to us that there will be no moves to replace nuclear power

plants in the medium term. This calls for a redesign of Switzerland's electricity supply system, which in turn will entail massive investments and can only be achieved if the boundary conditions permit power plants and grids that can operate at a profit over the long term. As yet this is still not the case.

### Hagneck hydroelectric power plant will increase local electricity production by 35 percent.

**After Fukushima the Federal Nuclear Safety Inspectorate (ENSI) ordered that Mühleberg nuclear power plant (KKM) undergo a number of upgrades. What are you doing to ensure the long-term operation of the KKM?**

We welcome the swift and safety-conscious response of the authorities; because despite the fact that KKM met all applicable safety requirements, it was necessary to learn the right lessons from Fukushima and further increase the safety level. We were quick to respond, shutting the plant down in the summer of 2011 a month earlier than usual for revision and optimising the intake unit for the cooling water supply in the emergency building. At the end of August 2011 we submitted proposals to ENSI for upgrades in various areas, primarily concerning the coolant supply and the spent fuel pool. BKW is committed to the long-term operation of KKM for as long as safety and profitability are assured.

**BKW is strongly committed to energy efficiency. It has a special website dedicated to this subject and has created the energy efficiency character Oscar. Why?**

Energy efficiency is a key priority for BKW. A commitment to optimising costs and energy efficiency is therefore an important plank of our strategy. The efficient use of energy also meets a growing need on the part of our customers. As a supplier of electricity to more than a million people, it is our declared aim to support customers in all areas related to energy efficiency. BKW uses "Oscar's energy-saving world" to show customers how to manage and use energy more efficiently.



## Portrait of the Corporate Steering Business Division



→ Kurt Rohrbach,  
CEO, Head of Corporate Steering

**BKW posted a sharp drop in revenue in the last fiscal year. Was this mainly driven by the debate on nuclear power?**

BKW's results were impacted by a large number of factors, among which the disaster in Fukushima was the most obvious, though not the most important. The global economic trend had a decisive impact. Low electricity prices on the international market, coupled with the weak euro, primarily affected our trading business. In Switzerland our prices were heavily influenced by regulatory requirements. Added to this, we saw income from our storage power plants decline as they were increasingly squeezed out by heavily subsidised solar power from Germany.

As a holding company we can respond more rapidly and flexibly to the market environment and to regulatory requirements.

**The energy world in Switzerland is no longer what it was twelve months ago, and has been undergoing rapid changes since the nuclear accident in Fukushima. What does this mean for BKW?**

Only a month before Fukushima, Bernese voters came out in favour of the general licence application for a replacement for Mühleberg nuclear power plant (KKM). It is now clear that over the next few years there will be no majority in favour of new nuclear power plants in Switzerland. Around one third of our electricity is generated by the KKM. We are now working out a number of alternatives, with various time horizons, to replace this production volume.

**What are you doing to ensure that BKW remains a leading Swiss energy supplier in future?**

When formulating our corporate strategy we primarily take into account the needs of our customers, the financial feasibility of projects as well as current and emerging trends in technology. This applies equally to electricity production and the grid infrastructure. The environment is forcing us to cut costs. We want to become more efficient so that we can exploit opportunities for expanding and establishing new activities and business fields over the next few years.


**BKW enjoys a good reputation among the general public. What are you doing to retain or enhance this reputation in future?**

We rely first and foremost on our good and stable reputation among customers in the immediate supply region. They judge us by the results of our work. People who know BKW exclusively through the media currently associate us only with nuclear power. Yet we deploy probably the broadest range of technologies of any Swiss energy supplier. In future we must get this message across clearly and intelligibly.

**What is BKW's purpose in introducing the holding structure?**

The evolution of our organisational structure to a holding company is the next logical step in our structural development. As a holding company we can achieve a clearer distinction between strategic and operational management. This will increase our flexibility and allow us to respond more effectively to market trends and regulatory requirements.





Philip Schnider, 12, pupil in year six and skateboard enthusiast

It would be really cool to be the best skateboarder in the world. Then I would always be skateboarding and even get paid for it so I could buy myself a new board. I feel free when I'm skateboarding. That's how I recharge my **batteries**. For instance, to cram for high school.

- Philip Schnider lives in the country with his parents, sister and his dog Max. He has already mastered lots of cool tricks on his board, such as the "Ollie" and the "Kickflip", but he has only managed the "900" on his Playstation. He needs no electricity to practise for his dream, but he would need it for the iPod he always carries. He mainly saves on electricity on Mondays, when his grandmother is there and tells him to switch the light off.

## Focus on smart energy

### Charting tomorrow's course today

Nowadays smart energy is a hot topic: smart electricity meters (Smart Home) and smart grids (Smart Grid). Hopes are very high for these forward-looking technologies. Following the Federal Council's decision to withdraw from nuclear power, the smart grid is a key plank of Switzerland's new 2050 energy strategy. But the road to the smart grid is paved with challenges.

Everyone is talking about smart grids, but no-one knows exactly what this involves. BKW defines the smart grid as follows: a smart grid is a conventional (electricity) distribution network enhanced with communications technology and smart meters or data processing systems. This integrated system enables electricity from conventional or complementary plants to be delivered to the consumer as and when required, whether at the fixed home connection point or to a mobile electric car. It also helps distribution grid operators to make better use of their network infrastructure capacity.

### The distribution grid must become smart.

One of the main drivers behind the need for a smart grid is the growth in electricity production from new renewable energy. Since the energy produced by solar power plants and wind farms is fed into the grid spasmodically depending on the weather conditions, production is virtually impossible to plan in advance. The volume of electricity produced by such facilities is in a permanent state of fluctuation since wind and sun are intermittent. Solar power is generated when the sun shines and wind power when the wind blows. This can result in shortages, for example at mid-day when electricity is consumed in large quantities, or in surpluses at night, when less electricity is consumed. The reverse can also occur if, for example, more solar power is generated at mid-day than is required in a specific grid region.

At present these fluctuations need to be balanced using control energy, i.e. turbines which can be quickly activated or deactivated, or with storage pumps. In Switzerland, hydro power is used to restore the power balance. A smart electricity grid ensures that fluctuating volumes of electricity produced from new renewable energy are matched as locally as possible against fluctuating electricity consumption levels. This assumes that consumption can be rapidly reduced or increased, as is the case with heat applications such as boilers or heating systems as well as, increasingly, household appliances. To ensure that the necessary information and regulating options are provided, smart grids need to be set up primarily at the lower voltage levels (0.4-kV grid to 16-kV grid) of local distribution networks, since more and more power is being fed in from dispersed locations such as solar panels on the roofs of individual households. The growing trend in feed-ins at these lower voltage levels is generating load flows in the distribution network for which it was not designed. So to ensure optimal deployment of the infrastructure, we need to determine more accurately where and how much electricity is flowing through the grid. This calls for new solutions for measuring, controlling and regulating distribution grids in order to maintain security and quality of supply without having to expand distribution networks inordinately.

To ensure optimal deployment of the infrastructure, we need to determine more accurately where and how much electricity is flowing through the grid.

Smart grids are an important criterion for integrating new renewable energy in the power supply system and exploiting energy efficiency and energy savings potential.



→ The command centre in Mühleberg controls and coordinates the distribution of electricity from the power plants to the regions.



→ The local distribution grid in particular must become smarter at lower voltage levels.

The more closely electricity supply and demand are balanced, the more efficiently electricity grids, large power plants and complementary power generating facilities can be utilised. Thanks to the new technologies, BKW expects that only some – rather than all – of its existing grids will need to be expanded in the medium term in order to accommodate decentralised feed-ins at the lower voltage levels.

The more closely electricity supply and demand are balanced, the more efficiently grids and production facilities can be utilised.

### Smart grid – hype or reality?

Is the introduction of smart grids realistic or is it a case of hype and excessively high expectations? What are the challenges in terms of implementation? Where do investments need to be made in order to equip the infrastructure for the smart energy future?

The USA is leading the way in terms of smart energy. This is because its extremely outdated infrastructure has forced it to innovate, with the result that smart meters are now in widespread use in buildings. The EU has declared that member states must roll out smart meters by 2018. Whether the EU will achieve this target is still unclear. Italy, for example, already has a head start over other EU countries because smart meters have been consistently installed in households since 2003 in order to identify the source of unexplained losses (electricity theft). Conversely, in Germany – as in Switzerland – the industry is still discussing the effective benefits of rolling out smart meters across the board. If we take a look at other countries, we see that projects are being rapidly implemented where the state makes a financial contribution to the trend and shares the burden of risk; whereas in countries where this is not the case, progress is slow.

Another example is China, where the government is consistently drawing on proven standards and strongly pushing the development of a smart electricity grid. This offers major economic potential. In China, government efforts are focused less on consumers and more on efficient expansion of the distribution grid infrastructure.

There is less pressure in Switzerland since up to now, by international standards, electricity grids have been deployed in a highly efficient manner due to the extremely effective regulation of many heating applications. Should this situation change, it remains to be seen whether Switzerland will adopt the Chinese standard.

To find the answer to such key questions for Switzerland, BKW and ten Swiss electricity utilities joined forces to create a Swiss Smart Grid Association (VSGS), the aim of which is to formulate a Swiss industry standard (based on international standards) for the rollout of a smart grid in Switzerland.

To justify their costs, smart grids must also provide clear economic benefits.

Ahead of the foundation of the Swiss Smart Grid Association, an analysis was drawn up with IBM Switzerland to estimate the cost of a smart grid rollout in Switzerland. Initial studies indicate that billions of francs would need to be invested in an industry-coordinated rollout of a comprehensive smart grid. Joint development of alternative solutions and a consensus on the required speed and scope of any rollout could significantly reduce the investment cost.

The issue does not concern energy suppliers alone. Swiss politicians also need to make their position clear. The Federal Office for Energy (FOE) and the Federal Electricity Commission (ElCom) need to define the rules of engagement and scope for action. As yet there has been no decision on who is responsible for rolling out a smart grid and who bears the related costs. The most important thing is to find an acceptable form of funding. To justify their costs, smart grids must also provide clear economic benefits. For example, improvements in energy efficiency or the cost-efficient integration of electricity from complementary power plants.

#### **Swiss Smart Grid Association**

Eleven Swiss electricity utilities have combined their smart grid operations under the Swiss Smart Grid Association founded specifically for this purpose. The association's long-term goal is to drive forward the rollout and implementation of the smart grid in Switzerland.



→ Decentralised or complementary systems such as solar panels on the roofs of private homes supplement production from large-scale power plants.



→ Centralised “Smart Home” software will automatically control electrical appliances in future.

### Initial pilot customers connected to the grid with iSMART

Back in 2008 BKW was quick to recognise that emerging smart energy technologies (“Smart Grid” and “Smart Home”) would require new skills to which, as a classical electricity supplier, BKW had only limited access. For example, telecommunications will also play an important role in the energy system of the future. To pool complementary expertise and develop future solutions jointly with partners, BKW founded the inergie Association in 2008. This partnership has already borne fruit: since mid-2010 some 270 electricity customers have been taking part in the iSMART pilot project. BKW installed a smart meter and other smart technologies in the basement of participants’ homes, to enable them to keep track of their electricity consumption. Thanks to the smart meter and online feedback, electricity customers can better control their consumption by, for example, not running the washing machine while cooking and only switching it on when low-tariff electricity is supplied.

The aims of the iSMART project are to visually display electricity consumption and enable active control of hot-water boilers and electric heating systems. A further step will explore ways of enabling smart regulation of the electricity grid at distribution grid level.

In future, switching electrical equipment on and off manually will be a thing of the past because these functions will be carried out by centralised software in the home (“Smart Home”). Depending on the power situation at any given time (e.g. prevalence of wind or sun, high or low tariff), washing machines, sun blinds, lamps and other such equipment will automatically switch on and off in order to keep electricity costs down.

### Inergie Association

The inergie Association develops and tests forward-looking solutions for the integrated and sustainable generation and use of energy. Members of the inergie Association are BKW, the municipality of Ittigen, IBM Switzerland AG, Swiss Post and Swisscom Ltd.

### **Saving energy**

Increasing energy efficiency is a much-discussed topic nowadays. BKW has long been committed to the more efficient use of the available energy and supports Swiss energy policy in this regard. On its new Internet portal ([www.bkw-fmb.ch/effizienz](http://www.bkw-fmb.ch/effizienz)) BKW explains how customers can identify sources that eat up power, how to make improvements and how even minor adjustments can reduce their electricity costs.

In addition to offering a full range of advice and services to promote energy efficiency, BKW is the first company in Switzerland to allow its private customers to compare their energy consumption against similar customer groups. In conjunction with the Federal Institute of Technology in Zurich, the online product “Oscar’s energy world” has been developed to encourage customers to note down their meter readings every week. Once customers have recorded the necessary information, they can anonymously compare their electricity consumption with customers in a similar situation. “Oscar” analyses deviations and provides tips and tricks on how to optimise electricity consumption.

### **An energy future that promises key opportunities**

To achieve the objectives of the new 2050 energy strategy, including the introduction of a smart grid, a number of small steps need to be taken at varying levels. This includes first and foremost the willingness of politicians to set the right course. As yet, the pace at which Swiss energy supplies will actually change is unclear. If the electricity industry embarks on the costly development of a smart grid too early, both the industry and its customers could find themselves at a financial disadvantage. Smart energy development (“Smart Grid” and “Smart Home”) is only in its infancy in Switzerland. Important questions have not yet been answered satisfactorily: for instance, what are the concrete benefits of a smart grid for electricity grid operators and suppliers and for electricity customers? An analysis must be conducted to determine how suppliers and customers use the additional information provided by smart energy technology and whether they actually change their habits and become more energy-efficient, i.e. save on electricity or exploit the potential for electricity production and distribution.

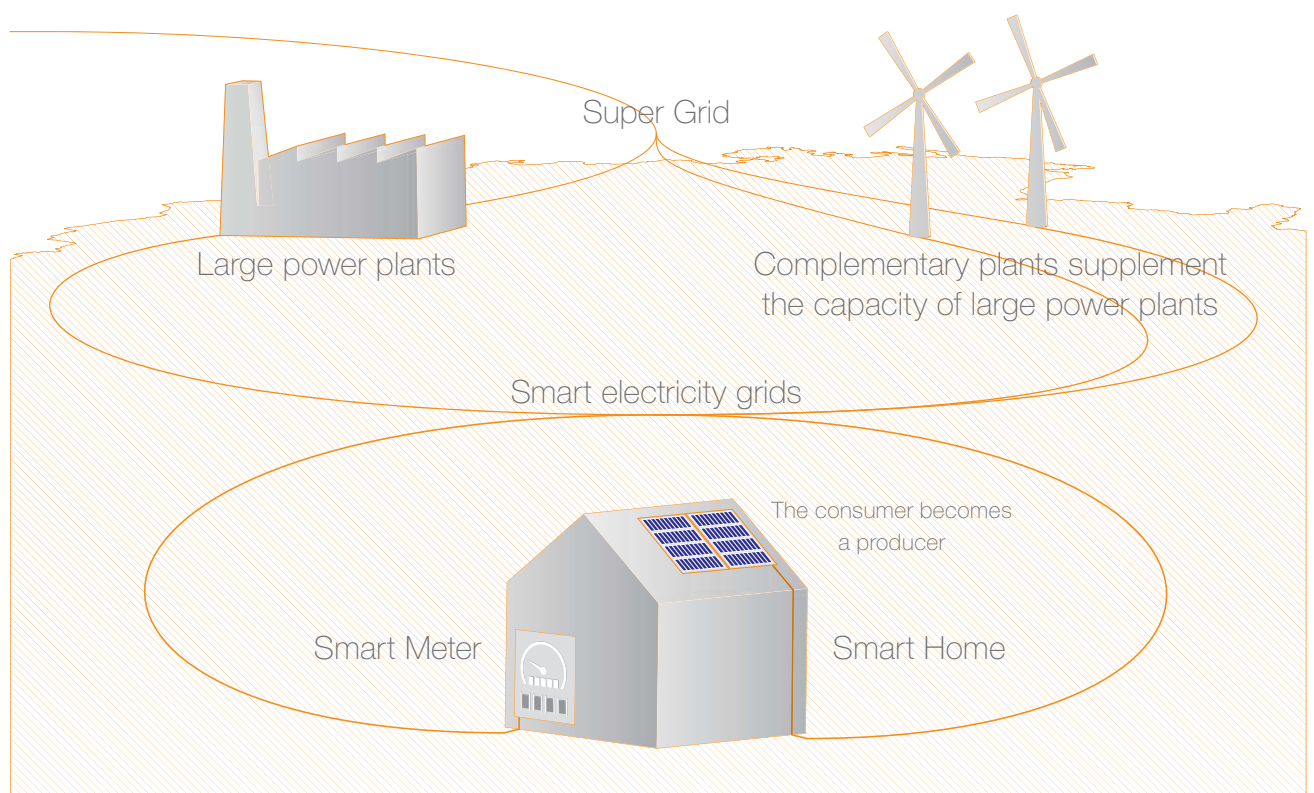
Pilot projects such as iSMART (Inergie Association) and the Swiss Smart Grid Association will provide the answers. BKW is unlikely to begin the process of rolling out smart meters and a smart grid before these questions are answered. The findings acquired in pilot trials are currently being collected and evaluated, and will be used to obtain a realistic assessment of the benefits and costs of a smart grid. Together with the laws and guidelines to be formulated by the Swiss Confederation, this will provide an additional basis for managing future electricity supplies.

## Smart grid and smart meters will pave the way for entirely new product and tariff models

Regardless of these results, customers must be able to benefit in future from developments in smart energy technology. This will depend not only on the introduction of a smart grid, but also on electricity market liberalisation, since customers will then be able to simply switch from one supplier to another and let the market decide. New products will appear on the market, and the “prosumer” (i.e. the “producing consumer”) will play a role in their design. At present, customers can at most choose between a flat-rate tariff or a high and low tariff. Smart electricity grids and smart meters will pave the way for entirely new product and tariff models which can be better adapted to the needs of the individual customer as the consumer – who also acts to some extent as the producer – and thus be made more attractive.



**A smart grid measures, controls and regulates**



→ Switzerland Foreign country

**Large power plants**

Large power plants will continue to play an important role: Storage power plants perform an important task in ensuring the stability of the grid.

**Complementary plants supplement the capacity of large power plants**

The number of complementary power generating facilities, e.g. biogas or (private) photovoltaic systems, is set to rise sharply in future.

**The consumer becomes a producer**

Solar roof panels on houses produce electricity. Electricity not required for own use (surplus) is fed into the grid.

**Super Grid**

Electricity will be transported across national borders via ultra-high-voltage lines.

**Smart electricity grids**

Computer-aided on-demand management will enable electricity to be fed in at times when it is actually needed.

**Smart Home**

Devices installed in private households allow remote collection of data over a network, thus providing information on electricity consumption and production. A display enables residents to read and keep track of their current electricity consumption.

**Smart Meter**

A smart meter measures, stores and reports data on electricity consumption and production.





Sonja Huwiler, 27, hairdresser, vocational trainee and self-made woman

After my exams in June it's full steam ahead: I've already finished half of the business plan for my own carpentry workshop. I love making things and experimenting with different materials. And I like machines. They let me carry out tasks that would take a lot of **brute force** if done manually.

- Sonja Huwiler lives with her boyfriend and dog in a bright, spacious city apartment. The dream of running her own workshop came about because what she wants to achieve doesn't exist yet: working with artists to turn their ideas into reality using a wide range of materials, building sets for photoshoots and events, and designing shops. She'd be lost without electricity, both in her professional and private life. For her, electricity means quality of life.

## Portrait of the Networks Business Division



→ Suzanne Thoma,  
Head of Networks Business  
Division

### What role does the distribution grid play in implementing the new energy policy?

At present, the flow of electricity from the higher to the lower voltage level can be planned, allowing a certain amount of predictability. In the new energy environment, high volumes of energy are fed into the distribution grid by thousands of decentralised small producers (wind, biomass, private photovoltaic installations, etc.). If the weather is inclement, these producers sometimes revert to being consumers. Ensuring the availability and quality of electricity, grid stability, and personal safety is becoming a much more challenging task. The distribution grid is evolving to a complex, integrated system which must be managed as efficiently as possible with the aid of state-of-the-art measuring, control and regulation technology, supported by sophisticated communication technology. In a further step, dealers and any new market players will be able to call up individual production and consumption data more or less online. So the distribution grid is becoming “smart”.

### What are the main conflicts you encounter in your daily work?

Round-the-clock electricity is taken for granted. But construction of the necessary infrastructure (production plant and power lines) is proving a time-consuming and costly task due to the number of objections lodged for all sorts of reasons. Consumers also expect electricity to be cheap and remain so. Yet they still want to see rapid progress in upgrading the energy system despite the major investment this necessitates. These are only two, albeit prominent, areas of conflict.

### What does market liberalisation mean for the electricity grid?

At present, the BKW grid mainly carries “BKW electricity”. In future, market liberalisation means that the grid will transport more electricity from other energy utilities. Customer contact will be intensified in order to cater to more individual customer needs. The main task is to connect producers and consumers to the

grid and develop the grid infrastructure to create a flexible, efficient system. Expanding the service portfolio for a wide range of market players will open up attractive new growth opportunities.

## The grid must be smart so as to simultaneously ensure quality of supply and efficiency.

### What are the main challenges you face, as Head of Networks?

Our main priority is to ensure the profitability of our grid business, with the emphasis on cost reduction. This includes a smoothly-functioning organisation as well as efficiency and effectiveness in all processes without compromising on quality. We are making great efforts to adapt the culture to the difficult, changing environment in which cost and time factors are accorded high priority. At the same time we want to get ready for the new, smart energy environment and make the most of the related opportunities. In this context our service business will gain importance and generate interesting growth potential.

### What are the main economic drivers for developing the grid?

In terms of grid infrastructure, the main economic drivers are the decisions made by politicians and regulatory authorities. They define and detail the conditions under which we are permitted to operate our grid business. Another driver is the statutory permissible return/interest on the capital invested in the grid infrastructure. This must be appropriate to the risk involved and reflect market requirements; otherwise there is no incentive to invest. These parameters, more than anything else, will dictate the future quality of the grid infrastructure and determine just how quickly the targeted transformation of the energy supply system will happen.

## Portrait of the Energy International and Trading Business Division



→ Samuel Leupold,  
Head of Energy International and  
Trading Business Division

Last year the international energy industry had to contend with sweeping changes. How did BKW tackle them and what impact did they have, for example, on energy prices?

The tsunami disaster in Japan was unquestionably a momentous event which, as a result of the early shutdown of eight German nuclear power plants, had a short-term impact on energy prices. But the unabated growth in subsidised new renewable energy had a stronger impact on the electricity market in Europe. Together with imports, these new power plant capacities essentially made up for the shutdown of German nuclear power plants. Demand for electricity generated by conventional power plants dropped, specifically as a result of the major expansion in photovoltaic plants. This drove down electricity prices in Europe further.

We want to scale up our activities in France and to this end will tender for selected hydro power licences.

Market coupling is a new procedure for the efficient management of cross-border congestion in the European electricity grid. What has been BKW's experience to date?

Based on our experience of market coupling at the German-French grid border, we believe this is an appropriate approach to managing cross-border grid capacities. Market coupling ensures that demand is met by the most efficient – i.e. the cheapest – power plants on either side of the border. For example, thanks to market coupling, prices at the border between France and Germany were balanced for 60% of the time and market efficiency was correspondingly enhanced. As electricity

companies, however, this also means we lose our competitive edge over our rivals.

How did the lengthy shutdown of Mühleberg nuclear power plant affect trading activities? Were you obliged to import more electricity?

Since BKW and Switzerland generally have a power surplus in the summer months, there was no need to import electricity during the extended overhaul of Mühleberg nuclear power plant. We were able to meet peak demands, thanks to optimal management of our power plant portfolio and, when the need arose, with energy purchased on the European markets.

What effect did the tighter economic conditions – for instance the euro/Swiss franc exchange rate, or countries in financial straits – have on business?

Demand for energy from the manufacturing industry has not recovered since the crisis in 2009. Combined with the increase in capacity for electricity production throughout Europe in recent years, particularly in solar power plants and wind farms, there is currently a surplus of electricity. Despite the shutdown of some nuclear power plants in Germany, this drove prices on wholesale markets down. Because of this, we were only able to sell our net energy surplus at much lower prices than in previous years. The weak euro didn't help either.

In 2011 you entered the market in France, with the foundation of BKW France SAS. What does BKW aim to achieve by this?

We already engage in energy trading and participate in two French nuclear power plants via purchase contracts, and we want to expand our hydro power capacity in France. Over the next few years, licences for existing hydroelectric power plants will gradually become due for renewal. As an experienced developer and operator of hydroelectric power plants in Switzerland and Italy, we intend to take part in the bidding process with a view to acquiring selected hydro power licences.

## Energy Dialogue

### “The grid is the key to future energy policy”

Politicians have opted to withdraw from nuclear power. Suzanne Thoma, Head of Networks and member of the BKW Inc. Group Executive Board, and Anton Gunzinger, Chairman of the Board of Supercomputing Systems AG, discuss the role played by the electricity grid in the energy policy turnaround, the rise in electricity consumption and the importance of electricity prices.

**The Federal Council and Parliament want to withdraw from nuclear power. What does this decision mean for security of supply in our country?**

**SUZANNE THOMA** Although a drastic change in energy policy is quite feasible in technical terms, actual implementation isn't quite as simple as some newspaper reports would have us believe. It calls for major investment in new power-generating facilities, larger grid capacities and an expansion in storage technologies, some of which are still far from market-ready. Nor is it clear under which economic conditions investments can be made, or who would be willing and able to provide the necessary capital under such conditions.

**ANTON GUNZINGER** I also think a change in energy policy direction is feasible, even though we still have to prove the case in many areas. The importance of the electricity grid will grow enormously in future, as it's the key to future energy policy. If we can manage the grid intelligently, then grid infrastructure costs should be lower. If smart technology is used to balance demand and supply effectively, it should be possible to transport some 50 percent more electricity over the grid without having to invest in massive expansion of the existing grid. That's the way to achieve an energy transition.

**Which investments are we actually talking about?**

**SUZANNE THOMA** Investments will mainly focus on reinforcing the local and regional grid and on ways of controlling it. This is important for feeding in electricity from decentralised plants, because the capacity of photovoltaic plants or wind farms varies from very high to very low, for example if there is no wind or heavy cloud cover. Additional investments in new protection technologies will be required in order to guarantee personal safety. Then there are investments in the smart grid. The first thing we have to do here is to control lower levels of the grid so that, wherever possible, consumption matches irregular production patterns. Until then, production will have to meet consumer demands as best it can.

**ANTON GUNZINGER** I agree. Investment is needed, particularly in infrastructure – and with an amortisation period of at least twenty years in every case. Things would be much simpler if we could find a tidy technical solution to the challenges presented by the grid. But because not all politicians are familiar with the technology, they sometimes impose regulatory requirements which are not always appropriate. This makes the technical solutions to the problems we face unnecessarily complex.

“Financial incentives for investing in the grid infrastructure must motivate the investor to invest for the long term.”

→ Suzanne Thoma

**What are the concrete requirements that the electricity grid of the future needs to meet?**

**SUZANNE THOMA** The existing grid is a relatively simple hierarchical structure. Electricity is fed into ultra-high-voltage grids and then passed down through increasingly lower voltage levels. The distribution grid is designed to tackle known load spikes. The distribution grid of the future will be a complex, flexible energy system that interconnects a large number of small and micro-producers and consumers at the various grid levels. The measuring and control technology as well as communication technology will play a key role in coordinating production, consumption and storage. This in turn will make a substantial contribution to energy efficiency. But whether the modern consumer will actually allow supply and demand to be balanced in the way Mr Gunzinger has outlined remains to be seen.



→ Suzanne Thoma in discussion with Anton Gunzinger

#### Why should customers object?

**ANTON GUNZINGER** The situation becomes difficult whenever the grid is locally overloaded. For example: a supplier has energy which a consumer wants to purchase. But the problem is, the grid isn't able to transport this energy. What should be done in this type of situation? Who takes the initiative? Who bears the cost incurred by a delay in delivering the electricity? For slow-burning systems such as heating installations, one conceivable option would be to postpone the transport of electricity to a later point in time. But that doesn't work for electric lighting. You can't tell someone to read their book in two hours' time because right now there's no electricity.

**SUZANNE THOMA** But a system of this type could offer advantages. For instance, someone could reserve electricity in advance for delivery at a predefined time. If this individual decides

not to use it, he or she can sell the purchase right to another party. But this is still a long way off, and right now the trend is still in its infancy.

“You can't tell someone to read their book in two hours' time if they don't have any light at present.”

→ Anton Gunzinger



→ Anton Gunzinger in discussion with Suzanne Thoma

So smart grids are better able to regulate the distribution of electricity. Will they also reduce electricity consumption in future?

**ANTON GUNZINGER** I don't think so, because reduced consumption is driven only by price. And in my opinion electricity prices are currently too low.

**SUZANNE THOMA** For the average consumer, the low price of electricity doesn't create any economic incentive to save on electricity or invest in energy efficiency. Naturally, the power-hungry industrial sector takes a different view. But generally speaking, such companies have already done a great deal in a bid to reduce their consumption.

Where do we stand today? What's already possible with smart grids?

**SUZANNE THOMA** Mainly there are pilot trials of varying scope

being conducted. BKW is running an interesting pilot project in the Bernese municipality of Ittigen. The aim is to find out whether electricity can be saved by providing consumers with a visual record of their electricity consumption, coupled with real-time information. Customers taking part in the test can use a smart meter

“Reduced consumption is driven only by price. And in my opinion electricity prices are currently too low.”

→ Anton Gunzinger



to regulate their electricity consumption. In principle, the technical components for a smart grid are already available. But one of the challenges is to develop vendor-independent standards. With this in mind, we and ten other Swiss electrical utilities have founded the Swiss Smart Grid Association, one of whose objectives is to formulate a Swiss industry standard based on international standards. What we are aiming for is an open-source solution. Right now it is still unclear where the finances for additional investments in a smart grid will come from, who will pay what, who will benefit and how. All these questions need to be resolved.

“It’s wrong to focus on electricity consumption – what matters is the consumption of energy as a whole.”

→ Suzanne Thoma

After dropping slightly in 2009, electricity consumption in Switzerland rose sharply in 2010. Given these circumstances, is a withdrawal from nuclear power realistic?

**SUZANNE THOMA** If withdrawal is pursued while simultaneously driving forward the policy on CO<sub>2</sub>, it will be extremely difficult to achieve. How can we succeed in switching from fossil fuels such as coal or gas to CO<sub>2</sub>-neutral electricity? The latest study by the Federal Institute of Technology in Zurich illustrates concrete scenarios in which an exit from nuclear power is possible, and is predicated on higher electricity consumption. But the institute’s assumptions are rather optimistic in terms of further technological developments such as the efficiency of photovoltaic systems and storage technology.

How important is it to reduce electricity consumption on a broad scale?

**SUZANNE THOMA** It makes no sense to focus exclusively on electricity consumption, because electricity is a high-quality, efficient energy carrier. Instead, the focus should be on reducing energy consumption as a whole. But this trend would basically increase electricity consumption.

**ANTON GUNZINGER** Even if houses have heat pumps installed and the electricity is generated from fossil fuels, this is a highly positive move in terms of the CO<sub>2</sub> problem. It even makes sense to operate a heat pump with electricity from a fossil-fired power plant: because heat pumps improve the overall efficiency yield compared to oil heating, and this in turn reduces energy consumption and CO<sub>2</sub> emissions despite increasing the consumption of electricity.

We’ve mainly talked about the problems. What sort of opportunities does the energy transition offer?

**SUZANNE THOMA** If, as a company, we manage to formulate a realistic target scenario that gives an honest account of the advantages and drawbacks, this could provide fertile ground for innovative business developments. Revamping the energy system should above all mean that we need far less fossil fuel, which is imported from abroad at great cost and makes virtually no contribution to Swiss added value.

**ANTON GUNZINGER** What’s happening right now in the energy sector represents a huge opportunity for Switzerland. Why not assume the role of pioneer and play an active part in shaping the energy future? Even for small and medium-sized enterprises such as mine I see major potential, which is why I have nothing against electricity becoming more expensive. This is the only way to finance the energy transition.

Dr. Suzanne Thoma is Head of Networks and a member of the BKW Inc. Group Executive Board. A chemical engineer, she joined the company in March 2010.

Prof. Dr. Anton Gunzinger is the founder and Chairman of Supercomputing Systems AG in Zurich. He also lectures at the Department for Information and Technology and Electrical Technology at the Federal Institute of Technology in Zurich.

The interview was chaired by Patrick Imhasly, economic journalist, Berne.





Samuel Trottmann, 25, biologist and medical student

My dream is to sail the seven seas. Navigating icebergs, observing marine life or even discovering untouched islands. And experiencing the **power** of the elements at first hand – with the sails snapping in the wind and sea spray stinging my face.

- Samuel Trottmann lives in the attic apartment of his parents' house. He likes the lake view and the large, wild garden. He has been sailing for a year and dreams of travelling the world's oceans. He wouldn't need much electricity, except for light, navigation instruments and, of course, the sound system for his favourite music.

# Corporate Risk Management

All commercial activity is subject to a wide range of external and internal influences. These in turn entail risks which can adversely affect a company's success and even threaten its very existence.

Risk management is defined as a systematic approach towards identifying and assessing risks and taking the appropriate measures to address them.

For BKW, risk management is an integral part of the process of defining our strategic direction and operational procedure. In addition to the risks of potential hazards to people and the environment and those related to security of electricity supply, BKW also analyses risks relevant to its results and reputation.

Risk management identifies the need for risk-reduction measures.

## Organisation and tasks

Corporate Risk Management is a specialist department organisationally assigned to the Finance and Controlling functional unit. It is responsible for managing methods and processes, defining Group-wide requirements governing risk methodology, and aggregating risks at Group level. The task of the Group-wide Risk Committee is to ensure that relevant risks are assessed independently within the overall context.

## Categories of potential risk

Financial risk management covers risks associated with energy prices, certificates, exchange rates, interest rates, share prices, credit and liquidity. These are primarily so-called fluctuation risks. As a rule, operational risks are event-related, typically covering risks associated with regulation, legislation, infrastructure, IT, know-how, communication, modelling and processes.

## Measurement and assessment

Recognised standard assessment methods are applied for financial risk management. Operational risks are assessed by the relevant specialists by estimating the extent of the potential loss or damage and the probability of occurrence, or by analysing historical loss data.

## Control and monitoring

Financial risks and overall risk content are mainly controlled by applying Value-at-Risk (VAR) limits. Risks inherent in exceptional market situations are mitigated by applying additional absolute limits on positions. All other risks are controlled by adopting specific measures aimed at reducing their probability of occurrence or the potential loss level. Compliance with defined limits and the implementation of defined measures are regularly monitored and reported to the responsible bodies.

# Corporate Governance

## Introduction

At BKW, corporate governance adheres consistently to the standards of the Swiss Code of Best Practice. In addition to the relevant provisions of Swiss Corporation Law, the principles and rules governing corporate governance at BKW are contained in BKW's articles of incorporation, organisational regulations, code of conduct and regulations governing the BKW Board Committees. These documents are regularly reviewed by the Board of Directors and revised in line with changing requirements.

Within the context of corporate governance, BKW discloses in particular its general financial situation, the organisational and management structure, its risk management and other important aspects of corporate governance, in order to provide shareholders with as comprehensive a picture as possible and, in so doing, enable them to make informed investment decisions. Using a balanced combination of management and controls, BKW also manages the Company in a compliant, value-driven, sustainable manner and, by so doing, enhances our corporate value in the interests of shareholders and other stakeholder groups such as customers, public organisations and employees.

The organisational and management structure of BKW is designed to ensure the clear assignment of responsibilities, so as to avoid any unilateral concentration of powers and prevent conflicts of interest. At BKW, the functions of Chairman and CEO are separated. All members of the Board of Directors are independent, i.e. no board member at BKW exercises an executive function. New members are individually nominated for election at the Annual General Meeting.

BKW has always had a single-class share with no voting right restrictions, i.e. each share carries one vote at the Annual General Meeting. The State Council of the Canton of Berne, which represents the majority shareholder in BKW, has repeatedly declared that it acts in the same way as any other shareholder with regard to BKW. In particular, it has no intention of exploiting its shareholder status and representation on the BKW Board of Directors in order to implement its energy policy (see e.g. response to the Grunder motion dated 12 December 2007).

BKW practises an extensive and effective system of controls. The independence of the control organs within BKW is assured by the company's organisational structure. BKW's internal controls system is supplemented by a Group-wide risk and assurance management system which enables Group management to identify risks and take the necessary steps in good time. Risk assessment is based on the Group risk map, which is periodically updated to reflect current conditions. Another key element of effective corporate governance is the individual responsibility borne by BKW's various organisational units and Group companies, as well as its employees. This is consistently promoted and is an important aspect of BKW's corporate culture.

Honouring its responsibility towards the community and the environment is a key criterion for BKW's sustained success. To meet this obligation even more effectively, a code of conduct which is mandatory for all employees and members of BKW Group supervisory organs has been in place since 1 January 2009. The code of conduct contains guidelines and binding rules on trustworthy, compliant conduct and is supplemented by detailed directives on specific issues. In the last reporting year, BKW further developed its governance system and issued a directive against insider trading as set forth by the principles enshrined in the code of conduct.

The following statements are made in accordance with the current requirements of the Corporate Governance Information Guidelines issued by the SIX Swiss Exchange (SIX). The published information is based on the status at 31 December 2011. Significant changes which have taken place between this date and the date on which this report was printed are listed in Section 10.

At the end of 2011 BKW completed its transformation to a holding structure. As a result, BKW Inc. took over from BKW FMB Energy Ltd. the role of lead company of the BKW Group, with identical tasks. The management structure and composition of the BKW Group's supervisory organs (Board of Directors of BKW FMB Energy Ltd./BKW Inc. and Group Executive Board) remain unchanged. The statements in this report therefore apply mutatis mutandis to BKW Inc. and to BKW FMB Energy Ltd.

#### **Change to a holding structure**

The existing parent structure of BKW FMB Energy Ltd. was transferred to a holding structure led by BKW Inc. The change to a holding structure was made by means of a 1:1 exchange of shares in BKW FMB Energy Ltd. for shares in BKW Inc. The shareholding and voting right ratios remained unchanged, and the swap offer had no material economic effect for the shareholders of BKW FMB Energy Ltd. The BKW Inc. shares were listed on the SIX Swiss Exchange and BX Berne eXchange on 12 December 2011.

Under the terms of Article 33 of the Federal Stock Exchange Act, any BKW FMB Ltd. shares remaining in free float on completion of the exchange offer are declared invalid and exchanged for shares in BKW Inc. An application to declare these shares invalid has been made to the Commercial Tribunal of Berne. When this process has been successfully completed, BKW Inc. will hold a 100% share in BKW FMB Energy Ltd. and the BKW FMB Energy Ltd. share will be delisted from the SIX Swiss exchange and BX Berne eXchange on 20 April 2012. Further details on the share exchange are provided in the offer prospectus ([www.bkw.ch](http://www.bkw.ch)).

# 1 Group structure and shareholders

## Operational Group structure

<b>Corporate Steering</b> Kurt Rohrbach	<b>Finance and Services</b> Beat Grossenbacher	<b>Networks</b> Suzanne Thoma	<b>Energy Switzerland</b> Hermann Ineichen	<b>Energy Int. and Trading</b> Samuel Leupold
BKW Energy International and Trade Ltd.	BKW Deutschland GmbH	Arnold AG › NetLeit AG	Biomassekraftwerk Otelfingen AG	BKW Bippen Wind GmbH
BKW FMB Energy Ltd.	BKW FMB Beteiligungen AG	BKW ISP AG › Elektro Feuz AG › Elektro Witschi + Bandi AG › inelectro sa	BKW Wallis AG	BKW Borkum West II Beteiligungs GmbH
BKW Management Ltd.		BKW Übertragungsnetz AG	Elektrizitätswerk Grindelwald AG	BKW Dubener Platte Wind GmbH
BKW Grid Switzerland Ltd.			Energie Utzenstorf AG	BKW Energie Dörpen Beteiligungs-GmbH
			Erdgas Thunersee AG	BKW Energie Wilhelmshaven Beteiligungs-GmbH
			EWR Energie AG	BKW Erneuerbare Energien GmbH
			Kraftwerk Utzenstorf AG	BKW France SAS › BKW Hydro Allevard SAS
			Kraftwerke Kander Alp AG	BKW Handel AG › BKW enex AG
			Kraftwerke Milibach AG	BKW Holleben Wind GmbH
			Onyx Energie Mittelland AG › Elektrizitätswerke Wynau AG › Onyx Energie Dienste AG › Onyx Energie Netze AG › Onyx Energie Produktion AG	BKW Italia S.p.A. › BKW Wind Italia S.r.l. › Bradano Energia S.r.l. › Electra Italia S.p.A. › Idroelettrica Lombarda S.r.l.
			Simmentaler Kraftwerke AG	› Idroelettrica Val d'Aosta S.r.l. › Luminosa S.r.l. › Termoelettrica Veneta S.r.l.
			Société des forces électriques de la Goule SA	› Volturino Wind S.r.l. › Wind Farm Buglia S.r.l. › Wind Farm S.r.l. › Wind International Italy S.r.l.
			sol-E Suisse AG › BEBAG Bioenergie Bätterkinden AG › Biogasanlage Piano di Magadino in Bern AG › Holzwärme Grindelwald AG › Juvent SA › Regionaler Wärmeverbund AG Heimberg-Steffisburg (REWAG) › TW Energie AG	BKW Wind Service GmbH
			WEV Spliez AG	

### Listed Group companies

Headquartered in Berne, BKW FMB Energy Ltd. has been listed on the SIX Swiss Exchange (security No. 2.160.700, ISIN CH0021607004, ticker symbol BKWN) and the BX Berne eXchange since June 2003. Also headquartered in Berne, BKW Inc. has been listed on the SIX Swiss Exchange (security No. 13.029.366, ISIN CH0130293662, ticker symbol BKW) and the BX Berne eXchange since 12 December 2011. On 31 December 2011 BKW's stock market capitalisation amounted to CHF 1,911,248,861.

### BKW's scope of consolidation

With the exception of BKW FMB Energy Ltd., BKW's scope of consolidation covers only companies which are not listed separately on the stock exchange. BKW's holdings in individual companies which are fully consolidated in the annual financial statements are listed below. In all cases the holding corresponds to the percentage of shares and voting rights. A detailed list of holdings is given on pages 69 to 71 of the Financial Report.

## Fully consolidated holdings of BKW FMB Energy Ltd. and its subsidiaries

Company	Domicile	Share/basic capital in millions and currency	% Holding
Arnold AG	Selzach	0.5 (CHF)	86.0
BEBAG Bioenergie Bätterkinden AG	Bätterkinden	0.1 (CHF)	56.0
Biogasanlage Piano di Magadino in Bern AG	Berne	1 (CHF)	80.0
Biomassekraftwerk Otelfingen AG	Otelfingen	0.5 (CHF)	100.0
BKW Bippen Wind GmbH	Berlin (D)	0.03 (EUR)	100.0
BKW Borkum West II Beteiligungs GmbH	Berlin (D)	0.03 (EUR)	100.0
BKW Deutschland GmbH	Berlin (D)	0.1 (EUR)	100.0
BKW Dubener Platte Wind GmbH	Berlin (D)	0.03 (EUR)	100.0
BKW Energie Dörpen Beteiligungs-GmbH	Berlin (D)	0.03 (EUR)	100.0
BKW Energie Wilhelmshaven Beteiligungs-GmbH	Berlin (D)	0.03 (EUR)	100.0
BKW Energy International and Trade Ltd.	Berne	0.1 (CHF)	100.0
BKW enex AG	Berne	15 (CHF)	100.0
BKW Erneuerbare Energien GmbH	Berlin (D)	0.03 (EUR)	99.3
BKW FMB Beteiligungen AG	Berne	50 (CHF)	100.0
BKW FMB Energy Ltd.	Berne	132 (CHF)	100.0
BKW France SAS	Paris (F)	0.1 (EUR)	100.0
BKW Handel AG	Berne	7.5 (CHF)	100.0
BKW Holleben Wind GmbH	Berlin (D)	0.03 (EUR)	100.0
BKW Hydro Allevard SAS	Paris (F)	0.1 (EUR)	100.0
BKW ISP AG	Ostermundigen	0.9 (CHF)	100.0
BKW Italia S.p.A.	Milan (I)	13.4 (EUR)	100.0
BKW Management Ltd.	Berne	0.1 (CHF)	100.0
BKW Übertragungsnetz AG	Berne	40 (CHF)	100.0
BKW Wallis AG	Visp	0.1 (CHF)	100.0
BKW Wind Italia S.r.l.	Milan (I)	0.01 (EUR)	100.0
BKW Wind Service GmbH	Berlin (D)	0.03 (EUR)	100.0
BKW Grid Switzerland Ltd.	Berne	0.1 (CHF)	100.0
Bradano Energia S.r.l.	Milan (I)	0.01 (EUR)	50.0
Electra Italia S.p.A.	Milan (I)	1 (EUR)	100.0
Elektrizitätswerk Grindelwald AG	Grindelwald	0.55 (CHF)	92.1
Elektrizitätswerke Wynau AG	Langenthal	0.1 (CHF)	100.0
Elektro Feuz AG	Grindelwald	0.1 (CHF)	66.0
Elektro Witschi + Bandi AG	Büren an der Aare	0.05 (CHF)	100.0
Energie Utzenstorf AG	Utzenstorf	1 (CHF)	100.0
Erdgas Thunersee AG	Interlaken	6.9 (CHF)	66.7
EWR Energie AG	Schattenhalb	2 (CHF)	100.0
Holzwärme Grindelwald AG	Grindelwald	2.5 (CHF)	90.7
Idroelettrica Lombarda S.r.l.	Milan (I)	25.43 (EUR)	100.0
Idroelettrica Val d'Aosta S.r.l.	Milan (I)	0.05 (EUR)	100.0
inelectro sa	Porrentruy	0.5 (CHF)	100.0
Juvent SA	Saint-Imier	0.1 (CHF)	65.0
Kraftwerk Utzenstorf AG	Utzenstorf	0.1 (CHF)	100.0
Kraftwerke Kander Alp AG	Kandersteg	2.5 (CHF)	60.0
Kraftwerke Milibach AG	Wiler (Lötschen)	1 (CHF)	80.0
Luminosa S.r.l.	Milan (I)	0.1 (EUR)	94.0
NetLeit AG	Visp	0.1 (CHF)	67.0
Onyx Energie Dienste AG	Langenthal	2 (CHF)	100.0
Onyx Energie Mittelland AG	Langenthal	10.5 (CHF)	100.0
Onyx Energie Netze AG	Langenthal	10.5 (CHF)	100.0
Onyx Energie Produktion AG	Langenthal	3 (CHF)	100.0
Regionaler Wärmeverbund AG Heimberg-Steffisburg (REWAG)	Heimberg	2.5 (CHF)	51.0
Simmentaler Kraftwerke AG	Erlenbach i. S.	7.31 (CHF)	83.9
Société des forces électriques de la Goule SA	Saint-Imier	3.5 (CHF)	80.8
sol-E Suisse AG	Berne	30 (CHF)	100.0
Termoelettrica Veneta S.r.l.	Milan (I)	0.11 (EUR)	100.0
TW Energie AG	Berne	0.4 (CHF)	75.0
Volturino Wind S.r.l.	Milan (I)	0.03 (EUR)	100.0
WEV Spiez AG	Spiez	0.1 (CHF)	50.0
Wind Farm Buglia S.r.l.	Milan (I)	0.03 (EUR)	100.0
Wind Farm S.r.l.	Milan (I)	0.02 (EUR)	100.0
Wind International Italy S.r.l.	Milan (I)	52.17 (EUR)	100.0



## Significant shareholders

in %	Holding in BKW Inc. at 31.12.2011	Holding in BKW FMB Energy Ltd. at 31.12.2010
Canton of Berne	52.91	52.54
E.ON Energie AG	7.07	7.03
Groupe E SA	10.07	10.00
BKW Inc. and Group companies <sup>1</sup> /BKW FMB Energy Ltd. and Group companies <sup>2</sup>	9.83 <sup>1</sup>	9.99 <sup>2</sup>

In the year under review the following disclosures were made in compliance with SESTA):

### Disclosure notices concerning BKW FMB Energy Ltd. shares

The call option granted to BKW FMB Energy Ltd. by E.ON Energie AG in 2010 for 7.03% of the shares (3,709,475 shares or voting right shares) in BKW FMB Energy Ltd. expired unexercised in the year under review. Instead of the call option, BKW FMB Energy Ltd. has a right of pre-emption over E.ON Energie AG for the same share package, at no fixed price, subject to specific conditions and for an indefinite period of time. In the notice dated 4 October 2011, BKW FMB Energy Ltd. disclosed the aforementioned granting of the right of pre-emption as an acquisition position (financial instrument) and E.ON disclosed it as a disposal position to the SIX Swiss Exchange Disclosure Office.

In connection with the share exchange presented on page 32 BKW FMB Energy Ltd., the Canton of Berne and E.ON Energie AG separately reported on 6 December 2011 and Groupe E SA on 7 December 2011 that, following the tendering of their shares in BKW FMB Energy Ltd. shares, they now held 0% of shares in BKW FMB Energy Ltd. Conversely, on 6 December 2011 BKW Inc. reported to the SIX Swiss Exchange Disclosure Office that, as a result of the share exchange, it now held 99.31% of the shares in BKW FMB Energy Ltd.

### Disclosure notices concerning BKW shares

In connection with the share exchange presented on page 32 and the new BKW listing, significant shareholders in BKW reported the following acquisition positions to the SIX Swiss

Exchange Disclosure Office:

Canton of Berne: 52.91% (Notice dated 14 December 2011)  
 Groupe E SA: 10.07% (Notice dated 13 December 2011)  
 E.ON Energie AG: 07.07% (Notice dated 19 December 2011)  
 BKW Inc.: 09.83% (Notice dated 14 December 2011)

The notices issued by BKW and E.ON Energie AG also disclosed that E.ON Energie AG had granted BKW a right of pre-emption for 3,709,475 BKW shares subject to certain conditions. This was listed in the BKW notice as an acquisition position (financial instrument) and in the E.ON Energie AG notice as a disposal position. This right of pre-emption is based on an agreement between BKW, BKW FMB Energy Ltd. and E.ON Energie AG, which stipulates that the original right of pre-emption granted to BKW FMB Energy Ltd. by E.ON Energie AG in respect of 3,709,475 shares in BKW FMB Energy Ltd. must be exercised on BKW shares after the share exchange. Details of disclosure notices are available on the SIX Swiss Exchange disclosure platform at [http://www.six-exchange-regulation.com/obligations/disclosure/major\\_shareholders\\_de.html](http://www.six-exchange-regulation.com/obligations/disclosure/major_shareholders_de.html) (in German).

### Cross-shareholdings

A cross-shareholding exists between BKW and Groupe E SA. under which BKW holds a 10% (687,500 shares) capital and voting share in Groupe E SA, and Groupe E SA has a 10.07% capital and voting share in BKW (5,280,000 shares).

## 2 Capital structure

### Capital

The share capital of BKW amounts to CHF 131,087,027.50 and is divided into 52,434,811 fully paid up registered shares with a par value of CHF 2.50 each. The Company has issued neither participation certificates nor dividend-right certificates.

### Authorised share capital/conditional share capital

Under the terms of Article 3a of BKW's articles of incorporation, version dated 29 September 2011, the Board of Directors is authorised at any time until 29 September 2013 to increase the share capital by up to CHF 13,200,000.00 by issuing at most 5,280,000 fully paid up registered shares with a par value of 2.50 CHF, with a view to a maximum final capital of CHF 132,000,000.00.

Any capital increase coming under the terms of the overall authorised capital increase must support the exchange of shares held by shareholders in BKW FMB Energy Ltd. in Berne (at a ratio of 1:1), provided these shareholders have not made use of the Board of Directors' exchange offer as decided by the General Meeting held on 29 September 2011. The new shares must be offered exclusively to such shareholders.

The pre-emptive right of previous shareholders has been lifted. Once acquired, the new registered shares are subject to the restrictions on transfer in accordance with Article 5 of BKW's articles of incorporation.

BKW has no conditional share capital.

### Changes in equity

BKW Inc. was founded in February 2011 with a share capital of CHF 100,000.00, divided into 40,000 registered shares with a par value of CHF 2.50 each. Under the public exchange offer for BKW FMB Energy Ltd. shareholders, 52,394,811 registered shares in BKW FMB Energy Ltd. with a par value of CHF 2.50 each were tendered to BKW by 1 December 2011 and exchanged on a 1:1 basis for registered shares in BKW, again with a par value of CHF 2.50 each. Including the 40,000 shares in BKW FMB Energy Ltd. already held by BKW prior to the offer, BKW holds 52,434,811 shares in BKW FMB Energy Ltd. and at 31 December 2011 had an ordinary share capital of CHF 131,087,027.50.

Following the restructuring of BKW FMB Energy Ltd. in the year under review to create a holding company, BKW discloses the BKW FMB Energy Ltd. figures for the 2010 and 2009 financial years as well as its own figures for the 2011 financial year.

### Proposal to the Annual General Meeting for the appropriation of retained earnings in the last three financial years

CHF thousands	2011 BKW Inc.	2010 BKW FMB Energy Ltd.	2009 BKW FMB Energy Ltd.
<b>Unappropriated retained earnings</b>	<b>57,543</b>	<b>404,477</b>	<b>356,686</b>
Appropriation of retained earnings:			
> Dividend distribution	52,800 <sup>3</sup>	132,000 <sup>2</sup>	132,000 <sup>1</sup>
> Balance carried forward	4,743	272,477	224,686

<sup>1</sup> CHF 2.50 per share at a par value of CHF 2.50

<sup>2</sup> CHF 2.50 per share at a par value of CHF 2.50

<sup>3</sup> CHF 1.00 per share at a par value of CHF 2.50

(Subject to approval by the Annual General Meeting. At the time of preparing the annual financial statements, 365,189 registered shares in BKW FMB Energy Ltd. had not yet been exchanged for shares in BKW Inc. The exchange should be finalised by the date of the Annual General Meeting of BKW Inc., hence the proposal for appropriation of retained earnings relates to 52,800,000 registered shares.)

**Composition of equity on the balance sheet date**

CHF thousands	2011 BKW Inc.	2010 BKW FMB Energie Ltd.	2009 BKW FMB Energie Ltd.
Share capital	131,087	132,000	132,000
Reserves from capital contributions	26,129	35,000	35,000
General legal reserves	786,936	37,560	37,560
Reserves for treasury shares	359,845	371,331	83,201
Free reserves	0	281,569	569,699
Unappropriated retained earnings	57,543	404,477	356,686
<b>Total</b>	<b>1,361,540</b>	<b>1,261,937</b>	<b>1,214,146</b>

The year-end financial statements of BKW were prepared in accordance with the accounting provisions of the Swiss Code of Obligations.

**Shares**

All 52,434,811 registered shares in BKW with a par value of CHF 2.50 each are fully paid up. All shares carry equal voting rights. Every share represented at the Annual General Meeting is entitled to one vote. While the Company does not print or issue certificates in respect of the registered shares, shareholders may request a share certificate free of charge.

**Restrictions on transferability and nominee registration**

Registered BKW shares can be transferred only by assignment or according to the provisions of the Federal Law on the Custody and Transfer of Securities Held with an Intermediary. Notification of assignment must be given to BKW. The Company may refuse to register an acquirer of shares in the shareholders' register for the following reasons:

- If, through the acquisition, a natural person or legal entity or a partnership directly or indirectly holds more than 5 per cent of the entire share capital. The same restriction applies to corporate bodies, partnerships or groups of persons who are inter-related or otherwise linked and act in concert to acquire shares.
- If the acquirer has not expressly declared that the shares were acquired in his own name and on his own account.

Nominees may be registered but these shares carry no voting rights.

**Convertible bonds and options**

The Company has no outstanding convertible bonds and has issued no options.





Florence Hunziker, 17, trainee veterinary assistant

My dream would be to have my own horse ranch in New Zealand. I'm enormously attracted to this country which is so far away and so different from Switzerland. But right now I just enjoy galloping over meadows on Gosima, feeling her **power**. It's both exhilarating and calming.

- Florence Hunziker is thoroughly contented sharing an all-female household with her mother and sister. She has no pets, but looks after a horse on a nearby farm. Whether her dream will one day come true remains to be seen. For the time being, she is looking forward to her apprenticeship so she can make her love of animals her profession. Despite her love of nature, she likes city life, which would be pretty boring without electricity.

## 3 Board of Directors

The Board of Directors (Board) consists exclusively of non-executive independent members. This means that no current member of the Board of Directors is simultaneously a member of the BKW Group Executive Board or of the Executive Board of any Group company.

### Members

#### Urs Gasche, lawyer (1955, CH)

Urs Gasche is an independent lawyer practising in Berne. He is also Chairman of the Board of Directors of Vereinigte Schweizerische Rheinsalinen in Schweizerhalle and a member of the Board of Trustees of the Rotkreuzstiftung für Krankenpflege Lindenhof, Berne. As a State Councillor, from 2002 to mid-2010 Urs Gasche was Director of Finance for the Canton of Berne. In this function he was appointed as Canton of Berne delegate to the BKW FMB Energy Ltd. Board of Directors until the 2010 Annual General Meeting. Prior to his election as State Councillor, Urs Gasche worked as an independent lawyer in Berne.

→ Function: Chairman of the Board, Chairman of the Nomination and Compensation Committee, Vice Chairman of the Audit Committee

→ BKW Board member since 2011, BKW FMB Energy Ltd. Board member since 2002 → Elected until 2015

#### Antoinette Hunziker-Ebnetter, lic. oec. HSG (MA Econ.) (1960, CH)

Antoinette Hunziker-Ebnetter is CEO and Vice Chairwoman of the Board of Forma Futura Invest AG, Zurich. She is also a member of the Board of Gebäudeversicherung des Kantons Berne (Canton of Berne Building Insurance). From 2002 to 2005 Antoinette Hunziker-Ebnetter was Head of Trading & Sales and member of the Executive Board of Bank Julius Bär, Zurich, prior to which she worked for the SIX Swiss Exchange, latterly as Head of the Executive Committee of the SIX Group, Zurich, and CEO of Virt-X in London.

→ Function: Vice Chairwomen of the Board, Chairwoman of the Audit Committee → BKW Board member since 2011, BKW FMB Energy Ltd. Board member since 2006 → Elected until 2015

#### Ueli Dietiker, Swiss Certified Accountant (1953, CH)

Ueli Dietiker is Chief Financial Officer and Deputy CEO of Swisscom Ltd, in which function he performs mandates at various Swisscom Group companies. He is also a member of the Board of Directors of Belgacom International Services, Brussels, Sanitas Krankenkassen, Wincase Krankenkassen, Zuckermühle

Rupperswil and Jobs.ch. Prior to this he held various positions at ATAG Ernst & Young, Motor Columbus AG and as CEO of Cablecom Holding AG.

→ Function: Member of the Board, member of the Audit Committee → BKW/BKW FMB Energy Ltd. Board member since 2011 → Elected until 2015

#### Barbara Egger-Jenzer, Berne, lawyer (1956, CH)

Barbara Egger-Jenzer is a State Councillor and Director of Construction, Transport and Energy for the Canton of Berne. As part of her official duties she also sits on the Board of Directors of BLS AG and BLW Netz AG. Until her election to the State Council in 2002, Barbara Egger-Jenzer worked as an independent lawyer in Berne. She has been a member of the BKW FMB Energy Ltd. Board of Directors since 2002.

→ Function: Member of the Board, Deputy Chairwoman of the Nomination and Compensation Committee, Representative of the Canton of Berne

→ BKW Board member since 2011, BKW FMB Energy Ltd. Board member since 2002 → Elected until 2015

#### Philippe Viridis, electrical engineer (1948, CH)

Philippe Viridis has been Delegate to the Board of Directors and General Director of Groupe E, Fribourg, since 2009. He is also Chairman of Groupe E Connect SA, Gommerkraftwerke AG and Cisel Informatique SA and Vice Chairman of Forces Motrices Hongrin-Léman SA, Swiss Hydrogen Power SHP SA, Fribourg, Capital Risque Fribourg SA and Frigaz SA. In addition he is a member of the Board of Gommerkraftwerke AG, EWEMAG, EW Jaun Energie AG and Belenos Clean Power Holding AG. Until his election as Delegate to the Board of Directors, Philippe Viridis was General Director of Groupe E and until 2006 General Director of EEF.Ensa SA.

→ Function: Member of the Board → BKW Board member since 2011, BKW FMB Energy Ltd. Board member since 2003 → Elected until 2015

#### Marc-Alain Affolter, engineer (1952, CH)

Marc-Alain Affolter is Chairman of the Board and CEO of the Affolter Holding Group, Malleray, which manufactures components for watches and machines. Until 1985 he worked for various companies as a development engineer.

→ Function: Member of the Board, member of the Audit Committee

→ BKW Board member since 2011, BKW FMB Energy Ltd. Board member since 2007 → Elected until 2015

**Georges Bindschedler, Doctor of Law and notary (1953, CH)**

Georges Bindschedler is a professional director and independent entrepreneur. He has board mandates with Merz und Benteli AG, Niederwangen/BE (Delegate), KUBO Tech AG, Effretikon (Chairman), Lüthi Holding AG, Burgdorf (Chairman), Helvetic Trust Estates AG, Berne (Vice Chairman), Solvalor Fund Management SA, Lausanne, and ITAG Vermögensverwaltung AG, Basel. He is also President of the Council of Berne University of Applied Sciences and of various charity foundations. Between 1985 and 2002 he was Delegate to the Board of Directors and CEO of von Graffenried Holding AG, Berne. Prior to this he worked for a law firm and a bank.

→ Function: Member of the Board, member of the Nomination and Compensation Committee → BKW Board member since 2011, BKW FMB Energy Ltd. Board member since 2007 → Elected until 2015

**Prof. Dr. iur. Eugen Marbach, lawyer (1955, CH)**

Eugen Marbach has worked as an independent lawyer in Berne since 1985. Since 1987 he has regularly lectured at the University of Berne, where he has held a professorship at the Institute for Economic Law since 1993. Since 2005 Eugen Marbach has also been co-publisher of a journal on intangible assets, information and competition law.

→ Function: Member of the Board → BKW Board member since 2011, BKW FMB Energy Ltd. Board member since 2007 → Elected until 2015

**Hartmut Geldmacher, MBA (1955, D)**

Hartmut Geldmacher is an independent entrepreneur. Prior to this and until the end of September 2011 he was a member of the Board of Management and Labour Relations Director at E.ON Energie AG, Munich, and CEO of E.ON Kraftwerke GmbH, Hanover. Between 2000 and 2006 he was Head of Human Resources at E.ON Energie AG, becoming a member of the Board of Management in 2002. Prior to this he held various management positions at Preussen Elektra AG in Hanover.

→ Function: Member of the Board → BKW Board member since 2011, BKW FMB Energy Ltd. Board member since 2009 → Elected until 2015

**Beatrice Simon-Jungi, MBA (1960, CH)**

Beatrice Simon-Jungi is a State Councillor and Director of Finance for the Canton of Berne. Before being elected State Councillor in mid-2010, she became local councillor for Seedorf

in 1995 and mayor in 2003. In 2006 she was elected to the Berne cantonal parliament. Prior to 1995 Beatrice Simon-Jungi worked as Head of Marketing for an SME.

→ Function: Member of the Board, Representative of the Canton of Berne → BKW Board member since 2011, BKW FMB Energy Ltd. Board member since 2010 → Elected until 2015

**Tasks**

In accordance with Swiss corporation law and Article 19 of the articles of incorporation, the Board of Directors is the governing body of the Company and its related organs. It decides on all matters which are not delegated to other organs either by law or by the organisational regulations as defined in Article 20 of the articles of incorporation.

**Election and term of office**

In accordance with Article 21 of the articles of incorporation, the Board of Directors consists of between nine and thirteen members (currently there are ten). In accordance with Article 21 of the articles of incorporation and pursuant to Article 762 of the Swiss Code of Obligations (OR), the Canton of Berne is entitled to a maximum of two seats on the Board of Directors. At present the canton is represented by President of the State Council of Berne, Barbara Egger-Jenzer and State Councillor Beatrice Simon-Jungi. The other members are elected by the Annual General Meeting, with new members being elected individually and existing members elected collectively.

The term of office for members elected by the Annual General Meeting is four years. These members may stand for re-election. The term of office for delegates of the Canton of Berne, appointed under the terms of Article 762 OR, is defined by the State Council. The term of office shall not extend beyond the calendar year in which a Board member reaches his or her 70th birthday.

In the year under review, Ulrich Sinzig stepped down from the Board of Directors of BKW FMB Energy Ltd. Ueli Dietiker was elected to the Board of Directors of BKW FMB Energy Ltd./BKW Inc. at the 2011 Annual General Meeting.

### Internal organisation

The internal organisational structure of the Board of Directors is laid down in the articles of incorporation and the organisational regulations. No special functions other than Chairman and Vice Chairman are defined. The Secretary need not be a member of the Board. Meetings are also attended by members of the Group Executive Board as well as Matthias Kaufmann (General Secretary and Secretary to the Board of Directors) and Martin Pfisterer (Head of Corporate Communications and Marketing). In 2011 the Board of Directors convened nine times.

### Committees

The Board of Directors is supported by two standing committees: the Audit Committee and the Nomination and Compensation Committee. Furthermore, the Board of Directors is entitled to set up ad hoc committees at any time for the purpose of important business such as major investments, alliances and co-operations. Members of these committees are appointed by the Board of Directors and are generally tasked with analysing specific Board business in detail, and supporting the Board in its supervisory duties.

The tasks and organisation of the Audit Committee and the Nomination and Compensation Committee are defined in Articles 12 and 13 of the organisational regulations and in the relevant directives authorised by the Board of Directors.

### Audit Committee

#### Members

Antoinette Hunziker-Ebneter, Chairwoman  
 Urs Gasche, Vice Chairman (until 31.12.2011)  
 Marc-Alain Affolter  
 Ueli Dietiker (from 1.1.2012)

As a rule, meetings of the Audit Committee are attended by the CEO, the Head of Finance and Services, the Head of Corporate Accounting and the Head of Internal Audit, as well as a representative of the external auditors. The Audit Committee regulations stipulate at least four ordinary meetings per year. In 2011 the Audit Committee convened four times. No external consultants were engaged.

### Tasks

- › Discussion, with internal and external auditors as well as Group Executive Board representatives, of the year-end financial statements, interim financial statements, consolidated year-end statements and consolidated interim statements. The Audit Committee issues recommendations to the Board of Directors on the basis of this discussion.
- › Discussion, with internal and external auditors as well as Group Executive Board representatives, of significant changes in the presentation of the financial statements as well as extraordinary items in closing accounts and changes in disclosure. The Audit Committee issues recommendations to the Board of Directors on the basis of this discussion.
- › Evaluation and monitoring of the organisation and effectiveness of internal controls, compliance, the activities and performance of external auditors and their interaction with internal Group auditors. The Board of Directors is informed of such evaluations, and recommendations are made to the Board if necessary.
- › Assessment of the independence of external auditors and the compatibility of the auditing work, with any consulting mandates performed by external auditors. The Board of Directors is informed of such evaluations, and recommendations are made to the Board if necessary.
- › Preparatory work for the appointment or discharge of external auditors, Group auditors and the Head of Internal Audit, for submission to the Board of Directors.
- › Discussion of the quality of accounting and financial reporting based on an assessment of internal and external audits. The Audit Committee issues recommendations to the Board of Directors on the basis of this discussion.
- › Regular reports to the Board of Directors on the Audit Committee's activities and findings.



#### Authority

- › Authorisation of accounts involving credits approved by the Board of Directors, with the proviso that extraordinary credit overdrafts are reported to the Board of Directors.
- › Direct involvement of the Head of Internal Audit at meetings of the Audit Committee.
- › Fostering direct contacts between the Chairman and members of the Audit Committee and internal and external auditors as well as the CEO.
- › Definition of compensation for internal and external auditors.

#### Nomination and Compensation Committee

##### Members

Urs Gasche, Chairman

Barbara Egger-Jenzer, Vice Chairwoman

Georges Bindschedler

The CEO also attends meetings of the committee and has the right of co-determination.

The Nomination and Compensation Committee convenes as often as business requires, but at least once a year in accordance with its regulations. In 2011 it convened six times. An external consultant was engaged to evaluate a new member of the Board of Directors.

##### Tasks

- › Formulation of principles and concrete proposals concerning the compensation of members of the Board of Directors and Group Executive Board, for submission to the Board of Directors.
- › Formulation of principles governing the selection of candidates for election or re-election to the Board of Directors, for submission to the Board of Directors, and the preparation of concrete proposals.
- › Succession planning at Board and Group Executive Board levels.
- › Handling selection/severance and compensation matters at Board and Group Executive Board levels

#### Authority

- › Definition of salaries of members of Group management and briefing the Board of Directors in this regard.

#### Delegation of responsibility to the Group Executive Board

Pursuant to Article 20 of the articles of incorporation, the Board of Directors delegates the management of business to the Group Executive Board and defines its responsibilities within the framework of the organisational regulations. The Group Executive Board comprises the five division heads, with Kurt Rohrbach simultaneously performing the function of Chief Executive Officer (CEO) and head of his division. The CEO principle was introduced at the same time as the holding structure. Group Executive Board decisions are taken by the CEO in conjunction with the other members of the Group Executive Board. The other members of the Group Executive Board have right of co-determination and the right to submit motions. In 2011 the Group Executive Board generally met every two weeks.

Subject to the authority of the Annual General Meeting, the Board of Directors and the Board Committees, the Group Executive Board is responsible for management of the BKW Group. The business divisions are directly managed by their respective division heads. The Group Executive Board is authorised to delegate tasks and powers within its remit. It also performs preparatory work for matters which must be submitted to the governing bodies for decision.

#### Group Executive Board powers

- › Formulation, review and implementation of the overall strategy, general business policy, corporate and Group plans (targets/objectives) and related actions (work schedules, projects).
- › Ongoing supervision and alignment of the Group's overall development, of business performance in directly-reporting divisions, and of important individual plans and projects.
- › Decisions on projects as well as authorising credit for expenses and the assumption of obligations related to the core operating business, in particular the preparation, extension and maintenance of production, transmission and distribution plant for electrical energy, the assumption of obligations related to such plant, as well as contributions to such plant up to the amount

of CHF 16 million if provided for by financial planning, and up to the amount of CHF 8 million in the case of unplanned projects.

- › Decisions on projects as well as authorising credit for expenses and the assumption of obligations outside the core operating business, up to CHF 8 million per case if provided for by financial planning, and up to CHF 4 million in the case of unplanned projects.
- › Decisions on the purchase and sale of real estate up to CHF 16 million if provided for by financial planning, and up to CHF 8 million in the case of unplanned projects.
- › Decisions on the subscription or reduction of share issues and participations in or the increase or reduction of interests in companies, provided the purpose of the company in question is not outside the core operating business and the expense does not exceed CHF 4 million in each case.
- › Decisions on the subscription or reduction of share issues and on participations in or the increase or reduction of interests in companies if the purpose of the company in question is outside the core operating business, provided the expense does not exceed CHF 500,000 in each case.
- › Decisions on the assignment of work and deliveries.
- › Decisions regarding the initiation of legal action or arbitration, and authorisation of litigation settlements in this regard up to the amount of CHF 8 million.
- › Decisions on the raising of long-term loans by Group companies, up to the amount of CHF 50 million.
- › The selection, succession planning and further training of heads of business units, senior specialists and project experts (Level 2 senior management).
- › Definition of salaries and compensation for heads of business units, departments and regional offices as well as the respective specialist and project functions (Level 2 and 3 senior management) in line with the requirements set by the Board of Directors.
- › Approval of energy delivery and energy purchase contracts with associated obligations up to the value of CHF 200 million over the entire contract term.
- › Authorisation of collateral for defined amounts and subject to defined periods, including guarantees and sureties, for consolidated companies and companies in which BKW holds an interest, and for partner plants with annual cost guarantees,

provided the transaction underlying such collateral is conducted in compliance with the rules governing the assignment of authorities.

- › Authorisation of collateral for indefinite periods, including guarantees and sureties, for consolidated companies and companies in which BKW Group companies hold an interest, and for partner plants with annual cost guarantees, provided such collateral is granted within the context of auctions or in favour of state authorities, companies with a public service mandate or an electricity exchange.
- › Approval of the budget and mid-term plans of holding subsidiaries.
- › Approval of the strategies of the business divisions and of the consolidated companies reporting to them.
- › Approval of the foundation and liquidation of BKW consolidated companies.

The Group Executive Board has delegated some of its powers to the relevant division heads for division-specific projects. Division heads are also tasked with preparing strategically important business related to their own sphere of responsibility for submission to the Group Executive Board. In addition, three standing Group Executive Board committees exist: the Market Switzerland Committee, the Resources Committee and the Long-Term Portfolio Management Committee. These committees consist of members of the Group Executive Board and Extended Group Executive Board.

The purpose of the Market Switzerland Committee is to coordinate an integrated market approach for the BKW Group in the networks and energy areas within Switzerland. The Resources Committee is responsible for the optimal Group-wide deployment of human resources, IT resources and real estate. The new Long-Term Portfolio Management Committee is responsible for Groupwide steering and optimisation of the BKW Group's entire portfolio (procurement, production and sales) in an illiquid time horizon of more than three years, in line with the targets set by the Group Executive Board and Board of Directors.

Additional information on the Group Executive Board is given in Section 4.

### **Information and control instruments vis-à-vis the Group Executive Board**

The Group Executive Board undertakes to provide the Board of Directors with regular updates on important events.

As a rule, matters which must be handled by the Board of Directors are discussed in advance by the Board conference, which is attended by the Chairman of the Board and members of the Group Executive Board.

### **Reporting by the Group Executive Board to the Board of Directors**

- › Regular reports on important events as well as on general business performance.
- › A report, submitted in spring, on the financial figures for the previous fiscal year and a report, in autumn, on the financial figures for the first half of the current year. These reports are accompanied by a forecast of the annual result based on current business performance.
- › Mid-year, the medium-term plan for the next four financial years; and towards the end of the financial year, the next year's budget for approval.
- › In spring, written reports on the previous-year performance of BKW participations as well as risk management in the trading business.
- › At the beginning of each financial year, a comprehensive review of risk management.

Risk management identifies and assesses risks and formulates risk reduction measures. With regard to Group-relevant risks, regular audits are conducted within the context of assurance management. Risk management is supervised by a Risk Committee chaired by Beat Grossenbacher (member of the Group Executive Board). In the year under review, the Risk Committee convened six times and regularly reported to the Group Executive Board. Additional information on risk management is provided on page 30 of the Annual Report.

### **Auditing**

Internal Audit  
Reto Umbricht

Internal Audit submits a quarterly report to the Audit Committee summarising its auditing activities. In particular, the report covers audits of Group-wide transaction and business processes. Once a year, Internal Audit reports to the Audit Committee on the annual financial statements audit and any other priority topic defined by the Audit Committee.

Auditors and Group auditors  
Ernst & Young AG, Berne

# CINEMA

Nur heute  
nur 2 Tage

Demnächst

Nächsten Sonntag, 24. Dez  
finden nur 2  
Vorstellungen statt  
und zwar nachm. 19 und 4 Uhr  
abends keine Vorstellung

Einmalige  
Sondervorstellung

Cinematograph  
ist geschlossen

Demnächst

Beginn  
4:30 Uhr

Wieder unter 10 Jahre haben  
in Film Vorstellungen keine Chance.  
Das bedeutet nur ab 10 Jahren ab  
11 Uhr in der Nacht für Kinder & Jugendliche  
Obwohl auch 12 bis 18 nicht abstrahlen

Tonight

Rauchen verboten  
Defence de fumer  
No smoking

Voranzeige

Elektrilla-Preise	
1. Platz	3,-
2. Platz	2,-
3. Platz	1,-
4. Platz	0,50
5. Platz	0,25
6. Platz	0,10
7. Platz	0,05
8. Platz	0,02
9. Platz	0,01
10. Platz	0,00

Next week  
english talking pictures

3. Platz

Chocolat  
Miles per Hour

19. Dezember, 4.15 Uhr  
19. Dezember, 4.15 Uhr  
19. Dezember, 4.15 Uhr  
19. Dezember, 4.15 Uhr





Norbert Gubser, 69, extra and amateur actor

Acting is my passion. I put a lot of **energy** into it, because I want to touch the audience emotionally – like my great role model, Jack Nicholson. To make a film with him is my dearest wish. In keeping with my attitude to life: anything is possible!

- Norbert Gubser lives with his wife in the city. They ran a business for special shoes for 30 years. He caught the acting bug six years ago, since when he has taken private lessons, worked as an extra and played small parts in various films. Before he performs in front of the camera, he needs a strong coffee: then he's wired up and ready for action.

## 4 Group Executive Board



→ From right: Corinne Montandon (Secretary), Martin Pfisterer\*, Matthias Kaufmann\*, Suzanne Thoma, Samuel Leupold, Kurt Rohrbach, Hermann Ineichen, Beat Grossenbacher\* \* Extended GEB

The Group Executive Board consists of the heads of the five business divisions. Kurt Rohrbach is CEO.

### Members

#### **Kurt Rohrbach, electrical engineer ETH (1955, CH)**

Kurt Rohrbach joined BKW in 1980. In addition to his function at BKW, he is President of the Association of Swiss Electricity Enterprises (VSE) and a member of the board of the Canton of Berne Trade and Industry Association.

→ Function: CEO, Head of Corporate Steering → Member of the Group Executive Board since 1992

#### **Beat Grossenbacher, MA Econ. (1960, CH)**

Beat Grossenbacher joined BKW in 2008. Prior to this he worked for the Swisscom Group after 1994, latterly as Deputy CFO and Head of Treasury, Mergers & Acquisitions and Insurance.

→ Function: Head of Finance and Services, and CFO → Member of the Group Executive Board since 2009

#### **Hermann Ineichen, electrical engineer ETH and MSC in Energy Management, EPFL (1957, CH)**

Hermann Ineichen joined BKW in 1996. Until the end of 2000 he was Head of Trading at BKW FMB Energy Ltd, prior to which he headed the Tariffs department of Centralschweizerische Kraftwerke AG.

→ Function: Head of Energy Switzerland → Member of the Group Executive Board since 2000

**Samuel Leupold, mechanical engineer ETH/MBA (1970, CH)**

Samuel Leupold joined BKW in 2006. Prior to this he was responsible for global sales for the Grinding & Dispersion business unit of Bühler AG, Uzwil, before which he worked as a consultant at McKinsey & Company and held various positions at ABB Kraftwerke AG.

→ Function: Head of Energy International and Trading → Member of the Group Executive Board since 2008

**Dr. Suzanne Thoma, chemical engineer ETH (1962, CH)**

Suzanne Thoma joined BKW in 2010. Before joining BKW she was head of automotive supply business with the WICOR Group, and prior to this was CEO of high-tech company Rolic Technologies Ltd. Dr. Thoma has also held various positions in different countries for Ciba Spezialitätenchemie AG.

→ Function: Head of Networks → Member of the Group Executive Board since 2010

The Board of Directors has appointed the following business unit heads to the Extended Group Executive Board. They directly represent the issues and business related to their own sphere of responsibility and have direct right of co-determination within the Group Executive Board as well as the right to submit motions.

**Matthias Kaufmann, lawyer, LL.M. in International Business Law (1957, CH)**

Matthias Kaufmann joined BKW in 1992, prior to which he was Assistant Head of the Swiss Federal Council's Service for Administrative Control.

→ Function: General Secretary → Member of the Extended Group Executive Board since 2000

**Martin Pfisterer, Doctor of Law, advocate and notary, federally certified PR consultant (1949, CH)**

Martin Pfisterer joined BKW FMB Energy Ltd. in 1987. Before this he was Section Head at the Federal Office for Spatial Planning.

→ Function: Head of Corporate Communications and Marketing  
→ Member of the Extended Group Executive Board since 2000

**Management contracts**

BKW has delegated no management tasks to third parties outside the Group.

## 5 Compensation, shareholdings and loans

### **Content and method for determining compensation and shareholding programmes**

With the exception of the Chairman, members of the Board of Directors receive a fixed annual remuneration not linked to performance, a flat-rate expense allowance and an expense allowance for meetings. The Chairman of the Board also receives a fixed annual remuneration and a flat-rate expense allowance, as well as additional compensation for his secretariat and infrastructure. The Chairman of the Board receives no allowance for meetings.

The extent of the remuneration paid to members of the Boards of Directors depends on the Company's economic situation and outlook, and takes into account the rates of remuneration paid by comparable companies in the electricity industry. The remuneration of members of the Board of Directors is periodically reviewed and revised (generally every three years) by the Nomination and Compensation Committee with the aid of an external, independent consultancy.

Members of the Group Executive Board receive a fixed annual remuneration for their services. This is determined on an individual basis, taking into account the activity and responsibility of the person in question, their contribution to the Company's success, the market rate for comparable functions and the Company's economic situation and outlook. In addition, a variable profit share of up to 35 per cent of the annual remuneration is paid, indexed to business results and the performance of the Group Executive member in question.

Once a year the Board of Directors also defines the number of BKW shares which members of the Board of Directors can acquire, along with the preferential price and the blocking period. In 2011 each member of the Board of Directors and Group Executive Board was offered the option of acquiring up to 600 shares in BKW FMB Energy Ltd. at a preferential price. The shares acquired in this way are subject to a blocking period of three years, or optionally five years. This arrangement is designed to motivate members of the Board of Directors and Group Executive Board towards achieving a sustainable increase in BKW's enterprise value.

In the event that a member of the Board of Directors or Group Executive Board stands down, there are no agreements or plans that provide for severance payment or any other benefits or concessions.

Remuneration paid by BKW to members of the Board of Directors and Group Executive Board, the shareholdings of such persons in BKW and any credits/loans advanced to such persons by BKW are shown in detail in the Notes to the financial statements in the Financial Report (pages 77 to 80).



## 6 Shareholders' participation rights

The following provisions are taken from the BKW articles of incorporation. The current articles of incorporation are available to shareholders free of charge upon request.

### **Voting right restrictions and representation**

Only persons listed in the shareholders' register as a shareholder with voting rights are entitled to exercise shareholders' rights. There are no limitations on voting rights for BKW shareholders attending the Annual General Meeting.

Every shareholder with voting rights can attend the Annual General Meeting in person or be represented by another shareholder, a representative of a company organ or an independent representative designated by the Company in the invitation to the Annual General Meeting. Representation by a third party is not permitted.

Public-law associations, legal entities and commercial societies are represented by their governing bodies, shareholders or legal representatives, or by persons with written special power of attorney.

Every share listed in the shareholder register with voting rights is entitled to one vote at the BKW Annual General Meeting.

### **Statutory quorum**

Unless otherwise provided for under law, decisions at the Annual General Meeting are reached by a simple majority of votes. Simple majority of votes also applies to decisions concerning the easing or lifting of the restriction on transferability of registered shares.

### **Convocation of the Annual General Meeting, agenda**

Notice of the Annual General Meeting shall be given by the Board of Directors at least 20 days prior to the date of the meeting. Shareholders representing at least 10 percent of the share capital may also convene a meeting by submitting a written request to this effect, stating the agenda items and proposals.

Shareholders representing shares with a par value of CHF 1 million or more may ask for an item to be included on the agenda. This request must be submitted no later than 50 days before the date of the Annual General Meeting.

### **Entries in the shareholders' ledger**

The basis for determining entitlement to attend or be represented at the Annual General Meeting is the status of entries of shareholders with voting rights on the tenth day before the Annual General Meeting.

## 7 Changes in control and defensive measures

## 8 Auditors

## 9 Information policy

### Changes in control and defensive measures

Under the terms of Article 6 of the articles of incorporation, BKW has raised to 49 per cent the threshold for an obligation to make an offer as defined in Article 32 of the Federal Stock Exchange Act.

No agreements have been drawn up with, or benefits planned for, members of the Board of Directors and/or Group Executive Board in the event of transfer of changes in control.

### Auditors

#### Term of office

The auditors of BKW are selected on an annual basis. The current auditors are Ernst & Young AG, who have held this office for BKW since 1990. The Auditor in Charge is Thomas Stenz.

#### Fees

Auditors' fees for auditing costs related to BKW and consolidated Group companies amounted to CHF 628,000 for the year under review. Fees for audit-related services (in particular, non-mandatory audits and reviews, consultancy in matters concerning accounting) amounted to CHF 222,000. A fee of CHF 60,000 was paid for consultancy in connection with the changeover to the holding structure.

### External audit information mechanisms

Supervisory and control instruments vis-à-vis the auditors constitute one of the key components of the Audit Committee's tasks (see also above, paragraph 3 of the tasks and responsibilities of the Audit Committee). The Audit Committee normally convenes four times a year. These meetings are also attended by the auditors, who have right of co-determination. In the year under review the auditors attended all four meetings held by the Audit Committee.

The auditors examine the annual financial statements as well as the consolidated and interim financial statements on behalf of the Audit Committee. Towards the end of the year the auditors must advise the Audit Committee with regard to the audit priorities it has set for the forthcoming year and the rationale behind these priorities. The Audit Committee must approve this audit plan and, if necessary, commission the auditors to conduct additional specific audits.

The auditors' performance and independence are assessed each year by the Audit Committee on the basis of the quality of the reporting and audit reports, implementation of the audit plans approved by the Audit Committee, and collaboration with internal auditors. With regard to independence, the Audit Committee examines the ratio of budgeted audit fees to additional services provided by the auditors, and the content of such additional services.

### Information policy

BKW is committed to the timely dissemination of transparent and comprehensive information to its shareholders, customers, employees and the general public. It regularly informs the media about important events related to its business activities. A press conference is held at least once a year. Along with a written invitation to the Annual General Meeting, shareholders receive a shareholders' letter and an order form for the Annual Report. As a rule, they also receive a half-yearly shareholders' letter on business performance. Share price related information is published in compliance with the obligation to disclose as required by the Federal Stock Exchange Act. In addition to media releases, special information for shareholders and investors (in particular Annual Reports and the results of Annual General Meetings) are published on the Internet ([www.bkw.ch](http://www.bkw.ch)).

## 10 Significant changes since 31 December 2011

### Organisational changes

No significant changes.

### Staff changes

No significant changes.

## Appointments

The Group Executive Board made the following appointments in the course of the 2011 financial year:

### Business unit head

Michel Bösiger, Head of Human Resources

Christoph Matter, Head of Sales Partners and Subsidiaries,  
Energy Switzerland

Markus A. Meier, Head of Steering and Participations,  
Networks

Peter Wildhaber, Managing Director of cc energie sa

### Department head/specialist

Christoph Betschart, Managing Director of Elektrizitätswerk  
Grindelwald AG

Stephan Bütler, Head of Asset Management,  
Energy Switzerland

Martin Burgener, Deputy Managing Director, BKW Wallis AG

Andreas Ebner, Head of Network Development

Reto Gaggioli, Head of Technology Standards & Procurement,  
Wind International

Thomas Gertsch, Head of Projects, Mühleberg Nuclear  
Power Plant

Thomas Herren, Corporate Lawyer

Medard Heynen, Managing Director of BKW Wallis AG

Oliver Krone, Head of Metering, Networks

Benjamin Märklin, Head of Asset Management & Services,  
sol-E Suisse AG

Gian Marco Maier, Head of Asset Management,  
Wind International

Daniel Müller, Head of Business Operations, Networks

Martin Nicklas, Head of Project Development, sol-E Suisse AG

Michael Paulus, Corporate Developer, Corporate Steering  
Adrian Peter, Head of Product Management and

Energy Efficiency, Energy Switzerland

Ezio Salvo, Head of Business Development, Wind International

Walter Schmied, Regional Head, sol-E Suisse AG

Frank Schönfeld, Head of Business Support,  
Energy Switzerland

Arnold Trümpi, Head of Hydro France

Rolf Tschampion, Head of Installation and Maintenance,  
Networks

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