# Alpiq performed very well in a still fragile market environment



Antje Kanngiesser and Johannes Teyssen

## Dear reader,

After 18 months of crisis management, 2023 can be described as a year with a strong operational focus. We moved from pure risk control and liquidity management to operational excellence, profitability and a "Secure Base Leadership" culture. This translated into a very good performance and a significantly strengthened balance sheet at the end of 2023. Within a year, net debt of CHF 107 million had been turned into net cash of CHF 347 million, underlining Alpiq's sound financial situation as a result of excellent operational performance in challenging times. The significant reduction of the price environment relieved the pressure of margin and liquidity squeezes. Volatility was still meaningful, but significantly below the erratic moves of the previous year and allowed us to exploit our key strength of flexibility management for our customers. In a nutshell, the embedded flexibility in our Swiss hydropower and European spread assets, along with our trading and origination competence, has proved once more to be a key enabler in increased renewable energy production.

With the commitment of the Board of Directors, Management and our employees, we have once again made a significant contribution to the security of supply in Switzerland and large parts of Europe. We take pride in living up to our purpose of contributing to security of supply and a better climate, and inspiring our stakeholders to join us. Once again, our teams ensured the highest availability of our plants, allowing us to supply electricity when needed. We also completed several important refurbishment projects in 2023. For

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example, in Valais the renovation of the Fionnay and Nendaz power plants and the penstock between Lake Dix and the Rhône Valley was completed after more than six years of work. The power plants (part of the Grande Dixence complex), which date from the 1960s, have been completely renovated via 89 sub-projects since 2016, and gradually resumed operations at the start of 2023 – about nine months ahead of schedule. Thus, an additional 450 MW of power was made available in the critical winter months of 2023. In the Simplon region, Energie Electrique du Simplon (EES) completed the full renovation of the Gabi hydropower plant, which opened in 1957, enabling average annual production to increase by about 15% to 44 gigawatt hours (GWh). All works came in on budget and on time.

In 2023, the Swiss authorities launched the second tender for the hydro winter reserve and again Alpiq gave the biggest commitment to ensure security of supply in Switzerland, at the expense of higher profitability of other businesses. Instead of maximizing profit, we focus repeatedly on security of supply in Switzerland and neighbouring countries.

# New value chain steering has driven our performance

Our purpose has also been at the heart of our dialogue between Management, the Board of Directors and shareholders on Alpiq's future strategic direction. Since 2021, Alpiq has focused on its core competences and core markets in order to increase resilience and profitability for future investments in security of supply and climate-sensitive operations. Climate protection and security of supply do not naturally go hand in hand. That's why we are determined to find viable solutions that take the environment, society and the economy into account. In 2023, Alpiq's Board of Directors confirmed this strategic path and Alpiq's further development as a low carbon flexibility provider through its Asset, Trading and Origination business. We want to contribute significantly to the low carbon energy transition with increased security of supply and are committed to becoming net zero by 2040. However, our claim to sustainability goes far beyond a net zero target; it determines how we do business. We have issued a new Code of Conduct, which is at the core of our sustainable business transformation alongside responsible corporate governance and meaningful social responsibility. Our diversity is a key lever that contributes to our performance. In 2021, we became a member of 'Advance - gender equality in business' and set our target of increasing our share of female leadership from 6% to 33% by 2030. In 2023, the proportion of female leadership was 25% and there's more to come. We further strengthened our assurance by appointing KPMG as the new external auditor and it has been successfully onboarded. Other actions taken to minimise our footprint can be read here in our sustainability report.

In 2023, our new value chain steering was fully implemented and has driven our performance. Abandoning a divisional perspective and managing value with a disregard for organisational layers has also proven extremely effective in promoting cross-divisional cooperation and understanding of what matters most. The focus on creating value for the entire company characterises the way we think and act, and ultimately leads to a significant improvement in operational performance.

As Michael Wider, Head of the Switzerland Division, decided to retire in 2024, we have been able to find in Amédée Murisier an excellent internal successor and addition to Alpiq's Executive Board. Michael has played a key role in shaping Alpiq and EOS for more

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than 20 years and the Swiss energy industry for even longer. We would like to thank him for his tireless and valuable commitment to the company and express our deepest respect for his work. We are convinced that we have the right successor in Amédée. He knows Alpiq, our challenges and the opportunities ahead of us.

Following the very strong result in 2023, we are confident that we will perform well in 2024. Our highly flexible and reliable production plant portfolio helps to ensure security of supply across Europe. Not only is the value chain element Assets expected to generate good results, but the well-positioned Trading business and the firmly anchored Origination business, based on its long-term customer relationships, are also expected to do well. In line with our strategy, we will continue to focus on our core markets and competences. We will invest in our flexible production portfolio and expand our Trading business and Origination activities.

## Our strategic ambition is to better support the security of supply

Our ambition is to better support the security of supply in Switzerland and the muchneeded decarbonisation of the European energy system. Our Board of Directors shares
this and has approved this new strategic ambition. The energy transition is doomed to fail
without a different and better integration of the growing base of intermittent wind and
solar energy capacities. This needs to be balanced with a reliable and consistent
electricity demand by all customers. And it is precisely in this area that we want to play a
role. With our extensive and highly flexible hydropower fleet, we offer the necessary
flexible solutions. We have been one of the leading players on the European markets for
decades. In recent years, we have even strengthened this position. But we now intend to
move beyond these assets and capabilities to become a leading player in delivery of a
wider range of technologies and commercial solutions to systems and customers. Our
successful future investments will ensure that a new green energy supply can be added to
the system – not risking but strengthening security of supply. Alpiq will become an
important and growing enabler and integrator of tomorrow's cleaner, better,
decarbonised and reliable energy system.

We are aware that despite the easing in the energy markets, some uncertainty remains on how the markets will develop in 2024. Nevertheless, thanks to our strong financial position, we expect to maintain our good liquidity and net cash position in 2024. We continue to invest in our leadership development and are most grateful to our committed employees, whose very positive feedback in the group employee survey provided management with strong indications on how to pursue this course.

The Board of Directors of Alpiq will propose to the Annual General Meeting on 30 April 2024 that a dividend of CHF 3.5 per share totalling CHF 116 million is distributed for financial year 2023.

27 February 2024

Johannes Teyssen
Chairman of the Board of Directors

**Antje Kanngiesser** CEO Alpiq Group Alpiq Annual Report 2023 Key Financial Figures 6

# Key Financial Figures

## Results of operations (before non-operating effects)

CHF million	2023	2022	% change
Net revenue	8,396	14,861	- 44
Earnings before interest, tax, depreciation and amortisation (EBITDA)	1,184	473	> 100
As % of net revenue	14.1	3.2	
Earnings before interest and tax (EBIT)	1,072	353	> 100
As % of net revenue	12.8	2.4	
Net income	820	172	> 100
As % of net revenue	9.8	1.2	

## **Results under IFRS**

CHF million	2023	2022	% change
Net revenue	8,959	14,631	- 39
Earnings before interest, tax, depreciation and amortisation (EBITDA)	1,806	346	> 100
Earnings before interest and tax (EBIT)	1,694	249	> 100
Net income	1,336	111	> 100

CHF million	31 Dec 2023	31 Dec 2022 (restated) <sup>1</sup>	% change
Total assets	10,475	15,077	-31
Total equity	4,811	3,529	36
As % of total assets	45.9	23.4	
Net debt (cash)	- 347	107	> - 100
Net debt (cash) / adjusted EBITDA	- 0.3	0.2	

#### 1 See note 1.4 of the notes to the consolidated financial statements

	2023	2022	% change
Own production (GWh) <sup>1</sup>	16,840	17,450	-3
Number of employees at the reporting date <sup>2</sup>	1,221	1,180	3
Of which in Switzerland	672	647	4
Of which in surrounding European countries	549	533	3

<sup>1</sup> Net share attributable to Alpiq from total power plant production (after deducting pumped energy)

<sup>2</sup> Full-time equivalents

# Milestones

# Grande Dixence: maintenance progressing quickly

## 27 January 2023

Almost 60 years after the commissioning of the Grande Dixence hydropower plant, extensive renovation and maintenance work is carried out along the entire pressure pipe between the Lake Dix reservoir and the Rhône Valley. After more than six years of work, the Fionnay and Nendaz hydropower plants and the pressure pipe connecting both plants to the Lake Dix reservoir are partially operational again nine months earlier than originally planned. This means that the plant will come back onstream at a time when Switzerland has a particularly pressing need for power. Grande Dixence SA and its shareholders are investing a total of CHF 240 million.



The extensive renovation of the Grande Dixence hydropower plant.

# New fish pass at the Flumenthal hydropower plant

## 16 February 2023

Alpiq is building a completely new fish pass at the Flumenthal hydropower plant in the Canton of Solothurn. In future, it will meet all the fish migration requirements for the Aare river. As the operator of the hydropower plant, Alpiq Hydro Aare AG is investing a total of CHF 10.5 million in the new 480-metre-long bypass watercourse. By doing so, the company is renovating the fish pass that has been in place since 1970 as it is no longer fit for the purpose of fish migration. The new, state-of-the-art fish pass guarantees the upstream migration of fish, and it is expected to become operational in 2024.



Construction of the new fish pass at the Flumenthal hydropower plant.

# Alpiq records strong operating result and high positive cash flow

# 23 February 2023

Alpiq achieves a strong operating result in the extremely turbulent environment of 2022. Adjusted EBITDA increases to CHF 473 million, 51% higher than the previous year. Alpiq's decisive action and targeted measures has enabled it to minimise liquidity risks and overcome the challenges of the volatile energy market using its own resources. Alpiq has been able to make a significant contribution to the security of supply in Switzerland and Europe by managing its highly flexible and efficient production facilities in a proactive manner. Over the coming years, Alpiq and partners aim to invest over CHF 1 billion in the expansion of renewable energy.



Alpiq records strong operating result in 2022.

# Stronger focus on key business

#### 27 March 2023

Alpiq sells its Bulgarian businesses (Alpiq Energia Bulgaria, the Vetrocom wind farm and Alpiq Wind Services) to the Austrian Renalfa Group and, as a result, continues its strategy of focusing geographically on its core markets. In addition to investing in Swiss hydropower, Alpiq is also developing new wind power and photovoltaic projects in Switzerland, Spain, Italy, France and the Nordic countries in order to consolidate the security of supply and expand its climate-friendly power production.

All 31 Alpiq employees in Bulgaria will continue to work for the Renalfa organisation in the renewable energy sector. The sale has been fully completed in the first half of 2023 after completing the usual formalities, in particular approval from the competition authorities.



Alpiq sells its business in Bulgaria and concentrates on its European core markets.

# Tormoseröd wind farm takes shape

#### 30 March 2023

Alpiq and the Swiss company FuGen (Future Generation Renewable Energy) are jointly developing the Tormoseröd wind farm in south-west Sweden. Construction is making progress, and the towers of the first four turbines are erected in spring 2023. The Tormoseröd wind farm, which is located between the towns of Strömstad and Tanum, is a joint project between Alpiq and FuGen.

The 11 wind turbines have a total output of 72.6 megawatts (MW) and their annual production is expected to amount to around 220 gigawatt hours (GWh) of power. The final work on site is completed at the end of 2023, with the wind park put into operation following final tests.



The Tormoseröd wind farm consists of 11 wind turbines.

# Leadership development for all managers

## 03 April 2023

In April 2023 the Secure Base Leadership journey was launched for all Alpiq's line managers. Some months before Alpiq's top management attended a training program at IMD Lausanne to define in a collaborative approach the foundation of Alpiq's understanding of leadership. This then led to the co-creation of a first version of Alpiq's leadership principles, which were then launched for the organisation. The secure base leadership programme for the line managers moved away from pure theory to experiencing what secure base leadership means. It received positive feedback and will be continued in 2024 and 2025.



A special training programme provides management with the foundations for Alpiq's understanding of leadership.

# Ronald Trächsel joins the Board of Directors

#### 26 April 2023

Ronald Trächsel is elected to the Board of Directors at the Alpiq Holding Ltd. annual general meeting held on 26 April 2023. Ronald Trächsel starts working in this role on 1 July 2023. He succeeds Phyllis Scholl, who leaves the Board of Directors on 26 April 2023. Ronald Trächsel was CFO for the BKW Group from 2014 until 30 June 2023.

"We are very happy to have someone with Ronald Trächsel's proven financial expertise and familiarity with the energy sector. His expertise will make him a perfect addition to the Board of Directors," say Johannes Teyssen, Chairman of the Board of Directors at Alpiq.



Newly elected to the Board of Directors: Ronald Trächsel.

# Alpiq to partner the 2025 UCI Mountain Bike World Championships in Valais

#### 31 May 2023

Alpiq is the main partner of the UCI Mountain Bike World Championships, which will take place in Valais from 30 August to 14 September 2025. As a leading Swiss electricity producer, Alpiq operates a number of important hydropower plants in the Valais and has numerous hydropower projects to increase storage capacities for winter periods. Alpiq is proud to support this sustainable elite sporting event.

This partnership will give Alpiq the opportunity to showcase its connection with Valais, strengthen its close cooperation with local municipalities and consolidate its desire for long-term cooperation with the Valais authorities.



Support for the World Championships in Valais.

# A "solar forest" for Gondo

### 19 June 2023

The Gondosolar solar project in Valais uses photovoltaic panels in the form of a solar tree. The innovative design promises to minimise environmental effects while maximising returns. At the voters' meeting held in mid-June 2023, voters in the municipality of Zwischbergen once again voted in favour of constructing the photovoltaic plant and contributing 35% of the costs of the project. The Gondosolar project partners are focusing on optimal integration into the sensitive Alpine landscape as well as soil protection.

The PV panels are designed with a tree-like structure and arranged in the form of a forest. The "solar trees" can better counteract the strong snow drifts on the so called Alpjerung. 16 bifacial PV panels are mounted crosswise on a vertical mast, creating a tree-like structure. The solar trees of the Gondosolar project are significantly better integrated into the landscape as they look like a sparse mountain forest. The project team worked closely with a natural hazards advisor and a PV technology advisor to come up with the innovative new plant design.



Solar trees from the Gondosolar PV project in Valais.

# Nant de Drance celebrates its first birthday

#### 03 July 2023

At the beginning of July 2023, the Nant de Drance pumped-storage power plant started its second year of operation. Over the last year, the 900-megawatt power plant has been underscoring its importance in stabilising the Swiss and European power grid in the face of fluctuating solar and wind energy production. The extremely reliable power plant machines can react flexibly to market fluctuations. Specifically, the Nant de Drance pumps water from the lower Emosson reservoir to the upper Vieux Emosson reservoir whenever there is a power surplus in the grid. However, when demand for power is higher than power production, Nant de Drance channels the water stored in the upper reservoir through the turbines.

This constantly changing power demand has an effect on market prices. "Even after just one year, we have noticed how the operation of the Nant de Drance machines has a corresponding effect on market prices. As such, the power plant is performing its task of stabilising the power grid and, in doing so, contributing to security of supply," says Amédée Murisier, Chairman of the Board of Directors of Nant de Drance SA.



One year of successful operation: the Nant de Drance pumpedstorage power plant.

# Alpiq achieves a very good half-year result

## 24 August 2023

Alpiq achieves a strong half-year result in 2023, with adjusted EBITDA of CHF 787 million in addition to very robust operating liquidity of CHF 1.7 billion. The decision at the end of 2021 to focus on core business in selected countries, adjusted risk management and the new management system are bearing fruit. "The results show that we have done our homework: stronger focus, fewer risks and significantly improved cooperation. This is now also reflected in the good figures across all businesses," says Alpiq CEO Antje Kanngiesser.

Very flexible production facilities, a good trading position and a well-established origination business put Alpiq in a good position for the second half of the year in a challenging market environment.



Alpiq performs well in the first

# #prixalpiq 2023 winners include water management projects

## 22 September 2023

Winners in the third edition of the #prixalpiq include two projects that aim to optimise water resource management in the light of climate change and reduce water consumption. The 2023 #prixalpiq was awarded to the "Water sources and climate change" project from the town of Martigny and the Centre de Recherche sur l'Environnement Alpin (Centre for Research on the Alpine Environment, CREALP). The Coup de Cœur prize awarded by the jury went to the "Save water, it's easy!" awareness-raising project by the towns of Finhaut and Trient.

Alpiq organises the #prixalpiq together with the Association of Valais Concession Authorities (ACC). The projects submitted for the #prixalpiq provide information concerning the various water management challenges facing towns in Valais, and showcase the solutions that they are currently developing in order to adapt effectively to climate change.



The #prixalpiq raises awareness about responsible water usage.

# Gabi hydropower plant fully operational again after extensive renovation

#### 23 September 2023

Energie Electrique du Simplon (EES) officially opens the Gabi hydropower plant on 23 September 2023. In spring 2023, EES completes the full renovation of the Valais power plant, which opened in 1957. With renovation work now completed, average annual production will increase by about 15% to 44 million kilowatt hours (kWh). By renovating the Gondo (2017), Tannuwald (2020) and Gabi (2023) power plants, EES now has efficient facilities to guarantee reliable and local power generation from renewable sources on the southern side of the Simplon Pass over the coming decades.

EES has invested over CHF 37 million in the complete renovation of the Gabi hydropower plant. The machine groups generated the first kilowatt hours in May 2023. The new power plant was then opened in September 2023, marking the completion of a challenging project to renovate the three power plants.



The Gabi power plant is operational again after full renovation.

# Energy decree passed by Swiss parliament

#### 29 September 2023

In autumn 2023, the Swiss parliament made an important and pioneering decision for Swiss energy policy with the so-called "Mantelerlass". This energy decree paves the way for higher domestic power production by solar, wind and hydropower plants. In all areas of electricity production, certain locations will in future be given priority over nature conservation. The aim is to add storage capacity and hence to produce more renewable energy in the winter months and, therefore, prevent power shortages in winter.

During the final vote on 29 September, the new Federal Act was passed in the National Council (Nationalrat) by 177 votes to 19, without any abstentions, and in the Council of States (Ständerat) by 44 votes to 0, without any abstentions.



Energy decree: the Swiss parliament in Bern passes the "Mantelerlass".

Photo: Parlamentsdienste 3003 Bern/Goran Basic

# Official opening of the renovated Grande Dixence power plant

#### 20 October 2023

The commissioning of the Fionnay and Nendaz power plants and the pressure pipe between Lake Dix and the Rhône Valley means that the comprehensive renovation work by Grande Dixence SA has been fully completed. The power plant, which dates to the 1960s, has been completely renovated via 89 sub-projects since 2016, and has gradually resumed operations since the start of 2023.

The expensive renovation work means that Grande Dixence can now continue to reliably fulfil its role as a key systemic power plant over the coming decades and also contribute to ensuring a more secure power supply in Switzerland. The power plant can feed the power grid with enormous amounts of power in just a few minutes, therefore maintaining the balance between power supply and demand.

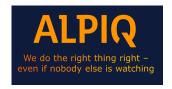


Completely renovated and fully operational again: the Grande Dixence power plant.

# Alpiq introduces a new Code of Conduct

#### 26 October 2023

The Code of Conduct reflects Alpiq's way of doing business and commitment toward society. As Alpiq and the society as a whole change, so evolve the expectations placed on Alpiq. Alpiq seeks to keep pace with these changes. The new Code of Conduct gives important details and is directly addressed to all of Alpiq's stakeholders, be it employees, shareholders and business partners. It takes a strong stand on business integrity and sets new standards or reemphasize key messages.



The new Code of Conduct defines integrity and responsible behaviour within business.

# Strategy confirmed by the Board of Directors

#### 6 December 2023

In 2023 Alpiq has worked intensively on Alpiq's strategic directions. Together with its Board of Directors Alpiq committed to a strategy that makes the company resilient while contributing decisively to security of supply and a better climate with a clear net zero target for 2040.

The strategy confirms today's core business and builds its future on Alpiq's expertise. Alpiq has a strong asset base of flexible hydropower, thermal and nuclear plants and will manage this low-carbon and flexible business in the best possible way. Alpiq will continue to invest in assets and especially increase storage capacity and winter production (hydro, wind, alpine PV). Special emphasis will be placed on the expansion of flexibility technologies. These are crucial for accelerating decarbonisation and integrating renewable energy production to increase security of supply. Alpiq will also expand its trading capabilities and support customers in their flexibility management and ambition to become carbon neutral.

# Our strategy Flexibility Existing business Trading Origination

The strategy confirms today's core business and builds its future on Alpiq's expertise.

# Scheduled modernisation of the San Severo power plant

### 15 December 2023

In 2023, Alpiq invests in its Italian gas-fired combined-cycle power plant in San Severo and completes the first part of a comprehensive modernisation plan in mid-December. By the end of 2024, several key components of the power plant will be replaced in two major steps. The modernisation will not only extend the service life of the power plant, but also improve its performance and efficiency. Once the renovation has been completed, the power plant will also be able to burn up to 25% hydrogen while also enhancing Italy's security of supply.



The San Severo gas-fired combined-cycle power plant is comprehensively modernised.

# Change in the Alpiq Board of Directors

#### 19 December 2023

At the extraordinary General Meeting of Alpiq Holding Ltd. held on 19 December 2023, Adèle Thorens Goumaz and François Gabella were elected as two new members of the Board of Directors. They replace Jean-Yves Pidoux and Aline Isoz. Both new members will start their roles on 1 January 2024.

The Chairman of the Board of Directors, Johannes Teyssen, thanked the two retiring members for their service to Alpiq: "Jean-Yves Pidoux has served the Alpiq Board of Directors with discretion since its foundation and has helped shape the company with his positive behaviour and sharp intuition. Aline Isoz was able to successfully contribute her expertise in the important areas of corporate responsibility, ethics and diversity, as well as the digital transformation."

"I am very happy about the election of the two new members of the Executive Board. With their political background for one and their technological expertise for the other, Adèle Thorens Goumaz and François Gabella will enrich the board in many ways," adds Johannes Teyssen.





# Our Value Chain Steering

From 2023 onwards, Alpiq is steering its business in line with business value creation. The 2022 annual results were therefore the last to be based on a divisional view (Switzerland, International, Trading).

We have chosen this value chain perspective because it gives us a holistic view of our value creation. By taking a clear view along the value chain, we not only achieve greater transparency, but our organisation is also able to set the right focus.

Developments of the past 24 months have strengthened our conviction that this new steering and reporting approach is the right way forward. Not only does it provide us with the right decision-making insights, but managing risk and liquidity along the value chain is crucial in enabling us to better anticipate inflows and outflows in volatile markets.

To achieve this, we have identified three elements of the value chain that are critical to the business: **Assets, Trading,** and **Origination**.

Value chain steering is already a reality in our daily business. By taking the new integrated approach, we optimise value for Alpiq along the entire chain. The new steering and reporting structure reflects this.

# Assets

The value chain element Assets contains the Group's own production and asset trading. It combines Generation and Asset Trading, which jointly execute the commercial strategy. Alpiq successfully manages power plants all over Europe and thus has a tremendous amount of experience in asset management, covering the value chain.



# Spotlight: The role of asset-backed trading

For a producer like Alpiq to meet the day-to-day demand for electricity, we need to have a sophisticated asset trading capability. It is a 24/7 business driven by fluctuating demand and supply across all time horizons. Some factors, such as regulatory developments or the phase-out of coal and nuclear, influence demand and market prices several years ahead. Other factors, like the weather, drive demand over a much shorter time frame, and even in real time. The green energy transition with volatile energy production from renewable energy sources like solar and wind requires flexibility. Thanks to our powerful and flexible hydropower and thermal power plants in Switzerland and abroad, Alpiq can be seen as a key enabler of integrating renewable energy sources efficiently into the energy market. We spoke to Christoph Bellin, Head Asset Trading, to find out more about asset-backed trading.

## Christoph, why is asset trading so important to the security of supply?

Electricity trading is necessary to ensure a secure and efficient electricity supply. The needs of consumers in the short and long term create price signals on the market. Energy consumption, as well as parts of the power plants – such as the renewables, nuclear, and coal-fired units – can only be controlled to a certain extent. However, other electricity production technologies such as (pumped) storage hydropower, batteries or gas-fired CCGTs can be dispatched very flexibly according to the needs of the market. Our highly flexible asset fleet creates an excellent position for Alpiq in this environment.

## So, is it mainly about finding the right mix of power plant profiles and technologies?

Not only, someone to bridge the demand from the market with the capabilities of the powerplants, and this is where Asset Trading plays a crucial role. It is our role to anticipate the price signals from the markets and enable the most efficient use of a power plant for Alpiq. We optimise the dispatch of each production asset for the benefit of Alpiq as a producer, but also for the benefit of the electricity consumers. We achieve this by trading a wide range of products on different market platforms across the entire time horizon from near real-time to several years ahead.

## What does a typical day look like on the Asset Trading team?

To put it in simplistic terms, we run a set of optimisation models and algorithms every day to calculate the best possible production schedule (dispatch) for each of the assets in our portfolio, taking into account the price forward curves as well as the given constraints. This input then has to be combined with the relevant risk factors and price scenarios in order to trade the resulting positions on various markets.



Christoph Bellin
Head Asset Trading, Alpiq

#### What are the risks?

Let me give you an example. In terms of our Swiss production portfolio, we essentially have to contend with an illiquid Swiss market environment given the size of our portfolio. Although we try to hedge as much of our flexible energy production to Swiss customers, we still have a large residual production profile that needs to be optimised and traded with our neighbouring countries due to the lack of liquidity in our domestic market. In this example, we are exposed to a risk in terms of the evolution of the price spread between Switzerland and our neighbours.

# Is it really necessary to sell electricity to neighbouring countries? Shouldn't we focus on serving Swiss needs?

It is important to understand that cross-border trading does serve Swiss needs. Switzerland is not an island and strongly connected to the European power grid. Demand and supply needs change hourly, daily but also seasonally, Switzerland, Alpiq and our neighbourhood countries all benefit from an efficient exchange of energy across borders, as this allows to balance the different needs across a larger geographical area. The combination of Swiss hydro flexibility and cross-border trading is a strength, allowing us for example to preserve water in our hydro reservoirs by importing energy on days with lower prices driven by high renewable production in our neighbouring countries. Likewise, we can export electricity when demand is low in Switzerland. Or take the Swiss hydro reserve for the winter season, for example. Alpiq has contributed substantially to this reserve and cross-border trading played a crucial role here.

## You mentioned market liquidity in Switzerland. Is this also a factor?

Yes, certainly. Producers such as Alpiq would often like to trade more in Switzerland, but production needs to match demand. Until now, many consumers in Switzerland have not seen the need or been able to secure their energy supply in the long term. Therefore, if a producer like Alpiq needs to secure the value and reduce the risk of an asset portfolio, it often has little other option than to use the more liquid markets in our neighbouring countries.

# In Switzerland, we are very proud of our flexible hydropower. If electricity prices were to rise next week due to cold weather, could we sell the additional demand from our flexible hydro portfolio?

Potentially yes, depending on if the water in the lakes have been sold already at an earlier stage or not. But no doubt, with our diverse and flexible hydropower portfolio we can serve the different needs from electricity customers as well as grid operators by constantly reoptimizing, trading and dispatching the assets in the most optimal way. As the different needs not always match in terms of timing or profile, it is also the role of asset trading to warehouse and offset the residual risks accordingly.

#### What role will asset trading play in future?

The expansion of renewable energy sources, the increase in electricity demand and the introduction of new technologies will generate even more volatility in the energy markets. Asset trading will play a central role in bridging demand and supply. There are many uncertainties out there, but one thing we can be certain of is that our industry will grow substantially, the competition for talent will increase, and best-in-class technology will be key to staying competitive. Using our skills and capabilities, we will contribute to achieving a more sustainable and cleaner energy ecosystem.

To allow electricity surpluses or shortages to be balanced ahead of delivery, the market is split into different trading platforms according to time frame, e.g.:

- **Forward market**: where transactions are made from weeks to years ahead of delivery.
- **Spot market**: where trades are made in a day-ahead time frame.
- Intraday markets: where transactions take place in close to real time.

Transactions are made either on energy exchanges, via bilateral (over-the-counter) contracts with other market participants or with a grid operator such as Swissgrid.

Connecting Alpiq's production assets to the energy markets by anticipating the risks, prices and opportunities on these different markets is the mission of Alpiq's Asset Trading unit. The unit is organised into different teams according to the process, the type of asset (e.g. hydro, thermal) and the trading time horizon.

# Trading

The value chain element Trading relates to proprietary trading activities involving electricity, gas, emission allowances and other certificates. It maximises Alpiq's profit by leveraging the balance sheet, taking unhedged market risks and providing market access.



Spotlight: "The purpose of energy trading is to mitigate risk"

Switzerland is long in summer and short in winter. That is, we produce more electricity than we can use in summer and less than we need in winter. As electricity is not easy to store, it makes sense to sell the excess electricity in summer and buy the electricity we lack in winter. In other words, electricity trading is necessary to ensure security of power supply in Switzerland. Swiss utility companies participate in the energy markets, e.g. via the EEX, where they buy and sell electricity to balance their portfolios. There is no specific marketplace in Switzerland. Such a market would be too small to be "liquid". Marketplaces have been introduced in Europe to increase transparency and provide security to the market participants. Electricity can be bought and sold in advance (forward) as well as on the spot market (day ahead, intraday). It is common for market participants to buy and sell electricity several years in advance in order to hedge against potential falls (producers) or rises (consumers) in price. However, trading is often viewed negatively by some sections of society and by many politicians. Some voices on the political spectrum call it pure speculation, saying that it will cause economic crisis or

result in the sell-off of Swiss electricity on the European wholesale market. Navin Parasram, Head Trading at Alpiq and Member of the Executive Board, sheds more light on the topic of energy trading.

#### Navin, why do we need trading?

We have different needs in society. We have consumers of energy and producers of energy, and we need to get energy efficiently from one to the other. We can do this via one big company that produces, supplies and feeds energy through the entire system. But this involves a large centralised construct. A more efficient approach is to have a third party. This can be a company acting as an intermediary between producers and consumers while optimising production to meet demand and cover shortfalls. However, the best approach is to have trading exchanges that transfer the risk from producer to consumer as efficiently as possible, with minimum infrastructure needed, and minimum loss along the way.

Navin Parasram Head Trading/Member of the Executive Board

#### Trading is often considered risky. Why is that so?

We often start with risk in life. As an energy consumer, I have to take the risks. What will the price of my electricity be next year? Is electricity going to be available? Will there be enough gas in Europe to generate power. These are questions that we all have to ask. And what we do as traders is to try and mitigate these risks. Trading helps us to get closer to the best possible market conditions. We can reduce risk further and further. But there is always some uncertainty left. We cannot guarantee all outcomes. We try to balance the mismatches in the system, and to supply from one party to the other, even if electricity needs to be sourced across the border. There is always that ultimate goal of trying to deliver efficiency and security of supply to the customer.

# Energy trading is sometimes associated with speculation. Where exactly is the speculative element?

It's a human desire to want certainty. For us we are really focused on hedging and securing supply, securing revenue for our business, and supplying our customers. Sometimes, doing these things requires us taking a risk. If there is a slight uncertainty regarding next year's electricity production, I need to make an estimate of how much production there will be. And this, by definition, is a somewhat speculative thing to do. But our motivation is not to bet on being right – or otherwise lose everything if we are wrong. We can never be certain how much it will rain or snow, so we need our technology and expertise to manage the risk as best as possible. As a company, we are not interested in being speculative per se. This is not our purpose.

#### Why don't we keep all our energy in the Swiss market?

Electricity is not storable, and it is the end commodity that we need. Here in Switzerland, we generate surplus electricity in summer but have an electricity deficit in winter. And we need to manage this somehow. Two options are open to us: participating in the European energy market and being connected to the grid so that we can fill shortfalls and get rid of our excess. Or building more capacity. Or we can do a combination of both. Ultimately, this is a very business-centric, cross-border approach. Ensuring effective electricity supply throughout Europe is a collaborative effort.

# Origination

The value chain element Origination relates to the optimisation of the production of electricity from third-party renewable energy as well as direct marketing and energy management for industrial and business customers. This includes the trading and marketing of standardised and structured products in various countries. The aim is to help our partners meet their cost efficiency and sustainability goals, with a view to increasing customer benefits and creating value. Moreover, Origination comprises the Swiss sales and origination business as well as retail activities in France.



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# Spotlight: How Power Purchase Agreements promote the transition to cleaner energy

In 2023, Alpiq signed several Power Purchase Agreements (PPAs) in the Scandinavian markets. What are PPAs and how important are they to Alpiq and its sustainable energy business? We asked Matti Ahtosalo, Head Northwest Europe in Alpiq's International division, for answers.

## Matti, what are PPAs and what role do they play?

PPAs are "Power Purchase Agreements" used in the renewable energy business. PPAs are long-term contracts between a power producer and a power offtaker. They play a crucial role in the energy transition towards a carbon-neutral future. Through PPAs, we find long-term solutions that on the one hand guarantee our client a carbon-free electricity supply and on the other hand facilitate the integration of renewable energy sources into the electricity market by guaranteeing offtake. For both parties, PPAs often provide price stability and budgeting certainty.

#### How does this work?

Well, it is actually quite easy. With long-term contracts, which can range from around five to 25 years or even longer, the producer can be sure that the energy produced finds an offtaker according to the agreed terms. Such contracts provide revenue certainty to the producer, thereby reducing financial risk. On the other hand, long-term contracts help the offtaker to meet sustainability and environmental objectives by ensuring a fully renewable electricity supply over the term of the contract. This also provides stability. This is why PPAs play a significant role in the growth of renewable energy projects. Because without them, projects like wind farms would never be built.

# PPAs play an important role in the Nordics. Is this because other subsidy schemes are less common there compared to other regions?

PPAs are not a form of financial subsidy or direct financial support from the government or any other entity. They offer a market solution instead, i.e. a market-based mechanism helping renewable energy project developers to secure long-term revenue and consequent funding that will make their projects financially viable. PPAs are a popular solution for wind farm projects in the Nordics and for solar projects in Spain – which is hardly surprising given how windy it can be in northern Europe and how often the sun shines in Spain!



Matti Ahtosalo Head Northwest Europe, Alpiq

## Why does being a party to PPAs matter to Alpiq?

Through our sustainable energy business, we want to contribute to a better climate and improved security of supply. PPAs allow us to do this on various levels. We support the other party on their journey to achieving their sustainability goals, which very often equates to carbon neutrality. At the same time, Alpiq is able to improve its sustainable energy business. We can gradually expand our renewable energy portfolio, support integration into the market with our powerful and flexible hydropower assets in Switzerland and therefore contribute to enhanced security of supply. We act as an enabler. We do not own any specific wind farm in the Nordics, for example. But we do our utmost to ensure that our customers get the green energy they need towards achieving carbon neutrality at their production facilities. We don't just talk, we act.

# About us



Photo: Alpiq/Andreas Mader

Alpiq is a leading Swiss electricity producer and energy service provider and is active throughout Europe. We offer our customers comprehensive and efficient services in the fields of energy generation, marketing and energy optimisation.

At Alpiq, business is always conducted based on **our purpose "together for a better climate and an improved security of supply"** and this purpose, together with our values and ethical standards, is engrained in our culture as a company. We pursue a sustainable, financially stable and risk-adjusted business model.

Alpiq has a strong asset base of hydro and thermal plants, nuclear and renewable assets. This low-carbon and flexible asset portfolio is operated and optimised in the best possible way. Our core business also comprises energy trading through electricity, gas and other energy products in many European countries. A sustainable and cost-effective energy procurement strategy is an important aspect of any business. Our Sales & Origination team supports industrial and business customers with sustainable energy management and a wide range of energy solutions and services.

We have about 1'200 employees and have our headquarter in Lausanne.

# Active throughout Europe

We are represented by branches in various European countries in trading, sales and energy services. We operate our own power plants in Switzerland, Italy, France, Spain, Hungary and Bulgaria (the Bulgarian wind farm Vetrocom was sold in the first half of 2023).



Our production stems from CO<sub>2</sub>-free technology such as hydropower and nuclear power in Switzerland and wind and photovoltaic power plants in several European countries. In Italy, Spain and Hungary, we operate modern and flexible gas-fired combined-cycle power plants, where the focus is on strengthening the security of supply with electricity, and in Hungary this is also combined with district heating. Our goal is to continuously optimise the efficiency of the plants in order to reduce emissions.

Through the further expansion of flexibility solutions, we enable the integration of renewable energy capacity into the energy system to further the transition towards a decarbonised energy supply. Alpiq is a pioneer in the production of green hydrogen in Switzerland and supports the reduction of carbon in heavy-duty traffic; we are constantly expanding our expertise in this area.

# Power Production in 2023

	Installed capacity	Installed capacity at 31.12.2023 <sup>1</sup>		Production 2023 <sup>2</sup>	
Power Plants (incl. related contracts)	MW	MW	GWh	GWh	
Hydropower		3,327		6,644	
Switzerland	3,027		4,704		
France <sup>3</sup>	300		1,941		
Small-scale hydropower, wind, photovoltaics		257		481	
Switzerland	21		63		
Bulgaria <sup>4</sup>	0		66		
France	13		35		
Italy	224		316		
Nuclear power		831		6,595	
Switzerland	676		5,865		
France <sup>5</sup>	155		730		
Conventional thermal power		1,308		3,121	
Italy	491		2,159		
Spain	414		514		
Hungary	403		447		
Total		5,723		16,840	

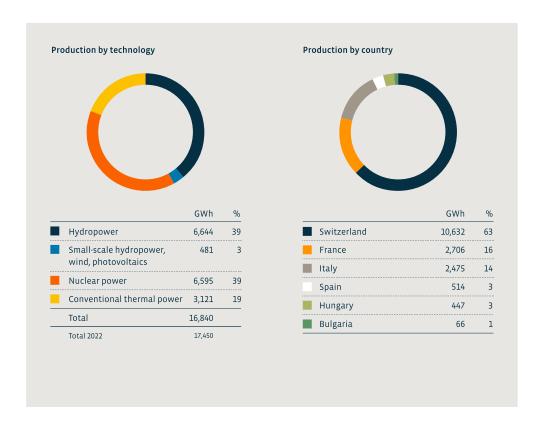
<sup>1</sup> Based on Alpiq's net share of total power plant production

<sup>2</sup> Net share attributable to Alpiq from total power plant production (after deducting pumped energy)

<sup>3</sup> Including base versus peak exchange contract

<sup>4</sup> The Bulgarian wind farm Vetrocom was sold in the first half of 2023

<sup>5</sup> Long term supply contract



# Value chain-based operating model

Instead of separate business divisions, Alpiq is now steered along the three value chain elements Assets, Trading and Origination. Alpiq's production and asset trading are mapped in the value chain element **Assets**. The value chain element **Trading** includes proprietary trading activities with electricity, gas, emission allowances and other certificates. The customer business for energy management, direct marketing of third-party renewable energy assets and structured energy products is combined in the value chain element **Origination**.

With the now established value chain-based operating model, we can react quickly, efficiently and sustainably to developments and leverage our collective expertise and effort – in the spirit of "One Alpiq". Value chain steering also means collaborating closely, learning and growing together, and taking collective ownership and responsibility. It means challenging the status quo and showing creativity as we focus on achieving lasting and positive outcomes. Above all, it means a commitment to transparency. Our task is to be open, to inform, to participate in the debate and to be accountable. It is only by ensuring that our stakeholders have access to clear and comprehensible information that we can safeguard the trust that is fundamental to our relationship.

The organisational structure, however, remains in the three business divisions: Switzerland, International and Trading.

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# Financial Calendar

- 28 February 2024: Annual Results 2023
- 30 April 2024: Annual General Meeting of Alpiq Holding Ltd.
- 23 August 2024: Half-Year Results 2024

