Vattenfall N.V. Annual Report 2018

# Fossil-free living within one generation

VATTENFALL

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# Report of the Management Board

## About Vattenfall NV

Vattenfall AB is one of Europe's largest producers and retailers of electricity and heat. Vattenfall's main markets are Sweden, Germany, the Netherlands, Denmark, and the UK. The Group has approximately 20,000 employees. The Parent Company, Vattenfall AB, is 100%- owned by the Swedish state, and its headquarters are located in Solna, Sweden. Vattenfall is organised in six cross-border Business Areas: Heat, Wind, Customers & Solutions, Generation, Markets and Distribution.

In 2018 it was decided that all main activities of Vattenfall will be executed by one brand. As part of that decision a rebranding strategy for Nuon was started. In 2019, the Nuon brand will gradually migrate from Nuon to Vattenfall. As part of this rebranding strategy, the legal name of N.V. Nuon Energy ('Nuon') was changed to Vattenfall N.V. ('Vattenfall NV') on 5 March 2019.

Vattenfall's operations in the Netherlands are carried out by Vattenfall NV and its subsidiaries. Vattenfall NV also operates one gas storage located in Germany. Vattenfall NV produces and supplies electricity, gas, heat and cooling, offering its customers a wide range of energy-saving products and services. Vattenfall NV has approximately 3,400 employees (FTEs) and more than 2 million customers in the Netherlands. With net sales reaching EUR 2.6 billion in 2018, Vattenfall NV holds a top-three position in the Dutch energy market. The activities relating to market access, trading and power plant optimisation are centralized in one central Continental hub in Hamburg for efficiency reasons as of 2017. The activities that serve and support Vattenfall NV's power plants and gas portfolio optimisation are also handled in Hamburg as of 2017, but are executed on behalf of Vattenfall NV.

For simplification purposes all Vattenfall Wind activities in the United Kingdom were combined in the Vattenfall legal structure, outside of the Vattenfall NV legal structure. As a result the activities in the United Kingdom are no longer consolidated in Vattenfall NV as of 31 August 2018.

Vattenfall AB has committed itself to the Swedish Corporate Governance Code (SCGC). Within the Vattenfall Group focus on the SCGC is therefore emphasised. More information about Vattenfall can be found in the 2018 Annual and sustainability report of Vattenfall AB and can be found at www.vattenfall.com. As part of Vattenfall, Vattenfall's NV financial and sustainability results are included in this Vattenfall report. More detailed information about Vattenfall's work with sustainability is also available at https://group.vattenfall.com/who-we-are/sustainability.

## Market Developments

As part of Vattenfall, Vattenfall NV is passionate to contribute to the transformation of the energy sector and drive the development to reduce our dependence on fossil fuels. Vattenfall NV is excited to see that the transformation of the energy sector continues and that customers and society are becoming more sustainable. This section identifies the key market trends that will shape the energy sector going forward.

### Customer centricity and sustainability are key to attracting customers, talent and investors

Global attention on climate change, driven by the Intergovernmental Panel on Climate Change (IPCC) report, the Paris Agreement and the UN's Global Sustainable Development Goals (SDGs) means that sustainability is critical for attracting customers, talent and investors. Customers are increasingly considering climate impact, social and environmental impacts, and energy efficiency when choosing energy solutions and suppliers. They want to minimise their carbon footprint both directly, through their choices of transportation and energy supply, and indirectly, through the businesses they support and engage with.

### Further electrification is a key enabler for reduced $CO_2$ emissions

Electrification represents an opportunity to reduce $CO_2$ emissions in transportation, heating and industry. In the Nordic countries, electricity generation is already almost fossil free, while on the European Continent, fossil fuels need to be phased out from the electricity system in parallel with further electrification. The key driver for electrification is a combination of cost efficiency and sustainability. Electricity has an increasingly important role to play in society, while suppliers of renewable electricity and heat play a key role in the work on combatting climate change.

The future energy system will consist of both centralised and decentralised energy solutions. Lower costs and improved functionality are driving a shift towards decentralisation, which is creating opportunities for new competitors and business models along various parts of the value chain. The importance of flexible technologies such as batteries is increasing, and market shares for conventional and centralised generation are decreasing.

However, centralised production and distribution will remain a system anchor for utilities also in the years ahead. The entire energy value chain is being digitalised, energy consumption is becoming increasingly smart, and new technologies are enabling loads to be steered to times when energy supply is high and price is low to relieve grid constraints. Efficient operation of energy utilities will require better data on the status and predictions of various loads and infrastructure, sophisticated forecasting techniques, and more powerful and complex algorithms for turning data into insights. Customers expect instant information, access and feedback, and customer service and interaction is moving from call centres to smartphone applications and internet-based solutions. Digitalisation and control of data, combined with advanced data analytics, are driving these developments.

## New competencies, speed in learning and diverse and inclusive teams are critical in the energy transition

As our industry transitions to new ways of interacting with customers, technology and society, new skill sets and competences are constantly required. Speed in learning and the ability to adapt to new ways of working are key competitive advantages that allow us to deliver new products and more efficient processes. To foster this learning environment and attract new talent, we are focusing on creating an inclusive company culture that is open to diverse viewpoints: we want to be the employer of choice. It is also key that we leverage external competence through partnerships and outsourcing of non-core processes.

## Cost efficiency is a prerequisite for value creation and growth in an increasingly competitive market

Globalised markets and lower perceived risk in renewable energy have resulted in an increasingly competitive environment, which is putting pressure on margins in our industry. This is tempering return expectations in both our core and new businesses. Value creation is increasingly derived from improved efficiency throughout the value chain. Efficient operations require high utilisation of people and assets, lean and digital processes and high cost awareness. Being able to deliver more in the same time and with the same resources is essential.

## Regulatory landscape

Finalisation of the Clean Energy Package dominated discussions also in 2018. The final outcomes of the 2030 target review are 32% renewable energy share and 32.5% improved energy efficiency. Following final adoption at EU level, the legislative files of the package are transposed into national legislation in the EU Member States. In addition, the Clean mobility package broadened the decarbonisation to the transport sector. The EU institutions are scheduled to adopt all legislative files by spring 2019 at the latest. The following European regulations implementations are of relevance to Vattenfall NV:

- **EU ETS directive** – On 8th April 2018, the revised EU ETS directive for Phase 4 (2021- 2030) entered into force. In particular, it provides for a steeper annual decline of the ETS allowance cap from 2021, a faster removal of surplus ETS allowances into the Market Stability Reserve (MSR) from 2019, and a permanent cancellation of a large amount of ETS allowances by 2024. The reforms are far-reaching and have caused the European $CO_2$ price to increase by more than 200 % since the agreement was reached, although Phase 4 has not yet begun.
- **EU long-term climate strategy** – In November 2018, the European Commission presented a new non-legislative initiative on an EU 2050 climate and energy strategy, updating the 2011 roadmap and offering a view of how to reach carbon-neutral EU economy by 2050. Alignment with the 2015 Paris Agreement is one of several new preconditions for the EU, as well as for many countries in other parts of the world. This includes the goal to limit global warming to 1.5 °C above pre-industrial levels. The EU 2050 roadmap was presented ahead of the COP24 summit in Katowice in December 2018 and is supposed to trigger a political discussion on revising the EU's long-term climate strategy, including a more ambitious EU 2030 climate target, as advised by the IPCC report. In the end, the EU Council must endorse the new EU climate ambition on the basis of the EU 2050 climate roadmap and the issue will be addressed at the special EU summit in May 2019. According to the Paris Agreement, the EU is expected to communicate a new international climate pledge (NDC) and a Mid-century low-$CO_2$ development strategy to the UNFCCC during the course of 2020.
- **European gas package** – In 2017, the European Commission announced the set-up of a so-called gas package, reviewing the existing gas policy in the light of the Clean Energy Package. The gas package will, next to gas-related topics such as retail issues and tariff regulation, also include legislative proposals on the role of gas in the European energy transition, as well as on hydrogen and sector coupling. Due to the appointment of the next European Commission in November 2019, a legislative proposal is expected at the end of 2019 at the earliest.

The European framework is translated into national initiatives and in the Netherlands have led to the following initiatives that have impact on Vattenfall NV's business:

- **A Concept Climate Agreement after a year of negotiations** – The Dutch cabinet requested societal parties to come up with a Climate Agreement that contains measures that jointly result in a $CO_2$ reduction of 49% by 2030. This agreement can be seen as a follow-up to the Energy Agreement of 2013 that runs until 2020/2023. More than 100 parties are joining the Climate Agreement negotiations ranging from private sector, civil society organisations to local authorities. The negotiations have taken place at five different sector tables, representing the different important segments in the energy landscape: electricity, built environment, industry, mobility and agriculture. The agreement contains opportunities for investment in renewables, sustainable heating, e-mobility and services. It should lead to over 70% of renewable power production, 2 million electric cars and 1.5 million houses free of natural gas. The measures proposed by each table will be quantitatively assessed and negotiations will continue in 2019. When adopted, the proposed measures of the Climate Agreement will be put into practice by the government through the introduction of new policy instruments, rules and regulations.
- **Ban on coal for electricity generation and Urgenda verdict** – In May 2018, the Minister of Economic Affairs and Climate announced that the Netherlands is moving to ban all coal in electricity generation. The direct ban on coal will be introduced by law and will come into force immediately. However, a transition period is introduced in the draft act: the newest coal-fired power plants will be closed no later than 1 January 2030. The two oldest plants, among which Vattenfall's Hemweg plant in Amsterdam, must close before the end of 2024. This decision was later changed in March 2019 when the Dutch Government announced that Hemweg 8 should stop using coal as fuel by end of 2019. In October 2018, the Court of Appeal in the Hague confirmed an earlier ruling that in 2020 the Dutch government has to reduce the Dutch $CO_2$ emissions by 25% compared to 1990. The Dutch government announced that they will come up with additional measures to comply with this ruling.
- **Continuation of tender system for offshore wind for "Hollandse Kust Zuid III and IV"** – Vattenfall won the Hollandse Kust Zuid I and II tender. The Government opened the tender process for Hollandse Kust Zuid III and IV at the end of 2018 and the process is again based on qualitative criteria. Subsequent tenders are to be based on auctioning after the new Offshore Wind Act has entered into force.

# Strategy

Vattenfall has formulated a strategy with the purpose to Power Climate Smarter Living and enable fossil-free living within one generation. This commitment to our customers, stakeholders and employees provides clear direction, engagement and focus as well as significant business opportunities. This strategy is fully implemented into Vattenfall NV operations. The Vattenfall strategy is summarised below to the extent to which it is relevant for Vattenfall NV's activities. For further context and details, we refer to Vattenfall's annual and sustainability report.

## Fossil free living within one generation – a powerful message and clear direction

Vattenfall has been electrifying industries, powering homes and transforming life through innovation and collaboration for decades, and we are now focused on the challenge of transitioning to a fully fossil-free energy supply.

We engage with business leaders, governments and non-governmental organisations to define and visualise the road ahead – through partnerships, policy discussions and innovative business endeavours. This brings a holistic understanding of energy markets, the value chain, customer needs and social impact. Together with our partners we take responsibility for finding new, sustainable and innovative ways to power the lives of our customers and electrifying the transportation sector, heating and cooling and other areas beyond our industry, to ultimately reduce or eliminate the use of fossil fuels in the society.

We believe that electrification is a key enabler for reducing $CO_2$ emissions from heating and cooling, transportation, and the manufacturing industry, in turn leading to an increased electricity demand. In combination with the phase-out of fossil-based electricity generation in our markets, this suggests a strong, long-term market for fossil-free electricity generation. Therefore, a growing, sustainable and cost competitive generation portfolio is strategically attractive. Further expanding of our renewables portfolio along with the $CO_2$ roadmap for phasing out coal in our heat operations are key components of the strategy.

### Vattenfall's strategy drives our contribution to the UN Sustainable Development Goals

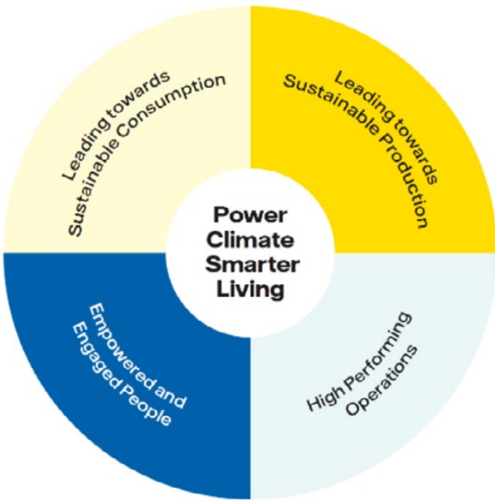

Our strategy and our purpose reflect the UN's Agenda 2030, in particular the Sustainable Development Goals for Affordable and clean energy (#7), Industry, innovation and infrastructure (#9), Sustainable cities and communities (#11), Responsible consumption and production (#12), Climate action (#13), and Partnerships for the goals (#17).

### We develop the existing business while building the new

Vattenfall's strategy builds on the goals set in our purpose, future trends and the competitive landscape in which we operate, combined with the requirements we have on our business. Our updated materiality analysis confirms that our strategy is aligned with stakeholder expectations. Vattenfall's strategy can be summarised in four strategic objectives:

- **Leading towards Sustainable Consumption** by increasing customer centricity, building a sizeable position in decentralised energy and promoting electrification and a climate smart society;
- **Leading towards Sustainable Production**, by growing in renewables and implementing our $CO_2$ roadmap to become **fossil free within one generation**;
- **High Performing Operations** through improving operational efficiency, accelerating digitalisation and taking social and environmental responsibility throughout the value chain;
- **Empowered and Engaged People** i.e. being an attractive employer, developing an engaging and inclusive culture and securing necessary competence through recruitment and continuous learning.

Achieving our strategic objectives will require that we accelerate our work in a number of important areas. Maintaining a competitive edge and financial strength are key prerequisites in this work. We will need to meet customers' needs faster, increase our efficiency ambitions, and raise the bar with respect to sustainability.



# Operational Performance

## Customers

Our goal is to be a truly customer-centric company, supplying a wide range of energy solutions and services to private and business customers in order to help customers to become fossil free. Satisfied customers are a prerequisite for the success of the business. Customer behaviour, driven by customer satisfaction and loyalty, has a significant effect on Vattenfall NV's financial results. Within the competitive consumer market we see an increase of our electricity and gas customers in 2018. The number of heat connections increased as well. Additionally we see positive development within Feenstra and Powerpeers, new solar propositions have been developed for B2B market and we saw an increase of customers numbers for both units. The acquisition of Delta Energie was announced in 2018 and concluded in March 2019. With the acquisition of Delta Energie we increased our customer number with approximately 170.000, offering 100 percent wind and tidal water energy generated in Zeeland.

Net Promoter Score (NPS) is a tool for measuring customer loyalty and for gaining an understanding of customers' perceptions of Vattenfall NV's products and services. Our focus in the last couple of years has been to put the customer first and to reward their loyalty. In 2018 the NPS was under pressure due to our pro-active tariff communication and adjustments of the pre instalments, mainly driven by higher taxes and wholesale prices. The downward trend in NPS was visible in the whole market. Our relative position compared to peers remains unchanged.

We believe in E-Mobility, as fossil free electrified road transport has great potential to reduce $CO_2$-emissions. In the Netherlands, Vattenfall NV owns over 4,100 charging points, operates over 6,500 charge points and is the market leader in the field of public charging, focusing on charging solutions for homes, businesses and cities with a differentiated range of services. In 2018, Vattenfall NV invested in 740 additional charging stations. Over 97,000 charging sessions take place monthly at our public charging stations, accounting for 11.7 GWh of green electricity and 58.5 million zero-emission kilometres. In 2018, the first fast charger was erected, resulting from a contract with a major fast-food chain. In addition, Vattenfall NV is switching its lease cars and own fleet to electric vehicles.

The Netherlands has set a goal to phase out natural gas in the built environment by 2050; at present more than 90% of residential heating in the Netherlands is provided by household gas boilers. We are supporting this transformation by offering cost-effective, low $CO_2$-emitting district heating, and have signed a deal with the city of Amsterdam to pursue these ambitions. With the Noorderwarmte pipeline in Amsterdam, we connected new areas to our district heating network, reducing $CO_2$ emissions by 70% for residents. Additionally, we are using a combination of residual heat from waste incineration plants, highly efficient gas CHPs, and renewable sources including biomass and solar. End of 2018, Vattenfall NV had around 120,000 Heat connections throughout the Netherlands. The total realised $CO_2$ reduction over 2018 was around 221,377 ton $CO_2$.

We are working to make it easy and affordable for customers to adopt climate-smarter living habits. This means that we are continuously developing our portfolio of decentralised energy solutions like solar panels, heat pumps and batteries. In 2018 solar in the consumer market has grown to a market share of approximately 5% within the existing build. In addition we realised 2 solar parks on our production locations where consumers were able to participate. We contracted over 40,000 solar panels at our business customers of which 4,000 panels were contracted in an operational lease product whereby we invest for the customer, making the investment decision easier for them. Feenstra installed over 50,000 solar panels, introduced a heat pump proposition in B2C market and realised a significant number of sustainable projects in B2B market (in corporation with the housing associations) including installation of a variety of hybrid-, full electric- and district heating solutions.

At Vattenfall NV, we also take our responsibility when it comes to the affordability of energy. In our own billing process and by working together with municipalities on early signalling and other creditors within the creditors' coalition. We offer customers various options, such as choosing your own payment date and payment arrangements, to prevent increasing debts. The initiative 'Nuon Verlicht' helps customers under judicial administration and we offer these customers a free energy scan to reduce their energy consumption and thus lowering their energy bill.

## Generation

Vattenfall NV's operations are primarily concentrated on two sources of energy: wind and natural gas. The total produced electricity in the Netherlands amounts to 17.1 TWh in 2018 (2017: 16.4 TWh), of which renewable production 1.2 TWh (2017: 1.2 TWh). The total availability of our plants in 2018 decreased compared to 2017, mainly due to outages at the Hemweg 8, Eemshaven, and the Noordzeewind wind farm.

The black start facility in Eemshaven was taken in operation in April 2018. The facility is used to restart the grid after a power blackout event in the Netherlands.

## Personnel and Safety

At year-end 2018, Vattenfall NV employed a total of 3,418 FTEs, a 2.4% decrease compared to 2017 (3,503 FTEs). This was mainly the result of the relocation of trading activities to Hamburg and a continuing focus on cost efficiencies and savings. Of Vattenfall NV's total workforce of 3,615 employees, 964 are female and 2,651 male.

Our goal is to have zero accidents. Despite our utmost efforts and relentless work on increasing strategic proactiveness in health and safety, accidents can occur. Such accidents are unacceptable, and we are making every effort to identify the underlying causes and act to prevent similar accidents in the future. During 2018 we had a strong focus on organisational and social health topics (such as stress, burn out, management from a distance, etc.), including our goal to have zero harassment. At the same time, we made safety improvements through health and safety leadership initiatives. We monitor health and safety development both for our employees and our contractors. Lost Time Injury Frequency (LTIF) decreased to 2.4 (2.6) in 2018.

## Diversity and inclusion

We as Vattenfall N.V. believe that by practicing Diversity & Inclusion we honour individuals, we inspire cooperation, creativity and innovation and we satisfy our customersí needs. Together we make the difference. We see Diversity & Inclusion not as an objective in itself. It's a matter of being the company we want to be and a company we are proud of. In the end it's about doing better business by making the most of all aspects of our skills and knowledge. To achieve change you need to know what to aim for.

These are the goals for Vattenfallís Diversity & Inclusion strategy:

Gender Diversity:

- Close the gap between female and male managers.
- Increase the share of female employees.

Diversity in Ethnicity and Cultural Heritage:

- Ensure that the ethnicity and cultural heritage of our workforce reflect the general public.

Inclusive Culture:

- Create a culture where people feel valued and able to contribute regardless of gender identity, sexual orientation, education, age, cultural heritage, ethnicity, experience, family status, beliefs, religion and perspectives.

## Investing in renewable energy

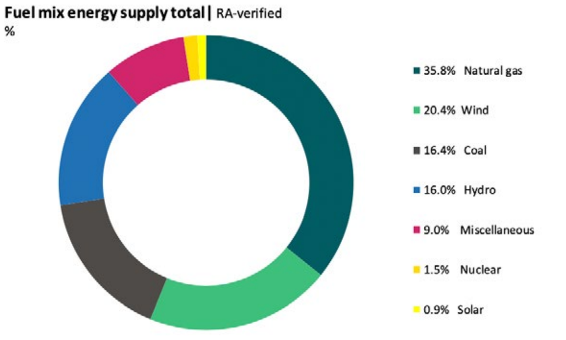
Vattenfall aspires to contribute to a renewable energy system in all parts of the value chain. Vattenfall NV contributes by continued investments in renewable energy. Vattenfall NV invested in the development of several wind farms in the Netherlands in 2018. The construction of wind farms Wieringermeer Extension (115 MW), Haringvliet (22 MW) and Moerdijk (27 MW) started in 2018. They are expected to become operational in 2020. The repowered Wind farm Slufterdam (29 MW), which was constructed during 2018, was opened in the beginning in 2019. Vattenfall NV has constructed new solar farms at the sites of existing assets in 2018 and for several other solar farms permit applications are ongoing.

In the beginning of 2018, Vattenfall NV won the tender to construct off-shore wind-farms on the locations Hollandse Kust Zuid I and II. Hollandse Kust Zuid I and II will have a total capacity between 700-750 MW, producing sufficient energy for 1.0 to 1.5 million households.

In addition, Vattenfall NV continues to invest in expanding its core district heating networks and connecting new customers to its district heating networks in collaboration with different municipalities. There are ambitious transitions plans from the city of Amsterdam that will lead to continuous high growth levels.

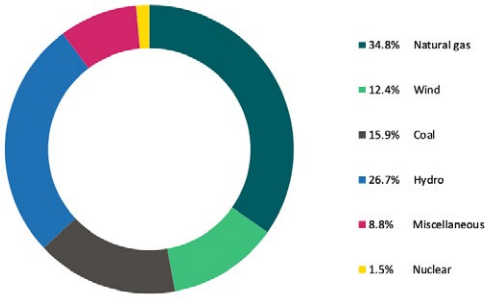
## Fuel Mix supply

All electricity suppliers in the EU are required by law to publish the fuel mix of the electricity they supply to customers. Our supply mix is shown in the figures on this and the next page, which illustrate that a large part of the energy supply in the Netherlands is sourced from natural gas. The share of renewable electricity represents the number of Guarantees of Origin (GoO) used for the green electricity supplied to end-customers. The share of renewable electricity increased by 6.8% from 30.5% in 2017 to 37.3% in 2018.



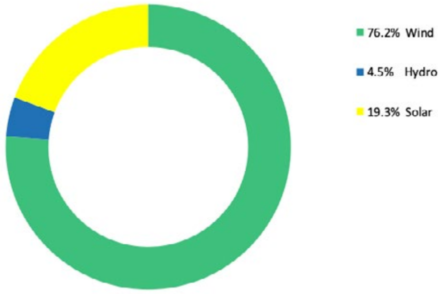

| | |
|---|---|
| Fossil-based energy | 62.7% |
| Renewable energy | 37.3% |
| $CO_2$ emissions rate | 347.1 g/kWh |
| Radioactive waste rate | 0.00005 g/kWh |

**Fuel mix energy supply business market | RA-verified**
%



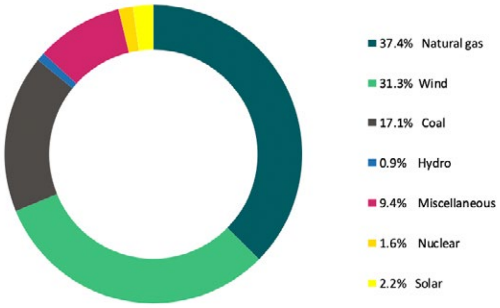

| | |
|---|---|
| Fossil-based energy | 60.9% |
| Renewable energy | 39.1% |
| CO2 emissions rate | 337.0 g/kWh |
| Radioactive waste rate | 0.00004 g/kWh |

**Fuel mix energy supply PowerPeers | RA-verified**
%




| | |
|---|---|
| Fossil-based energy | 0.0% |
| Renewable energy | 100.0% |
| CO2 emissions rate | 0.0 g/kWh |
| Radioactive waste rate | 0.00000 g/kWh |

**Fuel mix energy supply consumer market | RA-verified**
%




| | |
|---|---|
| Fossil-based energy | 65.6% |
| Renewable energy | 34.4% |
| CO2 emissions rate | 363.0 g/kWh |
| Radioactive waste rate | 0.00005 g/kWh |

## Fuel Mix supply Powerpeers

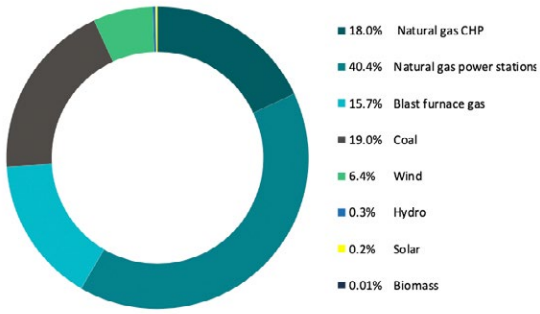
Powerpeers was launched in the summer of 2016 in the Netherlands, as a new energy supplier in the Dutch consumer market that offers a sharing platform for green energy. Consumers can choose their own energy mix from suppliers that offer their sustainably produced power on the platform. These suppliers can be for example households with solar panels or farmers with windmills. Supply and demand is matched on a 15-minute basis which gives customers a near real-time insight in the origin of the power they use at home. Powerpeers has its own supply license and acts independently. However it is legally part of Vattenfall NV and therefore the fuel mix is published in this annual report.

Powerpeers gives its customers daily insight in their personal fuel mix on their own online energy dashboard. The figure below illustrates the fuel mix of all powerpeers customers together and shows that the mix consists of 100% renewable energy, all produced in the Netherlands.

## Production fuel mix

$CO_2$ emissions decreased slightly from 496 to 494 grams per kWh. The share of coal-fired power plants is lower compared to 2017, mainly due to outages in 2018. The share of renewable energy decreased from 7.5% in 2017 to 6.9% in 2018, mainly due repowering of the wind farms Slufterdam and Wieringermeer and worse wind conditions in 2018 compared to 2017. As a result of the repowering projects Slufterdam and Wieringermeer the existing turbines are decommissioned during 2017 and 2018. The new turbines will become operational in 2019.

**Fuelmix energy production in the Netherlands | RA-verified**
%




| | |
|---|---|
| Fossil-based energy | 93.10% |
| Renewable energy | 6.90% |
| CO2 emission rate | 493.7 g/kWh |
| Radioactive waste rate | 0.00000 g/kWh |

1. At our power plants in Velsen, the residual gas released during the steel production of Tata Steel is used as a fuel to produce electricity. In this way this blast furnace gas is put to good use by Nuon. The gas contains a high percentage of $CO_2$. It has been agreed with the Office of Energy Regulation of the Dutch Competition Authority that Nuon is to adjust the $CO_2$ emissions in the production fuel mix to avoid double counting. The $CO_2$ emission factor of blast furnace gas is calculated in this mix on the basis of the use of natural gas.
2. The wind energy production means all electricity that Nuon, as producer and beneficial owner, feeds into the electricity grid via grid connection points.

# Financial Performance

## Income statement

The table below shows the results for 2018 compared to 2017.

| **Amounts in EUR million, 1 January - 31 December** | **2018** | **2017** |
|---|---|---|
| Net sales | 2,619 | 2,449 |
| Cost of purchases | -1,468 | -1,304 |
| **Gross margin** | **1,151** | **1,145** |
| | | |
| Other external expenses | -432 | -393 |
| Personnel expenses | -281 | -289 |
| Other operating incomes and expenses, net | 45 | 165 |
| Participations in the results of associated companies | -1 | 1 |
| **Operating profit before depreciation, amortisation and impairment losses (EBITDA)** | **482** | **629** |
| Depreciation, amortisation and impairments | -181 | -165 |
| **Operating profit (EBIT)** | **301** | **464** |

### Net sales

Net sales increased by 6.9 % to EUR 2,619 million in 2018. The electricity and gas prices increased compared to 2017, affecting both the net sales and the related purchase costs. The total number of electricity, gas and heat customers increased compared to 2017.

### Gross margin

In 2018, the gross margin increased slightly by 0.5 % to EUR 1,151 million.

### Personnel and Other external expenses

The total operating expenses increased by 4.5% to EUR 713 million in 2018, mainly due to growth in wind, solar and district heating. In addition we had higher cost for restructuring programs.

### FTE

The total number of FTE decreased by 2.4 % from 3,503 FTEs at the end of 2017 to 3,418 FTEs at the end of 2018, mainly due to the transfer of trading activities to Hamburg and restructuring programs.

### Other operating income and expenses, net

The decrease in other income from EUR 165 million in 2017 to EUR 45 million in 2018 is mainly related to the compensation Vattenfall NV received for the transfer of trading and market access activities to Vattenfall Energy Trading GmbH in Hamburg in 2017.

### EBITDA/EBIT

EBITDA (earnings before interest, taxes, depreciation and amortisation) decreased from EUR 629 million in 2017 to EUR 482 million in 2018, primarily due to the one-off compensation relating to the transfer of trading and market access activities from Vattenfall NV to Vattenfall Trading GmbH.

Depreciation, amortisation and impairments increased from EUR 165 million to EUR 181 million in 2018. In 2018 the impairments amounted to EUR 12 million, mainly relating to IT systems, while there were no impairments in 2017.

Overall, the one-off compensation for the trading and market access activities resulted in a lower EBIT (earnings before interest and taxes) in 2018 (EUR 301 million) compared to 2017 (EUR 464 million).

## Balance sheet

### Condensed balance sheet

| Amounts in EUR million | 31 December 2018 | 31 December 2017 |
|---|---|---|
| Non-current assets | 2,346 | 2,801 |
| Current assets | 2,941 | 3,682 |
| Cash and cash equivalents | 45 | 32 |
| **Total assets** | **5,332** | **6,515** |
| Equity | 2,996 | 3,049 |
| Non-current liabilities | 292 | 302 |
| Current liabilities | 2,044 | 3,164 |
| **Total equity and liabilities** | **5,332** | **6,515** |

#### Non-current assets

Non-current assets decreased by 16.2 % to EUR 2,346 million at the end of 2018. The transfer of the UK Wind entities to Vattenfall AB, due to simplification of legal structure, resulted in EUR 413 million lower assets. The investments (EUR 228 million) in Property, plant and equipment and Intangible assets, mainly related to investments in wind farm Slufterdam, wind farm Wieringermeer and the Heat grid. These investments were partially offset by depreciation, amortisation and impairment charges (EUR 181 million).

#### Current assets

Current assets decreased by 20.1 % to EUR 2,941 million at the end of 2018. The decrease was caused mainly by lower trade receivables from related parties.

#### Cash and cash equivalents

Cash and cash equivalents increased by EUR 13 million to EUR 45 million at the end of 2018. A positive cashflow from operations (EUR 358 million) and transfer of the UK Wind entities (EUR 193 million) was offset by investments in Intangible Assets and Property, plant and equipment (EUR 228 million) and dividends paid to the owners (EUR 286 million).

#### Non-current liabilities

Non-current liabilities decreased by 3.3 % to EUR 292 million at the end of 2018. The decrease was caused mainly by the transfer of the UK Wind entities to Vattenfall AB. In addition, provisions decreased as a result of the release of jubilee provision, due to a new collective labour agreement, and release of unemployment provision.

#### Current liabilities

Current liabilities decreased by 35.4 % to EUR 2,044 million. The decrease was caused mainly by lower payables to related parties. In addition the interest-bearing liabilities decreased, due to the transfer of the UK Wind entities to Vattenfall AB.

## Net cash position

### Reconciliation net cash position

| Amounts in EUR million | 31 December 2018 | 31 December 2017 |
|---|---|---|
| Cash and cash equivalents | 45 | 32 |
| In-house Vattenfall group cash pool | 874 | 755 |
| **Total free cash** | **919** | **787** |
| | | |
| Non-current interest-bearing liabilities | 27 | 25 |
| Current interest-bearing liabilities | 2 | 301 |
| **Gross debt position** | **29** | **326** |
| | | |
| **Net cash/(debt) position** | **890** | **461** |

The net cash position at the end of 2018 amounted to EUR 890 million, compared to a net cash position of EUR 461 million at the end of 2017. The increase in the net cash position is mainly resulting from a positive net cash flow from operations.

# Business risks and Risk management

## Risk management

Vattenfall NV is exposed to a number of risks that could have an adverse impact on operations and outcome. A better understanding of and control over these risks can potentially generate better results from the business activities. The Vattenfall NV Management Board is responsible for the company's risk management and control system. Vattenfall NV strives for transparency with regard to risk exposure and recognises all risks that may impact the company.

Vattenfall NV, as part of Vattenfall, applies the 'three lines of defence' model for the management and control of risks. The first line of defence consists of the business units, which own and manage risks. The risk organisation makes up the second line of defence and is responsible for monitoring and controlling risks. The internal and external audit functions are the third line of defence.

### Three lines of defence


The following paragraphs describe the main risks that Vattenfall NV faces, as well as performed risk management efforts.

## The Vattenfall Risk Management Framework

The objective of the Vattenfall Risk Management Framework is to provide reasonable assurance that the achievement of strategic and operational objectives is effectively monitored, that the financial reporting is reliable and that current laws and regulations are complied with.

The framework is part of Vattenfall NV's Governance and designed to ensure an acceptable risk exposure, based on a thorough and transparent analysis of Vattenfall NV's risks, thus facilitating the in-control situation and risk exposure based on an appropriate assessment of the risk-reward balance. The framework facilitates the monitoring of risks with a potential impact on the organisation and is based on a set of best practice policies, procedures and internal control mechanisms. Vattenfall NV has a limited risk appetite and all risks as reported and discussed are continuously reconciled with this risk appetite.

The Vattenfall Risk Management Framework focuses on ensuring that the most important risks are identified and that appropriate control measures are executed to manage these risks. The Framework is based on the COSO Enterprise Risk Management (ERM) Framework.

The ERM is executed as a continuous process for identifying, assessing, managing and following up on risks at all levels of the business at an early stage. An update of the risk situation is presented periodically for discussion at Management and Supervisory Board level.

Important components of the Vattenfall Risk Management Framework are:

- The Vattenfall Management System (VMS) which Vattenfall NV, as part of Vattenfall, implemented and which contains regulations, guidelines and procedures that are relevant for all Vattenfall employees and for the relationship between Vattenfall AB and its subsidiaries, Business Units, Staff Functions and other Vattenfall companies. VMS includes the Vattenfall Code of Conduct and the Whistle-blower Policy, which are publicly accessible at www.vattenfall.com. VMS also comprises of the IFRS accounting manual and the reporting manual;
- The Vattenfall Code of Conduct, which sets the behavioural rules for all employees. The Code of Conduct fosters an honourable business culture in which the rules applicable to employees are clear. Breaches of the Code of Conduct are not tolerated. If they come to the attention of Vattenfall, they will be investigated and may lead to sanctioning;
- The Risk Management organisation, headed by the Chief Risk Officer of Vattenfall, supports Vattenfall NV in applying Vattenfall's risk framework. The Risk

Management organisation monitors market risk on a daily basis, manages credit risk, oversees compliance with policies and risk limits, and guides the group-wide reporting of significant business risks. Together with other specialist risk stakeholders (for example health and safety, information security), the Risk Management organisation supports the Business Units in the identification, quantification, mitigation, monitoring and reporting of risk;
- The Integrity function, which advises and reports on issues with regard to competition, anti-bribery/corruption, conflict of interest, the whistleblowing function and inside information. In addition, the function advises management on measures to enhance compliance and monitoring compliance risks, and it stimulates awareness of the Code of Conduct. The Vattenfall NV Integrity, Fraud and Incidents report is submitted semi-annually to the Vattenfall NV Management Board. This report focuses on integrity developments, fraud and other incidents reported in the Netherlands and is a combined report of Internal Audit and the Integrity department;
- The Legal department, which submits the Claims & Litigation report to the Management Board of Vattenfall NV. The report contains a summary of current and potential legal proceedings and disputes;
- The Vattenfall Internal Financial Control Framework (IFC), which reports on the effectiveness of the controls which aims to assure reliable financial reporting and which is partly based on the results of the Vattenfall NV Business Control Framework, which also contains the key controls for the primary processes within the different business areas;
- The planning & control cycle, in which annual budgets are assigned for each organisational unit and the outcome of which is subsequently discussed between the Management Board and the Business Units;
- The periodic reporting on Business Units' financial and operational performance, partly based on the system of Key Performance Indicators (KPIs);
- The risk reports, highlighting the risks identified as having a potentially significant impact on the business. These reports are challenged by Risk Management and further reviewed in semi-annually sessions with members of the Management Board. These Business Unit risk reports are used as the basis for Risk Managements' formulation of the semi-annually Enterprise Risk Report, which summarises the most significant risks facing the organisation. This report is discussed with the Supervisory Board;
- The Vattenfall NV governance reporting cycle, in which all aspects of governance, such as risk, compliance, claims & litigation, integrity, fraud and incidents, internal control, data security and tax are reported based on a COSO self-assessment of risk management and internal control. The Management Board discusses these statements annually with responsible management;
- The responsible management's confirmation at corporate and unit level of the reliability of the financial reporting through signed Letters of Representation;
- The execution of audits by the Internal Audit department in conformity with the annual plan, which is approved by the Management Board. The outcome of their audits are discussed with management and summarized for the Supervisory Board;
- The follow-up of findings from internal and external audits by the Business Units, which are periodically reported on to the Management Board.

All risks are where possible quantified both with regard to (gross) exposure as well as with regard to probability. The Management Board periodically discusses all aspects of the framework, including all reported individual and aggregated quantified risks. This includes conclusions with regard to either the acceptance of the ultimate risks, or the instigation of actions to reduce risks, as well as with regard to the reconciliation with the risk appetite.

## Main risks and mitigation

This section describes the most important risks within Vattenfall NV.

- Market Price Risk Assets. The revenues (Gross Margin) from Vattenfall NV's generation assets are highly dependent on the pricing developments on the energy markets.
  Mitigation(s): Risk is actively managed and monitored via the Hedge Strategy Process on Vattenfall level.
- Decrease of sales volume. Developments in energy efficiency and decentralised generation could lead to lower consumption and demand for electricity and gas resulting in lower margins on commodities. Quantified risk is medium.
  Mitigation(s): Decrease operational costs and development of volume independent solutions (e.g. solar lease, energy roof, storage).
- $CO_2$ low energy generation. Introduction of a $CO_2$ floor price and replacement of gas used for heating by district heating systems based on renewable sources might affect presently invested capital and required replacement investments.
  Mitigation(s): Continuous monitoring of and acting on technical and regulatory developments.
- Increased competition. Missing profit due to increased competition both on current customer base and innovation. Quantified risk is medium.
  Mitigation(s): Continuously monitor the market for competitive products & new developments; prioritise development areas (short term versus long term); develop non-traditional business models and actively work together with start-ups and other market entrants;

attract right capability and create multi-disciplinary teams and foster customer co-creation.
- Temperature dependence of gross margin. Temperature is an important driver for gas and heat volumes. In warm winters the volume offtake will be lower with a negative impact on gross margin. Quantified risk is low. Mitigation(s): Temperature as well as impact on volume offtake is monitored. Explore product innovation to make Sales less temperature dependent.

Note 28 to the financial statements provides further qualitative and quantitative information on financial risk management.

### Responsibility

Vattenfall NV's Management Board is responsible to ensure that the design and operation of Vattenfall's internal risk management and control system is effective. During the year, the design and operation of this system was monitored and evaluated, amongst other based on the business control information, the Internal Audit reports and the management letter from the external auditor.

The Vattenfall NV Enterprise Risk Management Framework does not provide absolute assurance as to the achievement of the corporate objectives, nor does it guarantee that material errors, losses, fraud or violations of laws and regulations will not occur in the operational processes and/or the financial reporting.

With due regard to the above, the Management Board is of the opinion that the internal risk management and control systems provide a reasonable assurance that the financial reporting does not contain any errors of material importance and that the risk management and control systems worked properly with regard to the financial reporting risks in the year under review.

The above was also discussed with the Supervisory Board in the presence of the internal and external auditors.

## Outlook and Challenges

### The market is moving towards a fossil-free future

Despite sharp swings in the markets for fuel and $CO_2$ in 2018, structurally there is no doubt about the future direction. The Paris Agreement and the EU's climate goals are driving the shift towards more fossil-free power generation and lower carbon emissions. The Dutch climate agreement, which should lead to nation-wide efforts to reduce greenhouse gas emissions in 2030 by at least 49% (compared to 1990), and the future ban on coal-fired power generation in the Netherlands, are further examples of initiatives that have been taken. Parallel to this, plans are being drawn for new renewable electricity generation with significant capacity entirely without government support. Vattenfall's winning bid for the Hollandse Kust Zuid I and II wind farm (~700 MW) in the Netherlands is a prime example. The project has excellent prospects and is very attractive for Vattenfall at the same time that it supports the energy shift in the Netherlands.

Vattenfall NV is committed to reduce $CO_2$ emissions further and become fossil free within one generation, amongst others:
- We continue making it possible for customers to participate in the energy transition and lower their fossil emissions via decentralised solutions like solar power, heat pumps and e-mobility. In 2019, we continue to achieve solar solutions with customers (e.g. by leasing solar panels through Feenstra) and create a charging network for e-vehicles and plug-in hybrids. In addition we continue connecting new customers to our district heating networks;
- We continue in investing in wind farms, solar farms and battery solutions. E.g. after winning the tender for constructing the wind farms Hollandse Kust Zuid I and II in March 2018, Vattenfall NV will sign in on the tender for Hollandse Kust Zuid III and IV. In addition, Vattenfall NV continues in investing in the onshore wind farms Wieringmeer, Moerdijk and Haringvliet;
- We increase the sourcing of heat from industrial facilities owned by third parties as well as heat from biomass;
- We continue digitalising the business and gathering customer consumption data to optimise heat production and reduce fuel consumption;
- We develop and test different technologies together with our suppliers to support the phase-out of gas as a fuel for our customers, such as power-to-heat which includes electric boilers combined with hot water storage, synthetic gas produced by electricity, and heat pumps;
- We are committed to reduce $CO_2$ emissions from our power plants. One example of these efforts is the agreement signed this year to run a pilot project to replace natural gas with hydrogen in our Magnum plant in Eemshaven;
- We acquired Delta Energie offering 100 percent wind and tidal water energy generated in Zeeland.

We take on a role to reduce greenhouse gases from supplier activities, which primarily stem from coal-mining, gas sourcing and component and maintenance suppliers. With the support of emissions data from Life Cycle Assessments and ongoing dialogues with suppliers, we are making a concerted effort to reduce these emissions.

The governmental decision to stop using coal for electricity production by the end of 2019 means that the Hemweg power plant will have to stop operating without the previously announced transition period of 5 years. Negotiations for compensation has been almost finalised. The proposal still needs to be approved by the Dutch State. After the announcement the preparations to close the asset by the end of 2019 has been started. We are committed to find suitable jobs for our affected colleagues within or outside of Vattenfall.

Despite the more competitive market situation, Vattenfall NV's customer numbers (consumers) showed moderate and promising growth in 2018 and there was a growth in the business customers segment as well. In the coming years, we aim to further grow our customer base, both in the consumer and business markets. A good example is the acquisition of approximately 170.000 customers of Delta Energie. We will focus on long-term, sustainable relationships with our customers based on mutual benefits. This means we will help our customers increase their energy efficiency, thus reducing both their environmental footprint and their energy costs. A good example is the acquisition of the Dutch start up Senfal, which offers innovative software services for industry demand side flexibility and renewable generation optimisation.

Vattenfall has the goal of making fossil-free living possible within a generation. In order to take a broad approach across all the different countries where Vattenfall operates, the decision has been made to unite Nuon and Vattenfall under one name. With one name and one message, we are more effective both strategically and financially. This change makes us ready for the future and ready for the developments in the energy market. And it shows Vattenfall commitment to the Netherlands. We will take the time to do this right, for us and for our customers. We want to make people familiar with Vattenfall and explain why this is a good and important change, instead of merely erase a familiar name, before we make the full transition to Vattenfall.

We are confident that we are able to implement the necessary changes needed to tackle the current challenges while capturing new opportunities. And we remain convinced that Vattenfall NV will contribute to the realisation of Vattenfall's strategic ambitions without losing sight of the interests of our Dutch stakeholders.

### A final word

Despite a continuing challenging market environment in 2018 we see stable financial performance compared to last year corrected for the result from transfer of trading activities to Vattenfall Energy Trading GmbH. Our focus on cost savings and continuous improvement has positively contributed to our financial results. We see a positive trend in customer loyalty scores (NPS) coupled with an increase of our customer base in a highly competitive environment. Without the commitment and hard work of our staff, we could not have achieved all that we have nor would we be in a position to overcome the challenges we face. We express our gratitude to all our employees for their great work during an eventful and turbulent year.

## Composition of the Management and Supervisory Board

Currently there are no female members on the Management Board, which is mainly due to the small size of the board. The distribution of board seats between men and women in the Supervisory Board is in line with the Act on Management and Supervision.

Amsterdam, 28 May 2019

The Management Board
Peter Smink
Martijn Hagens

# Financial statements

# Consolidated accounts

## Consolidated income statement

| Amounts in EUR million, 1 January-31 December | Note | 2018 | 2017 |
|---|---|---|---|
| Net sales | 5 | 2,619 | 2,449 |
| Cost of purchases | | -1,468 | -1,304 |
| Other external expenses | 7 | -432 | -393 |
| Personnel expenses | 31 | -281 | -289 |
| Other operating income and expenses, net | | 45 | 165[1] |
| Participations in the results of associated companies | 15 | -1 | 1 |
| **Operating profit before depreciation, amortisation and impairment losses (EBITDA)** | | **482** | **629** |
| Depreciation, amortisation and impairments | 12, 13 | -181 | -165[1] |
| **Operating profit (EBIT)** | | **301** | **464** |
| | | | |
| Financial income | 8 | 6 | 2 |
| Financial expenses | 9 | -11 | -15 |
| **Profit before income taxes** | | **296** | **451** |
| | | | |
| Income tax expense | 10 | -85 | -106[1] |
| **Profit for the year** | | **211** | **345** |
| Attributable to owner of the Parent Company | | 211 | 345 |
| Attributable to non-controlling interests | | — | — |

1) The amount has been restated as a result of the implementation of new IFRS's (IFRS 9 and IFRS 15) which became effective as of 1 January 2018. The implementation of these new IFRS's was applied fully retrospectively. Reference is made to note 2 which includes a summary of the impact of this on the profit and loss accounts, balance sheet and equity.

## Consolidated statement of comprehensive income

| Amounts in EUR million, 1 January-31 December | 2018 | 2017 |
| --- | --- | --- |
| **Profit for the year** | **211** | **345[1]** |
| | | |
| **Other comprehensive income** | | |
| **Items that will be reclassified to profit or loss when specific conditions are met** | | |
| Cash flow hedges - changes in fair value | 3 | -81 |
| Cash flow hedges - dissolved against income statement | – | 4 |
| Translation differences | 20 | -3 |
| Income taxes related to items that will be reclassified | -1 | 19 |
| **Total Items that will be reclassified to profit or loss when specific conditions are met** | **22** | **-61** |
| | | |
| **Total other comprehensive income, net after income taxes** | **22** | **-61** |
| | | |
| **Total comprehensive income for the year** | **233** | **284** |
| Attributable to owner of the Parent Company | 233 | 284 |
| Attributable to non-controlling interests | – | – |

1) The amount has been restated as a result of the implementation of new IFRS's (IFRS 9 and IFRS 15) which became effective as of 1 January 2018. The implementation of these new IFRS's was applied fully retrospectively. Reference is made to note 2 which includes a summary of the impact of this on the profit and loss accounts, balance sheet and equity.

## Consolidated balance sheet

| Amounts in EUR million | Note | 31 December 2018 | 31 December 2017[1] |
|---|---|---|---|
| **Assets** | | | |
| **Non-current assets** | | | |
| Intangible assets: non-current | 6, 12 | 170 | 167[1] |
| Property, plant and equipment | 6, 13 | 1,888 | 2,252 |
| Participations in associated companies and joint arrangements | 15 | 31 | 33 |
| Other shares and participations | | 2 | 2 |
| Derivative assets | 27 | 98 | 118 |
| Deferred tax assets | 10 | 116 | 179 |
| Other non-current receivables | | 41 | 46 |
| **Total non-current assets** | | **2,346** | **2,797** |
| **Current assets** | | | |
| Inventories | 16 | 130 | 85 |
| Trade receivables and other receivables | 17 | 2,318 | 3,095 |
| Advance payments paid | 18 | 8 | 15 |
| Derivative assets | 27 | 353 | 346 |
| Prepaid expenses and accrued income | 19 | 107 | 118 |
| Current tax assets | 10 | 25 | 23 |
| Cash and cash equivalents | 20 | 45 | 32 |
| **Total current assets** | | **2,986** | **3,714** |
| **Total assets** | | **5,332** | **6,511** |
| **Equity and liabilities** | | | |
| **Equity attributable to owners of the Parent Company** | | | |
| Share capital and premium | | 3,481 | 3,481 |
| Reserve for cash flow hedges | | – | -2 |
| Translation reserve | | – | -20 |
| Retained earnings incl. profit for the year | | -485 | -410[1] |
| **Total equity attributable to owners of the Parent Company** | 29 | **2,996** | **3,049** |
| **Equity attributable to non-controlling interests** | | **–** | **–** |
| **Total equity** | | **2,996** | **3,049** |
| **Non-current liabilities** | | | |
| Interest-bearing liabilities | 21 | 27 | 25 |
| Provisions | 23 | 75 | 84 |
| Derivative liabilities | 27 | 6 | 6 |
| Deferred tax liabilities | 10 | 1 | 11[1] |
| Contract liabilities | 5 | 183 | 172[1] |
| **Total non-current liabilities** | | **292** | **298** |
| **Current liabilities** | | | |
| Trade payables and other liabilities | 24 | 1,626 | 2,416 |
| Contract liabilities | 5 | 42 | 36[1] |
| Advance payments received | 25 | 4 | 30 |
| Derivative liabilities | 27 | 39 | 112 |
| Accrued expenses and deferred income | 26 | 305 | 223[1] |
| Current tax liabilities | 10 | 6 | 18 |
| Interest-bearing liabilities | 21 | 2 | 301 |
| Provisions | 23 | 20 | 28 |
| **Total current liabilities** | | **2,044** | **3,164** |
| **Total equity and liabilities** | | **5,332** | **6,511** |

1) The amount has been restated as a result of the implementation of new IFRS's (IFRS 9 and IFRS 15) which became effective as of 1 January 2018. The implementation of these new IFRS's was applied fully retrospectively. Reference is made to note 2 which includes a summary of the impact of this on the profit and loss accounts, balance sheet and equity.

## Consolidated statement of cash flows

| Amounts in EUR million, 1 January-31 December | 2018 | 2017 |
|---|---|---|
| **Operating activities** | | |
| **Operating profit before depreciation, amortisation and impairment losses** | **482** | **629**[1] |
| Tax paid | -34 | 4 |
| Capital gains/losses, net | 8 | 8 |
| Interest received | 1 | 1 |
| Interest paid | -2 | -3 |
| Other, incl. non-cash items | -106 | -321 |
| **Funds from operations (FFO)** | **349** | **318** |
| Changes in inventories | -45 | 148 |
| Changes in operating receivables | 760 | -1,163 |
| Changes in operating liabilities | -687 | 1,190[1] |
| Other changes | -19 | -141 |
| **Cash flow from changes in operating assets and operating liabilities** | **9** | **34** |
| **Cash flow from operating activities** | **358** | **352** |
| **Investing activities** | | |
| Acquisitions in Group companies | – | -6 |
| Investments in associated companies and other shares and participations | – | 3 |
| Other investments in non-current assets | -228 | -313[1] |
| **Total investments** | **-228** | **-316** |
| Divestments | 193 | 159 |
| Loans granted | – | -2 |
| Loans repaid | – | 1 |
| **Cash flow from investing activities** | **-35** | **-158** |
| **Cash flow before financing activities** | **323** | **194** |
| **Financing activities** | | |
| Interest-bearing debt raised | 3 | – |
| Interest-bearing debt repaid | -27 | -297 |
| Dividends paid to owners | -286 | – |
| **Cash flow from financing activities** | **-310** | **-297** |
| **Cash flow for the year** | **13** | **-103** |
| **Cash and cash equivalents** | | |
| Cash and cash equivalents at start of year | 32 | 135 |
| Cash flow for the year | 13 | -103 |
| **Cash and cash equivalents at end of year** | **45** | **32** |

1) The amount has been restated as a result of the implementation of new IFRS's (IFRS 9 and IFRS 15) which became effective as of 1 January 2018. The implementation of these new IFRS's was applied fully retrospectively. Reference is made to note 2 which includes a summary of the impact of this on the profit and loss accounts, balance sheet and equity.

## Consolidated statement of changes in equity

| Amounts in EUR million | Attributable to owner of the Parent Company: Share capital and premium | Reserve for hedges | Translation reserve | Retained earnings | Total | Attributable to non-controlling interests | Total equity |
|---|---|---|---|---|---|---|---|
| **Balance brought forward 2018** | **3,481** | **-2** | **-20** | **-410** | **3,049** | **–** | **3,049** |
| **Profit for the year** | **–** | **–** | **–** | **211** | **211** | **–** | **211** |
| Cash flow hedges - changes in fair value | – | 3 | – | – | **3** | – | **3** |
| Cash flow hedges - dissolved against income statement | – | – | – | – | **–** | – | **–** |
| Translation differences | – | – | 20 | – | **20** | – | **20** |
| Income taxes related to other comprehensive income | – | -1 | – | – | **-1** | – | **-1** |
| **Total other comprehensive income for the year** | **–** | **2** | **20** | **–** | **22** | **–** | **22** |
| **Total comprehensive income for the year** | **–** | **2** | **20** | **211** | **233** | **–** | **233** |
| Dividends paid to owners | – | – | – | -286 | **-286[2]** | **–** | **-286** |
| **Total transactions with equity holders** | **–** | **–** | **–** | **-286** | **-286** | **–** | **-286** |
| **Balance carried forward 2018** | **3,481** | **–** | **–** | **-485** | **2,996** | **–** | **2,996** |

| Amounts in EUR million | Attributable to owner of the Parent Company: Share capital and premium | Reserve for hedges | Translation reserve | Retained earnings | Total | Attributable to non-controlling interests | Total equity |
|---|---|---|---|---|---|---|---|
| **Balance brought forward 2017** | **3,481** | **56** | **-17** | **-762** | **2,758** | **–** | **2,758** |
| Transitional effect of adoption of new accounting rules (IFRS9, 15) | – | – | – | 7 | **7[1]** | – | **7** |
| **Profit for the year** | – | – | – | 345 | **345[1]** | – | **345** |
| Cash flow hedges - changes in fair value | – | -81 | – | – | **-81** | – | **-81** |
| Cash flow hedges - dissolved against income statement | – | 4 | – | – | **4** | – | **4** |
| Translation differences | – | – | -3 | – | **-3** | – | **-3** |
| Income taxes related to other comprehensive income | – | 19 | – | – | **19** | – | **19** |
| **Total other comprehensive income for the year** | **–** | **-58** | **-3** | **–** | **-61** | **–** | **-61** |
| **Total comprehensive income for the year** | **–** | **-58** | **-3** | **345** | **284** | **–** | **284** |
| Dividends paid to owners | – | – | – | – | – | – | – |
| **Total transactions with equity holders** | **–** | **–** | **–** | **–** | **–** | **–** | **–** |
| **Balance carried forward 2017** | **3,481** | **-2** | **-20** | **-410** | **3,049** | **–** | **3,049** |

1) The amount has been restated as a result of the implementation of new IFRS's (IFRS 9 and IFRS 15) which became effective as of 1 January 2018. The implementation of these new IFRS's was applied fully retrospectively. Reference is made to the note 2 which includes a summary of the impact of this on the profit and loss accounts, balance sheet and equity.
2) During the year 2018, dividends amounting to EUR 286 million were distributed to shareholders. The dividend per share amounted to EUR 2.09.

See also Note 29 to the consolidated accounts, Specifications of equity.

# Notes to the consolidated accounts

## Note 1 Company information

Vattenfall N.V. is a public limited liability company, registered in Amsterdam, the Netherlands. The most significant activities of Vattenfall N.V. and its subsidiaries comprise of the production and supply of electricity, gas, heat and cooling to customers in the Netherlands, as well as a broad portfolio of energy-saving products and services.

'We', 'Vattenfall NV', 'the Company' or similar expressions are used in these consolidated accounts as a synonym for Vattenfall N.V. and its subsidiaries. 'Vattenfall AB', 'the Parent' or 'the parent company' are used in these consolidated accounts as a synonym for Vattenfall AB and its subsidiaries. Vattenfall NV originated in 2009 from the unbundling of former parent company N.V. Nuon into a production and supply company, N.V. Nuon Energy, and a grid company, Alliander N.V. As a consequence of a rebranding project, the statutory name of the Company changed from N.V. Nuon Energy into Vattenfall NV. The new name became effective on 5 March 2019.

Vattenfall AB, owned by the Swedish government, is the sole shareholder of Vattenfall NV. The financial data of Vattenfall NV is included in the consolidated accounts of Vattenfall AB.

These consolidated accounts for the financial year 2018 are authorised for publication by the Management Board and Supervisory Board on 28 May 2019. Subsequently, these consolidated accounts are scheduled to be adopted by the general meeting of shareholders on 28 May 2019.

As the company income statement for 2018 of Vattenfall NV is included in the consolidated accounts, a condensed income statement has been disclosed in the company accounts in accordance with Section 402, Book 2, of the Dutch Civil Code.

## Note 2 Important changes in the financial statements compared with the preceding year

### Restatement of financial statements for 2017

As shown in Note 3 to the consolidated accounts, Accounting policies, new accounting rules apply as from 2018 in accordance with IFRS 9 – "Financial Instruments" and IFRS 15 – "Revenue from Contracts with Customers". As a result of the new accounting rules, the consolidated financial statements for the comparison year 2017 have been restated. The effect is an increased balance sheet total as per 1 January 2017 by EUR 20 million and as per 31 December 2017 by EUR 15 million and comprises of an increase of intangible fixed assets (EUR 15 million), deferred taxes (EUR 4 million) and equity (EUR 11 million). The effect on the net profit of 2017 resulted in an increase by EUR 4 million.

### Presentation of Consolidated income statement and Consolidated balance sheet

Starting with the first quarter of 2018 Vattenfall AB has changed the presentation of the income statement from a function of expense method to a nature of expense method. The external presentation of the income statement has thereby been aligned with the internal governance of Vattenfall's business. In addition, relevant items such as depreciation and amortisation and personnel-related expenses are now directly visible in the income statement. Since operating profit before depreciation, amortisation and impairment losses (EBITDA) is presented as a separate line item in the income statement, EBITDA is now used as the starting point for the consolidated statement of cash flows instead of profit before income taxes. In accordance with IAS 1.41b, and In the light of the current harmonisation and rebranding process within Vattenfall AB, the consolidated accounts of Vattenfall NV are presented in conformity with those of Vattenfall AB. This change in presenting the Company's consolidated income statement and balance sheet resulted in some reclassifications in certain balance sheet or profit and loss accounts as compared to how the Company presented the annual accounts in previous periods. The comparative figures have been adjusted accordingly.

## Note 3 Accounting policies

### Conformity with standards and regulations

The consolidated accounts have been prepared in accordance with the International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB) as well as the interpretations issued by the IFRS Interpretations Committee (IFRIC) as endorsed by the European Commission for application within the EU.

### New IFRSs and interpretations effective as from 2018

Presented below are the new accounting standards that have a material impact on Vattenfall NV's financial statements.

#### IFRS 9 "Financial Instruments"

IFRS 9 – "Financial Instruments", effective from 1 January 2018, replaces IAS 39 – "Financial Instruments: Recognition and Measurement". IFRS 9 includes new principles for classification and measurement of financial instruments, changed principles for impairment of credit losses, and new rules for hedge accounting. Vattenfall NV has chosen to apply IFRS fully retrospectively, and restated the comparative figures for 2017. The effect on equity of changed accounting policies as per 1 January 2017 was only EUR 31,000.

The principles for classification and measurement of financial instruments, the recognition of impairments of financial assets and hedge accounting, are described in Note 27 to the consolidated accounts, Financial instruments by measurement category, offsetting of financial assets and liabilities, and financial instruments' effects on income.

**IFRS 15 – "Revenue from Contracts with Customers"**

IFRS 15 – "Revenue from Contracts with Customers", effective from 1 January 2018, is a new revenue recognition standard that provides a single, principles-based model for all revenue recognition, regardless of the type of transaction or sector. IFRS 15 replaces all previously issued standards and interpretations that address revenue recognition, including IAS 11, IAS 18, and the related IFRICs 13, 15 and 18. The core principle in IFRS 15 is that revenue should be recognised in a way that reflects the transfer of control of goods or services to the customers in an amount that reflects the consideration which we expect to receive. IFRS 15 introduces a five-step model to be applied when recognising revenue in accordance with the core principle. The standard also contains special rules concerning the recognition of costs related to the obtaining of contracts with customers.

Changes compared with the previous revenue recognition standard IAS 18 (including IAS 11), are in the following areas:

- Cost to obtain contracts: Vattenfall NV sells its products through different sales channels and incurs different types of costs in connection with this. According to IFRS 15, incremental costs to obtain contracts are to be capitalised and amortised over the length of the contracts. Prior to IFRS 15 part of these costs have been previously expensed as incurred. For Business to Consumers (BtC) cost to obtain contracts are capitalized for contracts with a duration of more than one year. For Business to Business (BtB) costs to obtain contracts are capitalized regardless of the duration of the contract.

For the effect of the implementation of IFRS 15 on the restated financial statements for the year ended 31 December 2017 reference is made to note 2 'Important changes in the financial statements compared to the preceding year'.

## New IFRSs and interpretations effective as from 2019 and later

A number of accounting standards and interpretations have been published, but have not become effective. Below are the changes in standards that will affect Vattenfall NV's financial statements. Other revised accounting standards and interpretations are not considered to have a material impact on Vattenfall NV's financial statements.

**IFRS 16 – "Leases"**

IFRS 16 – "Leases" replaces IAS 17 – "Leases" along with the accompanying interpretations. IFRS 16 becomes effective as from 2019. Vattenfall transitions to the new leasing standard by applying the modified retrospective approach, and therefore the 2018 financial statements will not be restated. Starting 1 January 2019, a right-of-use asset along with a lease liability will be recognised on the balance sheet for all lease contracts except for leases for which the underlying asset is of low value and short-term leases. Short-term leases are leasing contracts with a duration of 12 months or less.

As per 1 January 2019, a lease liability will be recognised for leases that were previously classified as operating leases through application of IAS 17. The lease liability is measured as the present value of the remaining lease payments discounted by Vattenfall NV's currency and term specific incremental borrowing rate as per 1 January 2019. The right-of-use asset is recognised initially at the same value as the lease liability. In the income statement, the lease expenses will be replaced by depreciation of the right-of-use asset and interest expense on the lease liability. The implementation of IFRS 16 also entails a positive effect on operating cash flows and a negative effect on cash flow from financing activities.

In its capacity as a lessee, Vattenfall NV mainly has lease contracts relating to real estate leases (29.9%), land right leases (20.9%) and car leases (10.8%).

***Definition of a lease***

Previously, Vattenfall determined at inception, whether a contract contains a lease under IAS 17 and IFRIC 4. Starting 1 January 2019, the group applies the definition under IFRS 16 to determine whether or not an arrangement of a contract contains a lease.

***As a lessee***

Under IAS 17, Vattenfall NV classified leasing contracts as either operating lease or finance lease. This distinction has become obsolete under IFRS 16. A right-of-use asset along with a corresponding liability will be created for all lease contracts except for leases for which the underlying asset is of low value and short-term leases.

*Impact on Vattenfall NV's financial statements*

The effect on Vattenfall NV's balance sheet total as of 1 January 2019 is approximately EUR 98 million. Based upon the value of right-of-use assets as of 1 January 2019, EBITDA is expected to increase in 2019 by approximately EUR 25 million.

| | |
|---|---|
| Operating lease commitment as per 31 December 2018 (See note 11) | 118 |
| Recognition exemption for short-term leases and leases of low-value assets | -13 |
| Effect of discounting operating lease commitment | -7 |
| **Lease liabilities as a result of IFRS 16 implementation** | **98** |
| Finance lease liabilities recognised as per 31 December 2018 | – |
| **Lease liabilities as per 1 January 2019** | **98** |

## Basis of measurement

Assets and liabilities are reported at cost or amortised cost, with the exception of certain financial assets and liabilities and inventories held for trading, which are measured at fair value. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Vattenfall uses valuation methods that reflect the fair value of an asset or liability appropriately. Financial assets and liabilities that are measured at fair value are described below according to the fair value hierarchy (levels), which in IFRS 13 is defined as follows:

- Level 1: Quoted prices (unadjusted) in active markets for identical assets or liabilities
- Level 2: Inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly (that is, as prices) or indirectly (that is, derived from prices).
- Level 3: Inputs for the asset or liability that is not based on observable market data (that is, unobservable inputs)

Classification into a level is determined by the lowest level input that is significant for the measurement of the fair value at the end of a reporting period. Vattenfall NV assesses whether reclassifications between the levels are necessary. Observable input data are used whenever possible and relevant. For assets and liabilities included in Level 3, fair value is modelled either on the basis of market prices with adjustments that consider specific terms of a contract, or on the basis of unobservable inputs such as future cash flows. The assumptions for the estimated cash flows are monitored on a regular basis and adjusted if necessary.

## Functional and presentation currencies

The functional currency is the currency of the primary economic environment in which each Vattenfall NV's entity operates. The Company's functional currency is Euro (EUR), which is also the presentation currency of both Vattenfall NV's consolidated and company financial statements. This means that the financial statements are presented in Euro. Unless otherwise stated, all figures are rounded off to the nearest million Euro (EUR million).

## Principles of consolidation

The consolidated financial statements cover Vattenfall NV, subsidiaries, associated companies and joint ventures.

### Subsidiaries

Subsidiaries are all entities over which Vattenfall NV has control. Control is considered to exist when the following three criteria are met: (1) the investor is exposed to or is entitled to a variable return from the investment, (2) the investor has the opportunity to influence the return through its opportunity to govern the company, and (3) there is a link between the return that is received and the opportunity to govern the company. By influence is meant the rights that allow the investor to govern the relevant business, that is, the business which significantly influences the company's return. Business combinations are accounted for using the purchase method. The subsidiary's financial statements, which are prepared in accordance with the Company's accounting policies, are included in the consolidated accounts from the point of acquisition to the date when control ceases.

### Associated companies and joint ventures

Associated companies are companies in which Vattenfall NV has a significant – but not controlling – influence or joint control with other owners over their operational and financial management, usually through shareholdings corresponding to between 20% and 50% of the votes. From the point at which the significant influence is acquired, participations in associated companies are reported in the consolidated accounts in accordance with the equity method.

### Transactions that are eliminated upon consolidation

Intra-group receivables and liabilities, income and expenses, as well as gains or losses arising from intra-group transactions between Vattenfall NV companies, are eliminated in their entirety when preparing the consolidated accounts. Gains arising from transactions with associated companies and joint ventures are eliminated to an extent that corresponds to Vattenfall NV's holding in the company. Losses are eliminated in the same manner as gains, but are treated as an indicator of impairment.

### Foreign currencies

#### Transactions in foreign currencies

Transactions in foreign currencies are translated to the functional currency at the exchange rate on the day of the transaction. On the balance sheet date, monetary assets and liabilities in foreign currencies are translated to the functional currency at the exchange rate applicable on that day. Exchange rate differences arising from translation of currencies are reported in the income statement. Operationally derived exchange gains and losses are shown under Other operating income and Other operating expenses, respectively. Financially derived exchange gains and losses are shown as Financial income and Financial expenses, respectively.

#### Financial reporting of foreign activities

Assets and liabilities of foreign activities, including goodwill and other consolidated surplus and deficit values, are translated to EUR at the exchange rate in effect on the balance sheet date. Income and expenses of foreign activities are translated to EUR using an average exchange rate. Translation differences arising from foreign currency translation of foreign activities are reported in Other comprehensive income.

### Important estimations and assessments in the preparation of the financial statements

Preparation of the financial statements in accordance with IFRS requires the Company's executive management and board of directors to make estimations and assessments as well as to make assumptions that affect application of the accounting policies and the reported amounts of assets, liabilities, income and expenses. These estimations and assessments are based on historic experience and other factors that seem reasonable under current conditions. The results of these estimations and assessments are then used to establish the reported values of assets and liabilities that are not otherwise clearly documented from other sources. The final outcome may deviate from the results of these estimations and assessments. The estimations and assessments are revised on a regular basis. The effects of changes in estimations are reported in the period in which the changes were made if the changes affected this period only or in the period the changes were made and future periods if the changes affect both the current period and future periods.

Important estimations and assessments are described further in the following notes to the consolidated accounts:

- Note 10 Income taxes
- Note 12 Intangible assets: non-current
- Note 13 Property, plant and equipment
- Note 23 Provisions

## Note 4 Acquired and divested operations

### Acquired operations

#### Acquisition 2018

In September 2018 Vattenfall NV acquired the shares of Zonnepark Gasselternijveen B.V. and Zonnepark Coevorden B.V.

#### Acquisition 2017

In September 2017 Vattenfall NV acquired the the shares of Windcollectief Wieringermeer B.V. The identifiable assets consist of concessions, patents, licences, trademarks and similar assets.

### Divested operations

#### Divestments in 2018

In August 2018 Vattenfall NV sold the UK Wind entities to Vattenfall AB. The carrying amount of these divested entities amounted to EUR 139 million. Taking into consideration the release of the translation reserve the capital gain of this sales transaction amounted to EUR 33 million. The consideration received for the transfer of the shares in UK Wind amounted to EUR 193 million.

## Note 5 Net sales

### Accounting policy

Net sales include sales proceeds from sales of electricity, heat and gas, energy trading and other revenues. Vattenfall NV offers customers discounts and bonuses on sale of both electricity, gas and heat through various campaigns. The Company recognises discounts and bonuses when the performance obligation to the customer is satisfied, which in general is when the electricity, gas or heat has been delivered to the customer.

Various sales channels are used to sell Vattenfall NV's products which gives rise to different types of costs associated with sales activities. These costs to obtain a contract related to revenues from contracts with customers are shown under Note 12. Capitalization of costs to obtain is either based on a portfolio approach (BtC) or a contract by contract approach (BtB). BtC applied practical expedients by which all contracts with a duration of more than 1 year are deemed one portfolio and costs to obtain a contract associated to 1 year contracts are expensed when incurred. The amortisation schedule depends on the contract duration by taking into consideration the probability that customers terminate their contract prior to the end of the contractually agreed period.

#### Sales and distribution of electricity, heat and gas

Sales of electricity, heat and gas and related distribution are recognised as revenue at the time of delivery, excluding value-added tax and excise taxes. Depending on the system for metering of consumption, Vattenfall recognises revenues either based on expected consumption, with a reconciliation when the readout takes place, or based on actual consumption and adjusted for back-delivery.

### Connection fees

Heat is responsible for physical connections of the Heating networks to houses and buildings. The fee for the physical connection is paid by the customer when the connection is established. Revenue from connection fees is recognised over time since Vattenfall NV handles maintenance and repairs of the assets used in the physical connection, which is satisfied over time. The basis for revenue recognition of connection fees is the useful life of the underlying assets. Vattenfall NV recognises revenues from contracts with customers and other revenues through profit or loss.

| | 2018 | 2017 |
|---|---|---|
| Sales of electricity | 971 | 895 |
| Sales of gas | 1,184 | 1,125 |
| Sale of heat and steam | 165 | 151 |
| Service and consulting | 284 | 259 |
| Other Revenues | 15 | 19 |
| **Total Revenues** | **2,619** | **2,449** |

Revenue from contracts with customers is recognised when the performance obligation is satisfied, but the payment recognised may not match the revenue for the period. This results in the recognition of contract assets and contract liabilities.

| Contract balances | 2018 | 2017 |
|---|---|---|
| Contract liabilities | 225 | 208 |
| Released as revenue during the year | 8 | 27 |

Contract liabilities relate to cashbacks, obligations resulting from loyalty programs and construction contributions received. Construction contributions received are mainly attributable to district heating grids. The amortisation periods of these received amounts are equal to the depreciation periods of the underlying assets with a maximum of 30 years.

## Note 6 Impairment losses and reversed impairment losses

### Accounting policy

#### General principles

Assessments are made throughout the year for any indication that an asset may have decreased in value. If there is an indication of this kind, the asset's recoverable amount is estimated. For goodwill and other intangible assets with an indefinite useful life and for intangible assets that are still not ready for use, the recoverable amount is calculated at least annually or as soon there is an indication that an asset has decreased in value.

If the essentially independent cash flow for an individual asset cannot be established for the assessment of any need for impairment, the assets must be grouped at the lowest level where it is possible to identify the essentially independent cash flow (a so-called cash-generating unit). An impairment loss is reported when an asset or cash-generating unit's reported value exceeds the recoverable amount. Any impairment loss is recognised in profit or loss. Impairment of assets attributable to a cash-generating unit is allocated primarily to goodwill. Thereafter, a proportional impairment loss is conducted of other assets that are part of the unit.

#### Calculation of the recoverable amount

The recoverable amount is the higher of fair value less costs to sell and value in use. When calculating value in use, the future cash flow is discounted by a discounting rate that takes into consideration risk-free interest and the risk associated with the specific asset.

#### Reversal of impairment losses

Impairment of goodwill is never reversed. Impairment of other assets is reversed if a significant and lasting change has occurred in the assumptions that formed the basis for the calculation of the recoverable amount. An impairment loss is reversed only if the asset's carrying amount after reversal does not exceed the carrying amount that the asset would have had if the impairment loss had not been recognised.

**Financial information**

**Process for impairment testing**

The main assumptions that executive management has used in calculating projections of future cash flows in cash-generating units with finite useful lives are based on forecasts of the useful life of the respective assets. The projected cash flows are based on market prices and on Vattenfall's long-term market outlook. The calculated revenues in these forecasts are based on Vattenfall's long-term pricing projections, which are the result of a large number of simulations of the prices of oil, coal, gas, electricity and $CO_2$ emission allowances in the relevant commodity markets. The long-term market outlook is based on internal and external input parameters and is benchmarked against external price projections. Based on the price assumptions, the dispatch of the power plants is calculated, taking technical, economic and legal constraints into consideration. Technical flexibility of the assets, that is the ability to adapt generation to changes in spot market prices, has been taken into account. Cash flow projections of other cash-generating units are based on the business plan for the coming five years, after which their residual value is taken into account, based on a growth factor of 0% (0%).

Future cash flows have been discounted to value in use using the following discount rates.

**Discount rate Thermal Power**

| 2018 | | 2017 | |
|---|---|---|---|
| **Before tax** | **After tax** | **Before tax** | **After tax** |
| 8.8% | 7.0% | 9% | 7.2% |

The discount rate varies for the various asset classes, depending on their risk. When setting the discount rate, consideration has been given to the extent of exposure this has for changes in wholesale prices of electricity, fuel, $CO_2$ emission allowances, and regulatory risks. An increase in the discount rate by 0.5 percentage points would decrease the estimated value in use for the cash-generating unit Thermal Power by approximately EUR 110 million.

Electricity prices and margins for generation assets represent another major value driver. The most important production margins are the "clean spark spread" for gas-fired power plants and the "clean dark spread" for hard coal-fired power plants. Those spreads include electricity prices as well as the respective cost for fuel and $CO_2$ emission allowances to produce the electricity, considering fuel type and efficiency factors. Based on the assumptions used in the impairment testing, a reduction of 5% in future margin would decrease the estimated value in use for the cash-generating unit Thermal Power segment by 8% or approximately EUR 135 million.

Vattenfall NV has performed impairment testing by calculating the value in use of the cash-generating units. The structure of the cash-generating units, which represent the smallest group of identifiable assets that generate continuous cash inflows that are largely independent of other assets or groups of assets, is based on the Vattenfall AB's Business Area structure.

Vattenfall NV closely monitors market developments on a continuous basis and their impact on operations.

No previously recognised impairment losses were reversed in the income statement in 2018.

**Impairment losses 2018**

Impairment losses charged against operating profit in 2018 amounted to EUR 11 million.

**Impairment losses 2017**

No impairment losses were recognised in 2017.

## Note 7 Other external expenses

| | **2018** | **2017** |
|---|---|---|
| Purchased services | 161 | 145 |
| IT expenses | 21 | 20 |
| Consulting expenses | 72 | 67 |
| Rent and lease expenses | 33 | 35 |
| Marketing and selling expenses | 29 | 30 |
| Other | 116 | 96 |
| **Total** | **432** | **393** |

## Note 8 Financial income

**Accounting policy**

Interest income is reported as it is earned. The calculation is made on the basis of the return on underlying assets in accordance with the effective interest method. Dividend income is reported when the right to receive payment is established. Interest income is adjusted for transaction costs and any rebates, premiums and other differences between the original value of the receivable and the amount received when due.

**Financial information**

| | **2018** | **2017** |
|---|---|---|
| Interest income | 6 | 1 |
| Capital gains from divestments of shares and participations | – | 1 |
| **Total** | **6** | **2** |

## Note 9 Financial expenses

### Accounting policy
For calculation of interest effects attributable to provisions, discount rates have been used, see Note 23 to the consolidated accounts, Provisions, for the discount rates used. Issue costs and similar direct transaction costs for raising loans are distributed over the term of the loan in accordance with the effective interest method. Borrowing costs directly attributable to investment projects in non-current assets which take a substantial period of time to complete are not reported as a financial expense but are included in the cost of the non-current asset during the construction period. Leasing fees pertaining to finance leases are distributed between interest expense and amortisation of the outstanding debt. Interest expenses are distributed over the leasing period so that each accounting period is charged in the amount corresponding to a fixed interest rate for the reported debt in each period. Variable fees are carried as an expense in the period in which they arise.

### Financial information

| | 2018 | 2017 |
|---|---|---|
| Interest expenses attributable to loans | 10 | 14 |
| Interest effects attributable to provisions | 1 | 1 |
| **Total** | **11** | **15** |

## Note 10 Income taxes

### Accounting policy
Income taxes comprises current tax and deferred tax. Income tax is reported in the income statement except when the underlying transaction is reported in Other comprehensive income or in Equity, whereby also the associated tax effect is reported in Other comprehensive income and Equity, respectively.

Current tax is tax to be paid or received for the current year, with the application of the tax rates that are established or, established in practice as of the balance sheet date. Adjustments of tax paid attributable to previous periods are also included in this.

Deferred tax is calculated in accordance with the balance sheet method on the basis of temporary differences between the reported and taxable values of assets and liabilities. The valuation of deferred tax is based on how the reported value of assets or liabilities is expected to be realised or settled. Deferred tax is calculated in accordance with the tax rates and tax rules that have been established or have been established in practice by the balance sheet date.

Deferred tax assets concerning non-deductible temporary differences and tax-loss carry forwards are only reported to the extent that it will be possible for these to be used. The value of deferred tax assets is reduced when it is no longer considered likely that they can be used.

### Important estimations and assessments
On its balance sheet, Vattenfall NV reports deferred tax assets and liabilities that are expected to be realised in future periods. In calculating these deferred taxes, certain assumptions and estimations must be made. The estimations include assumptions about future taxable earnings, that applicable tax laws and tax rates will be unchanged in the countries in which the Company is active, and that applicable rules for utilising tax-loss carryforwards will not be changed.

### Financial information
**Breakdown of the reported income tax**

| | 2018 | 2017 |
|---|---|---|
| Current tax expense (-)/ tax income (+) | -29 | -14 |
| Adjustment of current tax expense (-) / tax income (+) for prior periods | 4 | 2 |
| Deferred tax expense (-)/ tax income (+) | -60 | -94 |
| **Total** | **-85** | **-106**[1] |

1) The amount has been restated as a result of the implementation of new IFRS's (IFRS 9 and IFRS 15) which became effective as of 1 January 2018. The implementation of these new IFRS's was applied fully retrospectively. Reference is made to note 2 which includes a summary of the impact of this on the profit and loss accounts, balance sheet and equity.

**The difference between the nominal Dutch tax rate and the effective tax rate is explained as follows:**

| | 2018 | | 2017 | |
|---|---|---|---|---|
| | % | | % | |
| Profit before tax | | 296 | | 451[1] |
| Dutch income tax rate at 31 December | 25.0 | -74 | 25.0 | -112[1] |
| Difference in tax rate in foreign operations | 0.4 | -1 | -0.2 | 1 |
| Tax adjustments for previous periods | -1.2 | 4 | -0.5 | 2 |
| Non-taxable income | -3.4 | 10 | -0.3 | 1 |
| Revaluation of previously non-valued losses and other temporary differences | -0.3 | 1 | 0.0 | – |
| Non-deductible expenses | 0.1 | – | 0.0 | – |
| Energy investment allowance | -0.5 | 1 | -0.5 | 2 |
| Changes in tax rates | 8.3 | -25 | 0.0 | – |
| Other | 0.2 | -1 | 0.0 | – |
| **Effective tax rate** | **28.6** | **-85** | **23.5** | **-106**[1] |

1) The amount has been restated as a result of the implementation of new IFRS's (IFRS 9 and IFRS 15) which became effective as of 1 January 2018. The implementation of these new IFRS's was applied fully retrospectively. Reference is made to note 2 which includes a summary of the impact of this on the profit and loss accounts, balance sheet and equity.

**Balance sheet reconciliation of current tax**

| | 2018 | 2017 |
|---|---|---|
| Balance brought forward net asset (+)/ net liability (-) | 5 | 22 |
| Reclassification | 14 | 2 |
| Divested companies including liabilities associated | -9 | – |
| Change via income statement | -25 | -13 |
| Taxes paid, net | 34 | 3 |
| Reclassification to/from other receivables/liabilities | – | -9 |
| **Balance carried forward net asset (+)/ net liability (-)** | **19** | **5** |

**Breakdown of the deferred tax**

| | 2018 | 2017 |
|---|---|---|
| Property, plant and equipment | 178 | 213 |
| Intangible assets | 4 | 10[1] |
| Non-settled derivatives | -73 | -67 |
| Settled derivatives | 1 | 8 |
| Tax losses carried forward | – | 1 |
| Provisions | 6 | 5 |
| Other | -1 | -2 |
| **Total** | **115** | **168**[1] |

1) The amount has been restated as a result of the implementation of new IFRS's (IFRS 9 and IFRS 15) which became effective as of 1 January 2018. The implementation of these new IFRS's was applied fully retrospectively. Reference is made to note 2 which includes a summary of the impact of this on the profit and loss accounts, balance sheet and equity.

The deferred tax positions for property, plant and equipment and intangible assets mainly represent the differences between the carrying value and the value for tax purposes of the power-generating facilities and are recorded at statutory tax rates.

The deferred tax positions in respect of derivatives reflect the temporary differences – measured at the prevailing tax rate – between the valuation of derivatives for tax purposes and the valuation in the consolidated accounts.

**Unrecognised deferred tax assets**

Unrecognised deferred tax assets relate to the temporary differences in the valuation of tax losses carried forward and amount to EUR 2 million (6). These tax losses carried forward relate to losses in the Netherlands where insufficient taxable profit is considered to be available in the foreseeable future to recognise the losses carried forward. The tax losses up to and including 2018 in the Netherlands expire in the coming 1-9 years.

## Note 11 Leasing

### Accounting policy

Expenses paid for operating leases are reported in the income statement on a straight-line basis over the leasing period. Leases are classified as either finance or operating leases. A finance lease exists when the economic risks and benefits associated with ownership are, in essence, transferred to the lessee. If this is not the case, it is classified as an operating lease.

**Leased assets**

Assets leased under finance leases are reported as assets on the consolidated balance sheet. The commitment to pay future leasing charges is reported as a non-current or current liability. The leased assets are depreciated on a straight-line basis over the shorter of the leasing period or useful life, while the leasing payments are reported as interest and amortisation of the debts.

Operating leases normally entail recognition of the leasing charge as an expense on a straight-line basis over the leasing period.

**Assets leased out**

Assets that are leased out under finance leases are not reported as Property, plant and equipment, since the risks associated with ownership are transferred to the lessee. Instead, a financial receivable is entered for the future minimum lease payments.
Assets leased out under operating leases are reported as Property, plant and equipment and are subject to depreciation.

### Financial information

**Leasing expenses**

Vattenfall NV has off-balance operating lease payables related to district heating networks, buildings, company cars, IT assets and gas storage assets. Future payment commitments, as of 31 December 2018, for leasing contracts are broken down as follows:

| | Operating leasing |
|---|---|
| 2019 | 36 |
| 2020 | 26 |
| 2021 | 14 |
| 2022 | 13 |
| 2023 | 10 |
| 2024 and beyond | 19 |
| **Total** | **118** |

The current year's leasing expenses amounted to EUR 37 million (36).

**Leasing revenues**

Leasing revenues and future receivables relate mainly to leases of production facilities and heating equipment to consumers. On 31 December 2018, cost of assets reported under operating leases amounted to EUR 509 million (508). Accumulated depreciation amounted to EUR 308 million (286) and accumulated impairment losses amounted to EUR 25 million (28).

Future receivables payments for this type of facility are broken down as follows:

| | Operating leasing |
|---|---|
| 2019 | 105 |
| 2020 | 102 |
| 2021 | 99 |
| 2022 | 97 |
| 2023 | 94 |
| 2024 and beyond | 192 |
| **Total** | **689** |

The district heating grids belonging to Alliander N.V. which had been placed within a cross-border lease, were subleased to N.V. Nuon Warmte, now part of Vattenfall NV, as of mid 2008 until 2020. This was done in connection with the implementation of the Independent Network Operation Act (WON) and preparations for the unbundling of our former shareholder N.V. Nuon. The strip risk (the part of the termination value – i.e. the possible compensation payable by Vattenfall NV to N.V. Alliander in the event of premature termination of the transaction – that cannot be settled from the deposits and investments held for this purpose) related to these subleased assets is borne by Vattenfall NV and amounted to USD 31 million as of December 31, 2018 (29). As these subleases are still operational, no liability for this strip risk is included on the balance sheet.

## Note 12 Intangible assets: non-current

### Accounting policy

**Other intangible non-current assets**

Other intangible non-current assets such as concessions, patents, licences, trademarks and similar rights as well as renting rights are reported at cost less accumulated amortisation and impairment losses.

### Principles for amortisation

Amortisation of intangible non-current assets other than goodwill is reported on a straight-line basis in the income statement over the estimated useful life of the asset, provided the useful life is not indefinite.

### Important estimations and assessments

Intangible assets are tested for impairment in accordance with the accounting policies described in Note 6 to the consolidated accounts, impairment losses and reversed impairment losses. The recoverable amount for cash-generating units is determined by calculating the value in use or fair value less costs to sell. For these calculations, certain estimations must be made regarding future cash flows along with other adequate assumptions regarding the required rate of return, for example.

### Financial information

| | 2018 | | |
|---|---|---|---|
| | Concessions and similar rights with finite useful lives | Cost to obtain a contract | Total |
| **Cost** | | | |
| Cost brought forward | 213 | 39 | **252** |
| Investments | 6 | 26 | **32** |
| Divestments/disposals | – | -4 | **-4** |
| **Accumulated cost carried forward** | **219** | **61** | **280** |
| **Amortisation according to plan** | | | |
| Amortisation brought forward | -19 | -14 | **-33** |
| Amortisation for the year | -3 | -15 | **-18** |
| Divestments/disposals | – | 4 | **4** |
| **Accumulated amortisation according to plan carried forward** | **-22** | **-25** | **-47** |
| **Impairment losses** | | | |
| Impairment losses brought forward | -52 | – | **-52** |
| Impairment losses for the year | -8 | -3 | **-11** |
| Divestments/disposals | – | – | **–** |
| **Accumulated impairment losses carried forward** | **-60** | **-3** | **-63** |
| **Residual value according to plan carried forward** | **137** | **33** | **170** |

| | 2017 | | |
|---|---|---|---|
| | **Concessions and similar rights with finite useful lives**[1] | **Cost to obtain a contract**[1] | **Total** |
| **Cost** | | | |
| Cost brought forward | 99 | 25 | **124** |
| Investments | 114 | 16 | **130** |
| Divestments/disposals | – | -2 | **-2** |
| **Accumulated cost carried forward** | **213** | **39** | **252** |
| **Amortisation according to plan** | | | |
| Amortisation brought forward | -16 | -5 | **-21** |
| Amortisation for the year | -3 | -11 | **-14** |
| Divestments/disposals | – | 2 | **2** |
| **Accumulated amortisation according to plan carried forward** | **-19** | **-14** | **-33** |
| **Impairment losses** | | | |
| Impairment losses brought forward | -52 | – | **-52** |
| Impairment losses for the year | – | – | **–** |
| Divestments/disposals | – | – | **–** |
| **Accumulated impairment losses carried forward** | **-52** | **–** | **-52** |
| **Residual value according to plan carried forward** | **142** | **25** | **167** |

1) The amount has been restated as a result of the implementation of new IFRS's (IFRS 9 and IFRS 15) which became effective as of 1 January 2018. The implementation of these new IFRS's was applied fully retrospectively. Reference is made to note 2 which includes a summary of the impact of this on the profit and loss accounts, balance sheet and equity.

| **Estimated useful life** | |
|---|---|
| Concessions and similar rights | 1-60 years |
| Contract assets | 1-3 years |

Estimated useful lives are unchanged compared with the preceding year.

## Note 13 Property, plant and equipment

### Accounting policy

Property, plant and equipment are reported as assets on the balance sheet if it is likely that there will be future financial benefit for the company and the cost of the asset can be calculated in a reliable manner. Cost includes the purchase price and costs directly attributable to putting the asset in place and in a suitable condition for use in accordance with the management's intention of the acquisition. Examples of directly attributable expenses included in cost are delivery and handling, installation, land registration and consulting services. Borrowing costs directly attributable to investment projects in property, plant and equipment, which take a substantial period of time to complete, are included in the cost of the asset during the construction period.

### Subsequent costs

Subsequent costs for property, plant and equipment are only added to the acquisition cost if it is likely that there will be future financial benefits associated with the asset for the company and the cost can be calculated in a reliable manner. All other subsequent costs are reported as expenses in the period when they arise. What is decisive for the assessment when a subsequent cost is added to the acquisition cost is whether the cost concerns the replacement of identified components, or parts of them, whereby such costs are capitalised. Also, in cases where new components are created, the cost is added to the cost of the asset. Any undepreciated reported values of replaced components, or parts of components, are retired and carried as an expense in connection with the replacement. Repairs and maintenance are expensed as incurred.

### Depreciation principles

Depreciation is reported on a straight-line basis in the income statement over the estimated useful life of the asset. The Group applies component depreciation, which means that the components' estimated useful life provides the basis for the straight-line depreciation. Estimated useful life is described below in this note. Assessments of the residual value and useful life of an asset are conducted annually. Land and water rights are not subject to depreciation.

**Important estimations and assessments**

Property, plant and equipment are tested for impairment in accordance with the accounting policies described in Note 6 to the consolidated accounts, Impairment losses and reversed impairment losses. The recoverable amount for cash-generating units is determined by calculating the value in use or fair value less costs to sell. For these calculations, certain estimations must be made regarding future cash flows along with other adequate assumptions regarding the required rate of return, for example.

| | 2018 | | | | |
|---|---|---|---|---|---|
| | Land and buildings[1] | Plant and machinery and other technical installations | Equipment, tools, fixtures and fittings | Construction in progress[2] | Total |
| **Cost** | | | | | |
| Cost brought forward[3] | 54 | 5,455 | 523 | 118 | **6,150** |
| Acquired companies | – | – | – | – | **–** |
| Investments[4] | 1 | 10 | -6 | 191 | **196** |
| Capitalised/reversed future expenses for decommissioning, restoration | 6 | 2 | – | – | **8** |
| Transfer from construction in progress | – | 94 | 16 | -110 | **–** |
| Divestments/disposals | – | -11 | -12 | – | **-23** |
| Other reclassifications | – | – | – | – | **–** |
| Divested companies | – | -466 | – | -3 | **-469** |
| Translation differences | – | – | – | – | **–** |
| **Accumulated cost carried forward** | **61** | **5,084** | **521** | **196** | **5,862** |
| **Depreciation according to plan** | | | | | |
| Depreciation brought forward | -17 | -1,362 | -329 | – | **-1,708** |
| Depreciation for the year | -2 | -133 | -17 | – | **-152** |
| Divestments/disposals | – | 7 | 8 | – | **15** |
| Other reclassifications | – | – | – | – | **–** |
| Divested companies | – | 61 | – | – | **61** |
| **Accumulated depreciation according to plan carried forward** | **-19** | **-1,427** | **-338** | **–** | **-1,784** |
| **Impairment losses** | | | | | |
| Impairment losses brought forward | -14 | -2,146 | -30 | – | **-2,190** |
| **Accumulated impairment losses carried forward** | **-14** | **-2,146** | **-30** | **–** | **-2,190** |
| **Residual value according to plan carried forward** | **28** | **1,511** | **153** | **196** | **1,888** |

1) Cost for land and buildings includes cost of land and water rights amounting to EUR 1 million (1), which are not subject to depreciation.
2) Borrowing costs during the construction period have been reported as an asset in the amount of EUR 0 million (2) for the year. The average interest rate for 2017 was 2.8%.
3) Government grants received, balance brought forward, amount to EUR 65 million (64).
4) Government grants received during the year amounted to EUR 0 million (1).

| | 2017 | | | | |
|---|---|---|---|---|---|
| | **Land and buildings[1]** | **Plant and machinery and other technical installations** | **Equipment, tools, fixtures and fittings** | **Construction in progress[2]** | **Total** |
| **Cost** | | | | | |
| Cost brought forward[3] | 55 | 5,079 | 525 | 424 | **6,083** |
| Acquired companies | — | — | — | 6 | **6** |
| Investments[4] | 1 | 6 | 5 | 171 | **183** |
| Capitalised/reversed future expenses for decommissioning, restoration | 1 | — | — | — | **1** |
| Transfer from construction in progress | — | 467 | 7 | -474 | **—** |
| Divestments/disposals | -3 | -34 | -14 | -1 | **-52** |
| Other reclassifications | — | -55 | — | — | **-55** |
| Divested companies | — | — | — | — | **—** |
| Translation differences | — | -8 | — | -8 | **-16** |
| **Accumulated cost carried forward** | **54** | **5,455** | **523** | **118** | **6,150** |
| **Depreciation according to plan** | | | | | |
| Depreciation brought forward | -17 | -1,308 | -324 | — | **-1,649** |
| Depreciation for the year | -2 | -134 | -15 | — | **-151** |
| Divestments/disposals | 2 | 25 | 10 | — | **37** |
| Other reclassifications | — | 55 | — | — | **55** |
| Divested companies | — | — | — | — | **—** |
| **Accumulated depreciation according to plan carried forward** | **-17** | **-1,362** | **-329** | **—** | **-1,708** |
| **Impairment losses** | | | | | |
| Impairment losses brought forward | -14 | -2,146 | -30 | — | **-2,190** |
| **Accumulated impairment losses carried forward** | **-14** | **-2,146** | **-30** | **—** | **-2,190** |
| **Residual value according to plan carried forward** | **23** | **1,947** | **164** | **118** | **2,252** |

1) Cost for land and buildings includes cost of land and water rights amounting to EUR 1 million (1), which are not subject to depreciation.
2) Borrowing costs during the construction period have been reported as an asset in the amount of EUR 0 million (2) for the year. The average interest rate for 2017 was 2.8%.
3) Government grants received, balance brought forward, amount to EUR 65 million (64).
4) Government grants received during the year amounted to EUR 0 million (1).

| **Estimated useful life** | |
|---|---|
| Hydro power installations | 5-40 years |
| Combined heat and power installations | 5-40 years |
| Wind power installations | 10-20 years |
| Solar power installations | 5-25 years |
| Office and warehouse buildings and workshops | 25-50 years |
| Office equipment | 5-10 years |

Estimated useful lives are unchanged compared with the preceding year.

## Note 14 Shares and participations owned by Vattenfall NV and other Group companies

The following list includes the significant subsidiaries, associated companies and joint ventures and the share that Vattenfall NV holds in these entities.

**Shares and participations owned by Vattenfall NV**

| | Registered office | Participation in % 2018 | Participation in % 2017 |
|---|---|---|---|
| **Subsidiaries** | | | |
| **Netherlands** | | | |
| Vattenfall Energy Sourcing Netherlands N.V.[1] | Amsterdam | 100 | 100 |
| Vattenfall Power Generation Netherlands B.V.[1] | Amsterdam | 100 | 100 |
| Nuon Storage B.V. | Amsterdam | 100 | 100 |
| Vattenfall Duurzame Energie N.V.[1] | Amsterdam | 100 | 100 |
| Vattenfall Wind Development Netherlands B.V.[1] | Amsterdam | 100 | 100 |
| Vattenfall Windpark Wieringermeer B.V. | Amsterdam | 100 | 100 |
| Vattenfall Windpark Wieringermeer EXT B.V. | Amsterdam | 100 | 100 |
| ENW Duurzame Energie B.V.[1] | Amsterdam | 100 | 100 |
| Nuon Power Projects I B.V.[1] | Amsterdam | 100 | 100 |
| Vattenfall Energy Trading Netherlands N.V.[1] | Amsterdam | 100 | 100 |
| N.V. Nuon Warmte[1] | Amsterdam | 100 | 100 |
| N.V. Nuon Sales Nederland[1] | Amsterdam | 100 | 100 |
| Ingenieursbureau Ebatech B.V.[1] | Amsterdam | 100 | 100 |
| Yellow & Blue Clean Energy Investments B.V. | Amsterdam | 100 | 100 |
| N.V. Nuon Klantenservice[1] | Arnhem | 100 | 100 |
| Nuon Epe Gas Service B.V.[1] | Amsterdam | 100 | 100 |
| Feenstra N.V.[1] | Amsterdam | 100 | 100 |
| Feenstra Veiligheid B.V.[1] | Amsterdam | 100 | 100 |
| Feenstra Verwarming B.V.[1] | Lelystad | 100 | 100 |
| Zuidlob Wind B.V.[1] | Amsterdam | 100 | 100 |
| powerpeers B.V.[1] | Amsterdam | 100 | 100 |
| Nuon Samen in Zon B.V. | Amsterdam | 100 | 100 |
| Vattenfall Hollandse Kust Zuid C.V. | Amsterdam | 100 | 100 |
| **Germany** | | | |
| Nuon Epe Gasspeicher GmbH | Heinsberg | 100 | 100 |
| **United Kingdom** | | | |
| Nuon UK Ltd. | Long Rock, Penzance | – | 100 |
| Pen Y Cymoedd Wind Farm Ltd. | Long Rock, Penzance | – | 100 |
| Swinford Wind Farm Ltd. | Long Rock, Penzance | – | 100 |

1) Vattenfall NV has issued a declaration of liability for these subsidiaries. A complete list of subsidiaries, associated companies and joint ventures, as required by sections 379 and 414 of Book 2 Title 9 of the Dutch Civil Code, is filed with the Chamber of Commerce in Amsterdam.

## Note 15 Participations in associated companies and joint arrangements

### Shares and participations owned by the Company or by other Group companies

| | Registered office | Participation in % 2018 | Carrying amount 2018 | Carrying amount 2017 |
|---|---|---|---|---|
| **Associated companies and joint ventures owned by Vattenfall NV** | | | | |
| **Netherlands** | | | | |
| B.V. Nederlands Elektriciteit Administratiekantoor | Amsterdam | 23 | 7 | 7 |
| NoordzeeWind C.V. | IJmuiden | 50 | 8 | 12 |
| Westpoort Warmte B.V. | Amsterdam | 50 | 10 | 7 |
| Other associated companies and joint ventures | | | 6 | 7 |
| **Total** | | | **31** | **33** |

The activities of the joint ventures and associated companies mainly relate to the construction and operation of wind farms and heat grids. The joint ventures and associated companies have no other significant contingent liabilities or commitments as at 31 December 2018 and 2017, except for those disclosed in Note 30.

### Participations in the results of associated companies

| | 2018 | 2017 |
|---|---|---|
| **Netherlands** | | |
| B.V. Nederlands Elektriciteit Administratiekantoor | -1 | – |
| NoordzeeWind C.V. | -4 | -2 |
| Westpoort Warmte B.V. | 3 | 1 |
| Other associated companies and joint ventures | 1 | 2 |
| **Total** | **-1** | **1** |

These joint ventures and associated companies cannot distribute their profits without the consent of the other investors in the relevant joint venture or associated company.

## Note 16 Inventories

### Accounting policy

Inventories (except for inventories held for trading) are valued at the lower of their cost and net realisable value. Net realisable value is the estimated sales price in operating activities, less estimated costs for completion and to bring about a sale. The cost of inventories is calculated, depending on the type of inventory, either through application of the first-in, first-out (FIFO) method or through the application of a method based on average prices. Both methods include costs that arose on acquisition of the inventory assets.

Inventories held for trading are valued at fair value less costs to sell. For $CO_2$ emission allowances that are held for trading, fair value is based on quoted prices (Level 1). For other commodities fair value measurement is derived from an observable market price (API#2 for coal), which means a categorisation into Level 2 of the fair value hierarchy. See Note 3 to the consolidated accounts, Accounting policies.

### Financial information

| | 2018 | 2017 |
|---|---|---|
| **Inventories held for own use** | | |
| Materials and spare parts | 26 | 27 |
| $CO_2$ emission allowances/certificates | – | 4 |
| Other | 2 | – |
| **Total** | **28** | **31** |
| **Inventories held for trading** | | |
| Fossil fuel | 94 | 47 |
| $CO_2$ emission allowances/certificates | 3 | 1 |
| Biomass | 5 | 6 |
| **Total** | **102** | **54** |
| **Total inventories** | **130** | **85** |

## Note 17 Trade receivables and other receivables

### Accounting policy

Vattenfall NV classifies trade receivables as doubtful when – after a missed or significantly late payment and individual assessment of the debtor's financial conditions – a need to recognise impairment can be considered to exist. Impairment is determined on the basis of historical experience of customer losses for similar receivables. Impaired trade receivables are reported at the present value of anticipated future cash flows. When determining any need to recognise impairment, the existence of any credit insurance and other forms of security is also taken into account.

### Financial information

| | 2018 | 2017 |
|---|---|---|
| Accounts receivable - trade | 349 | 330 |
| Receivables from related companies | 1,948 | 2,737 |
| Other receivables | 21 | 28 |
| **Total** | **2,318** | **3,095** |

### Age analysis

The collection period is normally between 10 and 30 days.

| | 2018 | | | 2017 | | |
|---|---|---|---|---|---|---|
| | **Receivables, gross** | **Impaired receivables** | **Receivables, net** | **Receivables, gross** | **Impaired receivables** | **Receivables, net** |
| **Accounts receivable - trade** | | | | | | |
| Not due | 288 | 1 | **287** | 280 | 1 | **279** |
| Past due 1-30 days | 33 | 1 | **32** | 23 | 1 | **22** |
| Past due 31-90 days | 13 | 1 | **12** | 11 | 1 | **10** |
| Past due >90 days | 34 | 16 | **18** | 35 | 16 | **19** |
| **Total** | **368** | **19** | **349** | **349** | **19** | **330** |

## Note 18 Advance payments paid

| | 2018 | 2017 |
|---|---|---|
| Margin calls paid, energy trading | 8 | 15 |
| **Total** | **8** | **15** |

A margin call paid is a marginal security (collateral) that Vattenfall NV pays its counterparty, that is, to the holder of a derivative position to cover the counterpart's credit risk, either bilaterally via OTC or through an exchange. In Vattenfall's business activities, margin calls occur in energy trading and in the financing activities.

## Note 19 Prepaid expenses and accrued income

| | 2018 | 2017 |
|---|---|---|
| Prepaid expenses and accrued income, electricity | 100 | 112 |
| Prepaid expenses, other | 5 | 5 |
| Accrued income, other | 2 | 1 |
| **Total** | **107** | **118** |

## Note 20 Cash and cash equivalents

| | 2018 | 2017 |
|---|---|---|
| Cash and bank balances | 45 | 32 |
| **Total** | **45** | **32** |

The effective interest rate on credit balances available on demand and short-term deposits was 0.0% (2017: 0.0%). Cash and cash equivalents are denominated almost entirely in euros. Cash and cash equivalents included no cash and deposits to which Vattenfall NV does not have free access.

## Note 21 Interest-bearing liabilities

Reported values for interest-bearing liabilities are specified as follows:

| | Non-current portion maturity 1-5 years | | Non-current portion maturity >5 years | | Total non-current portion | | Current portion | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2018 | 2017 | 2018 | 2017 | 2018 | 2017 | 2018 | 2017 | 2018 | 2017 |
| GBP Loans Vattenfall | – | – | – | – | **–** | **–** | – | 270 | **–** | **270** |
| Current account Vattenfall | – | – | – | – | **–** | **–** | – | 30 | **–** | **30** |
| Other liabilities | 13 | 8 | 14 | 17 | **27** | **25** | 2 | 1 | **29** | **26** |
| **Total interest-bearing liabilities** | **13** | **8** | **14** | **17** | **27** | **25** | **2** | **301** | **29** | **326** |

## Note 22 Pension

### Accounting policy

Vattenfall's NV pension obligations are defined contribution plans.

#### Defined contribution pension plans

Defined contribution pension plans are post-employment benefit plans according to which fixed fees are paid to a separate legal entity. There is no legal or constructive obligation to pay additional fees if the legal entity does not have sufficient assets to pay all benefits to the employees. Fees for defined contribution pension plans are reported as an expense in the income statement in the period they apply to.

#### Dutch pension plans

Vattenfall NV has various pension and similar plans for its current and former employees. The majority of the pension obligations has been transferred to the ABP pension fund and the 'Metaal en Techniek' pension fund. In addition to these two main pension plans, Nuon has a small number of defined benefit plans that are in aggregate not material. The ABP and 'Metaal en Techniek' plans have been classified as defined contribution plans and are reported as such. The coverage ratio of the ABP pension fund amounts to 103.8% (2017: 104.4%) and the pension premium for 2019 amounts to 24.9% (2018: 21.5%). The coverage ratio of the 'Metaal en Techniek' pension fund amounts to 102.3% (2017: 102.1%) and the pension premium for 2019 amounts to 28.0% (2018: 28.5%).

## Note 23 Provisions

### Accounting policy

A provision is reported on the balance sheet when the Group has a legal or constructive obligation as a result of an event and it is probable that an outflow of financial resources will be required to regulate the obligation and a reliable estimate of the amount can be made. Where the effect of the time when payment is made is material, provisions are estimated by discounting the anticipated future cash flow at an interest rate before tax that reflects market estimates of time value of money. The discount rate does not reflect such risks that are taken into consideration in the estimated future cash flow.

Changes in discounted provisions for dismantling, restoration or similar measures, which at the time of acquisition have also been reported as tangible non-current assets, are reported as follows: In cases where the change is due to a change in the estimated outflow of resources or a change in the discount rate, the cost of a non-current tangible asset is changed in an amount corresponding to the provision. The periodic change of the present value is recognised as a financial expense.

Provisions are also reported for onerous contracts, that is, where unavoidable costs of meeting the obligations under the contract exceed the economic benefits expected to be received from the contract.

### Important estimations and assessments

**Other provisions**

For other types of provisions, such as provisions for future expenses for gas and wind operations and other environmental measures/undertakings, and for personnel-related provisions for non-pension purposes, provisions for tax and legal disputes, or other provisions, the following discount rate of 0.75 % (1.00 %) is used.

### Financial information

| | Non-current portion | | Current portion | | Total | |
|---|---|---|---|---|---|---|
| | **2018** | **2017** | **2018** | **2017** | **2018** | **2017** |
| Provisions for future expenses of gas and wind operations and other environmental measures/undertakings | 30 | 31 | 1 | 1 | **31** | **32** |
| Personnel-related provisions for non-pension purposes | 24 | 27 | 16 | 7 | **40** | **34** |
| Other provisions | 21 | 26 | 3 | 20 | **24** | **46** |
| **Total** | **75** | **84** | **20** | **28** | **95** | **112** |

**Movement schedule provisions**

| | **Provisions for gas, wind and other environmental measures** | **Personnel-related provisions for non-pension purposes** | **Other provisions** |
|---|---|---|---|
| Balance brought forward | 32 | 34 | 46 |
| Provisions for the period | – | 16 | -4 |
| Reclassified to/from other provision | – | 13 | -13 |
| Revaluations | 8 | – | – |
| Provisions used | – | -11 | – |
| Provisions reversed | – | -12 | -5 |
| Divested companies | -9 | – | – |
| **Balance carried forward** | **31** | **40** | **24** |

***Provisions for future expenses for gas and wind operations and other environmental measures/ undertakings***
Provisions are made in the Netherlands for the dismantling and removal of assets and restoration of sites where the Group conducts gas operations. Provisions are also made for restoration of sites where the Group conducts wind operations and for environmental measures/undertakings within other activities carried out by the Group.

***Personnel-related provisions for non-pension purposes***
Provisions are made for future costs pertaining to long-term time accounts, jubilee payments, severance payments related to restructuring measures, and other costs for giving notice to personnel.

***Other provisions***
Other provisions include, among others, provisions for onerous contracts, restructuring and guarantee commitments.

**Future expenses of non-current provisions**
With the current assumptions, provisions are expected to result in outgoing payments as shown below:

| | Provisions for gas, wind operations | Personnel-related provisions | Other provisions | Total |
|---|---|---|---|---|
| 2-5 years | 5 | 15 | 6 | **26** |
| 6-10 years | 3 | 9 | 15 | **27** |
| 11-20 years | 7 | – | – | **7** |
| Beyond 20 years | 15 | – | – | **15** |
| **Total** | **30** | **24** | **21** | **75** |

## Note 24 Trade payables and other liabilities

| | 2018 | 2017 |
|---|---|---|
| Accounts payable - trade | 225 | 299 |
| Liabilities to related companies | 1,002 | 1,779 |
| Other liabilities | 399 | 338 |
| **Total** | **1,626** | **2,416** |

## Note 25 Advance payments received

| | 2018 | 2017 |
|---|---|---|
| Margin calls received, energy trading | 4 | 28 |
| Other advance payments | – | 2 |
| **Total** | **4** | **30** |

A margin call received is marginal security (collateral) that Vattenfall NV's counterparty pays to Vattenfall NV as the holder of a derivative position to cover Vattenfall NV's credit risk, either bilaterally via OTC or through an exchange. In Vattenfall NV's business activities, margin calls occur in energy trading and in the treasury operations.

## Note 26 Accrued expenses and deferred income

| | 2018 | 2017 |
|---|---|---|
| Accrued personnel-related costs | 43 | 47 |
| Accrued expenses, $CO_2$ emission allowances | 102 | 38 |
| Other accrued expenses | 10 | 21 |
| Deferred income and accrued expenses, electricity | 143 | 107[1] |
| Other deferred income | 7 | 10[1] |
| **Total** | **305** | **223**[1] |

1) The amount has been restated as a result of the implementation of new IFRS's (IFRS 9 and IFRS 15) which became effective as of 1 January 2018. The implementation of these new IFRS's was applied fully retrospectively. Reference is made to note 2 which includes a summary of the impact of this on the profit and loss accounts, balance sheet and equity.

## Note 27 Financial instruments

### Accounting policy

**Classification and measurement**

***Financial assets***

Financial assets are classified in various categories based in part on the objective (the business model) of holding the financial asset, and in part on the financial instrument's contractual cash flows, in the event they consist only of principal amounts and interest. The classification is determined at the original point of acquisition. Settlement day accounting is applied for spot purchases and spot sales of financial assets.

*Amortised cost*

Financial assets (debt instruments) are classified in this category if they are held in a business model whose objective is to hold financial assets in order to collect their contractual cash flows, and if the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding. These instruments are measured at amortised cost, where the reported gross value is adjusted for expected credit losses. For Vattenfall NV this category includes Other non-current receivables, Trade receivables and other receivables, Advance payments paid, and Cash and bank balances.

*Fair value through profit or loss*

This category includes all of Vattenfall NV's financial assets (debt instruments) that are not measured at amortised cost. This includes assets held for trading, which entails that the objective is that they will be sold in the near term, and assets that Vattenfall NV is monitoring and measuring based on fair value. Debt instruments are also classified in this category if the contractual terms do not consist solely of payments of principal and interest.

Derivative assets are always measured at fair value through profit or loss, except for derivative instruments designed as hedge instruments in an effective hedge, where the principles for hedge accounting are used.

The assets in this category are remeasured on a regular basis to fair value with changes in value reported in profit or loss.

***Financial liabilities***

*Financial liabilities at fair value through profit or loss*

Derivative liabilities are always classified in this category. These financial liabilities are measured at fair value with changes in value recognised in profit or loss.

*Other financial liabilities*

In this category, interest-bearing and noninterest-bearing financial liabilities that are not held for trading purposes are reported. Other financial liabilities are measured at amortised cost. Trade liabilities have a short anticipated term and are therefore valued at a nominal amount without discounting.

**Impairment**

Impairment of financial assets is based on models for expected credit losses. For trade receivables that do not include a significant financing component, a simplified method is used, where calculation of the loss reserve is based on expected credit losses for the remaining term. A collective method is used where the receivables are grouped together based on e.g., the number of days past due including any past-due receivables, and a credit loss percentage is calculated for the respective intervals, where in the model Vattenfall NV has based its calculations on experience from historic loss levels for similar receivables while taking into account forward-looking macro-economic conditions that may affect expected cash flows. For individual, significant receivables, an individual assessment may be made. Impairment of trade receivables is reported in operating expenses.

For other financial assets where the policies for impairment are applied, a loss reserve is reported that corresponds to 12 months' expected credit losses at initial recognition. If the credit risk increases significantly since initial recognition, a reserve corresponding to expected credit losses during the entire term is reported. Vattenfall NV presumes that the credit risk has not increased significantly if the instrument has a low credit risk on the balance sheet date, such as instruments with an investment grade rating. The credit risk is considered to have increased significantly if the counterparty's rating has been lowered to a lower rating than investment grade or, alternatively, if the counterparty already had a lower credit rating than investment grade at initial recognition and this rating was significantly lowered further. Expected credit losses are calculated by assessing the probability of default, the loss given default and the exposure at default.

**Hedge accounting**
Hedge accounting is applied for derivative instruments that are included in a documented hedge relationship. The reporting of changes in value depends on the type of hedge entered into.

***Cash flow hedges***
Cash flow hedges are used primarily in the following cases: i) when forward commodity contracts are used to hedge commodity price risk in future purchases and sales, ii) when forward exchange rate contracts are used to hedge currency risk in future purchases and sales in foreign currencies, and iii) when interest rate swaps are used to replace borrowing at a floating interest rate with a fixed interest rate.

For derivative instruments that constitute a hedge instrument in a cash flow hedge, the effective part of the change in value is reported in Other comprehensive income while the ineffective part is recognised directly in profit or loss. The part of the change in value that is reported in Other comprehensive income is then transferred to the income statement in the period when the hedged item affects the income statement. In cases where the hedged item refers to a future transaction, which is later capitalised as a non-financial asset or liability on the balance sheet (for example, when hedging future purchases of non-current assets in a foreign currency), the part of the change in value reported in Other comprehensive income is transferred to and included in the cost of the asset or liability.

## Financial information
Risks arising from financial instruments are described in Note 28 Financial Risks of the consolidated accounts.

**Financial instruments by measurement category**
Presented below are assets and liabilities where the carrying amount differs from the fair value.

| | 2018 | | 2017 | |
|---|---|---|---|---|
| | Carrying amount | Fair value | Carrying amount | Fair value |
| **Financial assets at amortised cost** | | | | |
| Other non-current receivables | 41 | 44 | 46 | 48 |
| **Financial liabilities at amortised cost** | | | | |
| Other non-current interest-bearing liabilities | 27 | 36 | 25 | 36 |

**Offsetting financial assets and financial liabilities**
Presented below are financial assets and liabilities that are subject to enforceable master netting arrangements and similar agreements.

*Assets 31 December 2018*

| | | | | Related amounts not set off on the balance sheet | | |
|---|---|---|---|---|---|---|
| | Gross amounts of recognised financial assets | Gross amounts of recognised financial liabilities set off on the balance sheet | Net amounts of financial assets presented on the balance sheet | Financial liabilities, not intended to be settled net[1] | Cash collateral received | Net amount |
| Derivatives, financial operations | – | – | – | – | – | – |
| Derivatives, commodity contracts | 2,333 | 1,967 | 366 | – | 5 | 361 |
| **Total** | **2,333** | **1,967** | **366** | **–** | **5** | **361** |
| Derivatives, not subject to offsetting | 85 | – | 85 | – | – | 85 |
| **Total derivative assets** | | | **451** | | | **446** |

*Assets 31 December 2017*

| | | | | Related amounts not set off on the balance sheet | | |
|---|---|---|---|---|---|---|
| | Gross amounts of recognised financial assets | Gross amounts of recognised financial liabilities set off on the balance sheet | Net amounts of financial assets presented on the balance sheet | Financial liabilities, not intended to be settled net[1] | Cash collateral received | Net amount |
| Derivatives, financial operations | 1 | – | 1 | – | – | 1 |
| Derivatives, commodity contracts | 2,294 | 1,882 | 412 | – | 28 | 384 |
| **Total** | **2,295** | **1,882** | **413** | **–** | **28** | **385** |
| Derivatives, not subject to offsetting | 51 | – | 51 | – | – | 51 |
| **Total derivative assets** | | | **464** | | | **436** |

Net amounts of financial assets presented on the balance sheet with related parties amount to EUR 291 million (285) as of 31 December 2018.

*Liabilities 31 December 2018*

| | | | | Related amounts not set off on the balance sheet | | |
|---|---|---|---|---|---|---|
| | Gross amounts of recognised financial liabilities | Gross amounts of recognised financial assets set off on the balance sheet | Net amounts of financial liabilities presented on the balance sheet | Financial assets, not intended to be settled net[1] | Cash collateral pledged | Net amount |
| Derivatives, financial operations | – | – | – | – | – | – |
| Derivatives, commodity contracts | 1,989 | 1,967 | 22 | – | 8 | 14 |
| **Total** | **1,989** | **1,967** | **22** | **–** | **8** | **14** |
| Derivatives, not subject to offsetting | 23 | – | 23 | – | – | 23 |
| **Total derivative liabilities** | | | **45** | | | **37** |

*Liabilities 31 December 2017*

| | | | | Related amounts not set off on the balance sheet | | |
|---|---|---|---|---|---|---|
| | Gross amounts of recognised financial liabilities | of recognised financial assets set off on the balance sheet | Gross amounts Net amounts of financial liabilities presented on the balance sheet | Financial assets, not intended to be settled net[1] | Cash collateral pledged | Net amount |
| Derivatives, financial operations | 14 | – | 14 | – | – | 14 |
| Derivatives, commodity contracts | 1,946 | 1,882 | 64 | – | 14 | 50 |
| **Total** | **1,960** | **1,882** | **78** | **–** | **14** | **64** |
| Derivatives, not subject to offsetting | 40 | – | 40 | – | – | 40 |
| **Total derivative liabilities** | | | **118** | | | **104** |

1) These items cannot be settled net as each transaction has a unique due date and they were not entered into with the purpose to be settled net. Settlement can be entailed only in case of default.

Net amounts of financial liabilities presented on the balance sheet with related parties amount to EUR 8 million (20) as of 31 December 2018.

**Financial assets and liabilities that are measured at fair value on the balance sheet at 31 December 2018**

| | Level 1 | Level 2 | Level 3 | Total |
|---|---|---|---|---|
| **Assets** | | | | |
| Derivative assets | – | 451 | – | **451** |
| **Total assets** | **–** | **451** | **–** | **451** |
| **Liabilities** | | | | |
| Derivative liabilities | – | 40 | 5 | **45** |
| **Total liabilities** | **–** | **40** | **5** | **45** |

**Financial assets and liabilities that are measured at fair value on the balance sheet at 31 December 2017**

| | Level 1 | Level 2 | Level 3 | Total |
|---|---|---|---|---|
| **Assets** | | | | |
| Derivative assets | – | 451 | 13 | **464** |
| **Total assets** | **–** | **451** | **13** | **464** |
| **Liabilities** | | | | |
| Derivative liabilities | – | 118 | – | **118** |
| **Total liabilities** | **–** | **118** | **–** | **118** |

**Sensitivity analysis for Level 3 contracts**

For the determination of fair value of financial instruments, Vattenfall NV strives to use valuation techniques that maximise the use of observable market data where it is available and rely as little as possible on entity-specific estimates.

Entity-specific estimates are based on internal valuation models that are subject to a defined process of validation, approval and monitoring. In the first step the model is designed by the business. The valuation model and calibration of the valuation model is then independently reviewed and approved by Vattenfall NV's risk organisation. If deemed necessary, adjustments are required and implemented. Afterwards, Vattenfall NV's risk organisation continuously monitors whether the application of the method is still appropriate. This is made by usage of several back-testing tools. In order to reduce valuation risks, the application of the model can be restricted to a limited scope.

Vattenfall NV's Level 3 contracts consist of CDM and virtual gas storage contracts. The net value as per 31 December 2018 has been calculated at EUR -4.6 million (13.1) and is most sensitive to the optionality volatility. A change in the value of the daily volatility of +/-5% would affect the total value by approximately +/- EUR 3.8 million (+/-2.2).

**Derivative assets**

| | Non-current portion maturity 1-5 years | | Non-current portion maturity >5 years | | Total non-current portion | | Current portion | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2018 | 2017 | 2018 | 2017 | 2018 | 2017 | 2018 | 2017 | 2018 | 2017 |
| Financial contracts | – | – | – | – | **–** | **–** | – | – | **–** | **–** |
| Commodity and commodity-related contracts | 98 | 118 | – | – | **98** | **118** | 353 | 346 | **451** | **464** |
| **Total** | **98** | **118** | **–** | **–** | **98** | **118** | **353** | **346** | **451** | **464** |

**Derivative liabilities**

| | Non-current portion maturity 1-5 years | | Non-current portion maturity >5 years | | Total non-current portion | | Current portion | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2018 | 2017 | 2018 | 2017 | 2018 | 2017 | 2018 | 2017 | 2018 | 2017 |
| Financial contracts | – | – | – | – | **–** | **–** | – | 14 | **–** | **14** |
| Commodity and commodity-related contracts | 6 | 6 | – | – | **6** | **6** | 39 | 98 | **45** | **104** |
| **Total** | **6** | **6** | **–** | **–** | **6** | **6** | **39** | **112** | **45** | **118** |

## Note 28 Financial risks

The following risks can be identified with respect to financial instruments: market risk, credit risk and liquidity risk. These risks are managed on a Vattenfall AB level. Vattenfall AB's risk management to the extent to which it is relevant for Vattenfall NV are summarised below.

**Market risk – commodities including electricity**

Market risk for electricity and commodities refers to the risk of Vattenfall failing to achieve its financial targets as a result of an adverse change in commodity prices. Vattenfall AB's price hedging strategy is focused on the Nordic generation assets. Vattenfall NV does not apply hedge accounting for new transactions in its consolidated accounts, since 2017.

**Risk management activities**

Through our asset ownership and sales activities we are exposed to electricity, fuel, and $CO_2$ emission allowance prices, which are affected by several fundamental factors, such as the global macroeconomic situation, local supply, demand, and political decisions. We are active in the wholesale trading market to hedge our electricity position and fuel requirements through physical and financial forward contracts and long-term customer contracts. These contracts pertain to time horizons in which there is no possibility to hedge prices in the liquid part of the futures market, and stretch as far as 2026. Most volumes are hedged at the beginning of this time horizon, with falling volumes towards the end. The Vattenfall Risk Committee (VRC) decides how much generation is to be hedged within the mandates issued by the Board of Directors. To measure electricity price risk, we use methods such as Value at Risk (VaR) and Gross Margin at Risk along with various stress tests. With the current portfolio structure, the dominant risk exposure is now coupled to Nordic nuclear and hydro power baseload generation. In addition, Vattenfall's continuing operations generate a higher share of regulated revenue from distribution, heat and tendered wind power, which reduces the total risk exposure on the Continent (Germany, the Netherlands as well as the UK). Vattenfall continues to have some price exposure between electricity and used fuel/emissions on the Continent. Such an exposure has a lower risk profile than the outright power exposure in the Nordic countries. The market price risk of Vattenfall's production assets and hedges for electricity, fuel prices and emissions as well as the ancillary trading market price risks are monitored daily.

**VaR levels**

VaR calculation quantifies potential changes in the value of commodity positions as a result of market price movements. The inputs to the VaR calculation are positions (open volumes), current market prices and the variability of prices (volatilities and correlations), all of which are updated daily. The risk limits are designed to prevent maximum loss to exceed SEK 2.5 billion (approximately EUR 244 million), which can be compared to a VaR of EUR 26 million, with a 99% confidence level and a 1-day holding period. Thus, the VaR measures the marked-to-market movement arising from a 1-day change in market prices, under normal market conditions, which should only be exceeded 1% of the time. The VaR levels for Vattenfall NV amount to EUR 1.6 million (1.3).

**Ancillary trading**

In addition to commodity market risk resulting from our assets and sales activities, Vattenfall AB's Board of Directors has given the CEO a risk mandate to allow discretionary risk-taking and trading in the wholesale market. Most of our risk exposure in the ancillary trading portfolio is based on market prices (mark-to-market). In cases where market prices cannot be observed, modelled prices are used (mark-to-model). Mark-to-model positions arise mainly in asset- and sales-related portfolios, see Note 27 to the consolidated accounts, Financial instruments. Management of such valuation models is strictly regulated, and approval is required from the risk organisation before they may be used.

## Volume risk

Volume risk pertains to the risk for deviations between anticipated and actual delivered volume.

### Risk management activities

District heating volumes are managed by improving and developing forecasts for heat consumption. There is a correlation between electricity prices and generated electricity volume. Volume risk also arises in the sales activities as deviations in the anticipated volumes against actual volumes delivered to customers. Here, too, improved monitoring and forecasting capabilities are the most efficient risk management instruments.

## Liquidity risk

Liquidity risk refers to the risk of Vattenfall not being able to finance its capital needs and arises if asset values at maturity do not match those of liabilities and other derivatives.

### Risk management activities

Access to capital and flexible financing solutions are ensured through several types of debt issuance programmes and credit facilities on the level of Vattenfall AB. Vattenfall AB has a defined target for its short-term accessibility to capital. The goal is that funds corresponding to no less than 10% of the consolidated net sales, or the equivalent of 90 days' stressed liquidity needs of the business (whichever is higher) shall be available. As per 31 December 2018, available liquid assets and/or committed credit facilities amounted to 28% (36%) of consolidated net sales. Vattenfall AB is committed to maintaining financial stability, which is reflected in the company's long-term targets for capital structure. On 8 November 2018 Standard & Poor's affirmed Vattenfall AB's long-term BBB+ rating and short-term A-2 rating. On 4 October 2018 Moody's affirmed Vattenfall AB's longterm A3 rating and Baa2 rating for hybrid bonds. The outlook for Vattenfall AB's rating was revised from negative to stable by both Moody's and Standard & Poor's in 2017. Vattenfall foresees a refinancing need in the end of 2019 at the earliest.

**Contractual cash flows**

Vattenfall NV is financed via internal loans and credit facilities. To provide insight into the liquidity risk, the following table shows the contractual terms of the financial obligations (translated at the reporting date rate), including interest payments. The contractual cash flows of non-current assets as well as current assets combined with the internal loans and credit facilities available at Vattenfall AB cover the current need for liquidity as included in the table. The total facilities available at Vattenfall AB amount to EUR 500 million, of which none was utilised.

| | Non-current portion maturity 1-5 years | | Non-current portion maturity >5 years | | Total non-current portion | | Current portion | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **2018** | **2017** | **2018** | **2017** | **2018** | **2017** | **2018** | **2017** | **2018** | **2017** |
| Interest-bearing liabilities | 13 | 13 | 17 | 21 | **30** | **34** | 3 | 306 | **33** | **340** |
| Derivatives | 513 | 314 | – | – | **513** | **314** | 775 | 727 | **1,288** | **1,041** |
| Trade payables and other financial liabilities | – | – | – | – | **–** | **–** | 1,626 | 2,416 | **1,626** | **2,416** |
| **Total** | **526** | **327** | **17** | **21** | **543** | **348** | **2,404** | **3,449** | **2,947** | **3,797** |

### Interest rate risk

Interest rate risk refers to the negative impact of changed interest rates on Vattenfall's income statement and cash flow.

#### Risk management activities

We quantify interest rate risk in our debt portfolio in terms of duration, which describes the average term of fixed interest. The norm duration is based on Vattenfall AB's current financing need and desired interest rate sensitivity in net interest income/expense. Duration is to have a norm of five years with a permissible variation of +2/–1 year. The duration of Vattenfall AB's debt portfolio at year-end was 4.31 years (5.55) including Hybrid Capital.

#### Sensitivity analysis in relation to cash flows for variable interest assets and liabilities

Vattenfall NV is exposed to interest rate risk on its interest-bearing liabilities, see Note 21. A change of 100 basis points in the interest rates as at 31 December 2018 would, assuming all other circumstances remain unchanged, have a pre-tax effect on Vattenfall NV's equity and financial income and expenses of EUR 0 million (-2) on an annual basis.

### Currency risk

Currency risk refers to the negative impact of changed exchange rates on Vattenfall's income statement and balance sheet.

#### Risk management activities

Vattenfall AB is exposed to currency risk through exchange rate movements attributable to future cash flows (transaction exposure) and in the revaluation of net assets in foreign subsidiaries (translation or balance sheet exposure). Currency exposure in borrowing is limited by using currency interest rate swaps. We strive for an even maturity structure for derivatives. Derivative assets and derivative liabilities are reported in Note 27 to the consolidated accounts, Derivative assets and derivative liabilities. We have limited transaction exposure, since most generation, distribution and sales of electricity take place in the respective local markets. Sensitivity to currency movements is therefore relatively low. All transaction exposure that exceeds a nominal value equivalent to SEK 10 million is to be hedged immediately when it arises. The target for hedging translation exposure is to, over time, match the currency composition in the debt portfolio with the currency composition of Vattenfall AB's funds from operations (FFO).

#### Sensitivity analysis in relation to currency risk

Vattenfall NV's exposure to significant currency risks based on nominal values amount to EUR 32 million (-85). This exposure is reduced by derivatives concluded to hedge the currency risk for amount of EUR 38 million (83). The pre-tax effect that a possible increase or decrease in the value of foreign currencies relative to the euro would have, assuming all other circumstances remain unchanged, on Vattenfall NV's financial income and expenses and equity, taking into account the derivatives, amount to EUR 0.7 million (0.2).

### Credit risk

Credit risk can arise if a counterparty cannot or fails to meet its obligations and exists in all parts of Vattenfall's operations.

#### Risk management activities

We have a strict framework for governing and reporting credit risks to ensure that risks are monitored, measured and minimised so that the total credit exposure is kept within Vattenfall AB's risk appetite. The company's credit risk management involves the analysis of its counterparties, reporting of credit risk exposures, contract negotiations and proposals for risk mitigation measures (e.g., obtaining collateral).

## Note 29 Specifications of equity

### Authorised, issued and paid-up share capital

The authorised share capital of Vattenfall NV amounts to EUR 1,500,000,000 consisting of 300,000,000 shares, each with a nominal value of EUR 5 per share. The total number of issued and paid-up shares amounts to 136,794,964 shares totaling a paid-up capital of EUR 683,974,820. All shares are held by Vattenfall.

### Share premium

Share premium consists of the additional paid-up or contributed value to Vattenfall NV.

### Translation reserve

The translation reserve comprises all exchange rate differences arising from the translation of financial reports from subsidiaries that prepare their reports in a currency other than that in which Vattenfall NV reports. The translation reserve is not freely distributable.

### Reserve for hedges

The reserve for hedges comprises mostly unrealised changes in values of commodity derivatives used to hedge future sales (cash flow hedges). The reserve for hedges is not freely distributable.

### Retained earnings including profit for the year

Retained earnings including profit for the year include earned profits in Vattenfall NV and its subsidiaries, associated companies and joint ventures.

## Note 30 Contingent liabilities

As per 31 December 2018 contingent liabilities amounted to EUR 274 million (223). The contingent liabilities mainly consist of capital expenditure commitments regarding property, plant and equipment and intangible assets. The outstanding capital expenditure commitments, which relate mainly to construction in progress, and other purchasing commitments.

### Sales and purchase commitments

Vattenfall NV has concluded a number of long-term purchase contracts with terms varying from 2018 to 2023. In addition, Vattenfall NV has concluded long-term sales contracts on varying terms and conditions. Vattenfall NV enters into energy commodity contracts for the sale and purchase of electricity, oil, gas, coal, biomass and emission allowances. The energy commodity contracts that are held for trading purposes and the energy commodity contracts that are designated as hedging instruments are recognised on the balance sheet at fair value. These contracts are not generally settled by means of physical delivery but by concluding opposite transactions in which only the net cash flows are settled. The energy commodity contracts that are designated for own use are generally settled by physical delivery. The majority of these contracts are also valued at fair value. Hedge accounting is applied where possible. Please refer to Note 28 Financial risks for the liquidity overview, which shows the contractual terms of all financial obligations recognised.

### Contingent liabilities

At the reporting date, Vattenfall NV (including its subsidiaries, associated companies and joint ventures) was involved in a number of legal proceedings and investigations by tax and other authorities. Provisions have been made as far as deemed necessary in accordance with management's estimate and the accounting principles. Vattenfall NV believes that the ultimate resolution of these claims and proceedings will not, in the aggregate, have a material adverse effect on the Company's financial position, consolidated income or cash flows.

At 31 December 2018, the Company has issued bank guarantees and letters of credits amounting to EUR 1 million (1). Vattenfall NV has provided several parent guarantees for its subsidiaries, joint ventures or associated companies, part of which are uncapped. At 31 December 2018, these parent guarantees amounted to EUR 3 million (10).

Vattenfall NV has issued declarations of joint and several liability pursuant to article 403, Part 9, Book 2 of the Dutch Civil code for a number of its subsidiaries. The significant group companies for which such a declaration has been issued are included in the list of subsidiaries, associated companies and joint ventures included in Note 14 Shares and participations of the consolidated accounts. As partners in a number of general partnerships, subsidiaries of Vattenfall NV are liable for the obligations of these partnerships. The exposure under these obligations is not considered to be significant.

Vattenfall NV and the majority of its subsidiaries form a fiscal unity for both corporate income tax and VAT purposes. Consequently, every legal entity forming part of the fiscal unity is jointly and severally liable for the tax liabilities of the legal entities forming part of the fiscal unity.

### Licences

Vattenfall NV has a licence for the supply of electricity, gas and heat and holds licences for constructing certain power and heat facilities.

## Note 31 Number of employees and personnel costs

Number of employees at 31 December, full-time equivalents:

| | 2018 | | | 2017 | | |
|---|---|---|---|---|---|---|
| | **Men** | **Women** | **Total** | **Men** | **Women** | **Total** |
| Netherlands | 2,577 | 822 | **3,399** | 2,628 | 856 | **3,484** |
| Germany | 18 | 1 | **19** | 18 | 1 | **19** |
| **Total** | **2,595** | **823** | **3,418** | **2,646** | **857** | **3,503** |

Average number of employees during the year, full-time equivalents:

| | 2018 | | | 2017 | | |
|---|---|---|---|---|---|---|
| | **Men** | **Women** | **Total** | **Men** | **Women** | **Total** |
| Netherlands | 2,596 | 824 | **3,420** | 2,663 | 857 | **3,520** |
| Germany | 18 | 1 | **19** | 18 | 1 | **19** |
| **Total** | **2,614** | **825** | **3,439** | **2,681** | **858** | **3,539** |

Personnel costs:

| | 2018 | 2017 |
|---|---|---|
| Salaries and other remuneration | 220 | 226 |
| Social security costs | 32 | 35 |
| Pension costs | 29 | 28 |
| **Total** | **281** | **289** |

**Benefits for Management and Supervisory Board members of Vattenfall NV**

| | 2018 | | | 2017 | | |
|---|---|---|---|---|---|---|
| **Amounts in EUR thousands** | **Directors' fees and base salary including vacation pay** | **Other remuneration and benefits** | **Pension and severance costs** | **Directors' fees and base salary including vacation pay** | **Other remuneration and benefits** | **Pension and severance costs** |
| Management Board | 1,538 | – | 33 | 1,432 | – | 67 |
| Supervisory Board | 17 | – | – | 17 | – | – |
| **Total** | **1,555** | **–** | **33** | **1,449** | **–** | **67** |

## Note 32 Related party disclosures

As of 1 July 2015, 100% of Vattenfall NV's shares are owned by Vattenfall AB. Vattenfall AB has a casting vote in the Supervisory Board and qualifies as a related party. Vattenfall NV also conducts transactions with subsidiaries of Vattenfall AB. Furthermore, Vattenfall NV and its subsidiaries have interests in various associated companies and joint ventures over which it exercises significant influence, but no control or only joint control of the operations and financial policy. Transactions with the parties classified as related parties are conducted at market conditions and prices that are not more favourable than the conditions and prices offered to independent third parties.

The following transactions have taken place with related parties with regard to sales and purchases of goods and services, including leases.

| | 2018 | 2017 |
|---|---|---|
| Sales of goods and services to Vattenfall AB and its subsidiaries | 43 | 39 |
| Sales of goods and services to associated companies and joint ventures | 32 | 29 |
| | | |
| Costs charged by Vattenfall AB and its subsidiaries | -52 | -48 |
| Costs charged by associated companies and joint ventures | -3 | -3 |

Various goods and services are bought or provided on normal commercial terms and conditions within Vattenfall AB. A cost-sharing program is in place, which entails that certain costs within the group are recharged to the users within Vattenfall AB based on actual usage. Vattenfall NV, in the ordinary course of business, trades commodities with and via Vattenfall Energy Trading Germany (VET Germany). In the ordinary course of business, Vattenfall NV has outstanding payables and receivables with Vattenfall AB and its subsidiaries (refer to Note 17, Note 21 and Note 24) as well as with its associated companies and joint ventures (Note 15). Vattenfall NV has also granted a limited number of loans to related parties. Where relevant, this has been disclosed in these consolidated accounts.
The members of the management board and supervisory board of Vattenfall NV have been identified as individuals who qualify as related parties. The employee benefits related to these individuals have been disclosed in Note 31.

## Note 33 Events after the balance sheet date

Vattenfall NV has acquired the Dutch electricity and gas sales company Delta Energie and the Dutch IT company Senfal. Delta Energie supplies green electricity and gas to households and small and medium-sized companies, mainly in the Dutch province Zeeland. The company has 120 employees and 170,000 customers. Senfal is a Dutch start-up that offers innovative software services for industry demand side flexibility and renewable generation optimization. Senfal has 22 employees.

On 8 March 2019 the Dutch Government announced that Vattenfall NV's Hemweg-8 power plant in Amsterdam should stop using coal as a fuel for electricity production by the end of 2019. This will mean that the Hemweg-8 power plant will have to stop operating without the previously announced transitional period of 5 years.

# Company accounts

## Company balance sheet

| Amounts in EUR million, before appropriation of result | Note | 31 December 2018 | 31 December 2017 |
|---|---|---|---|
| **Assets** | | | |
| **Non-current assets** | | | |
| Property, plant and equipment | 2 | 29 | 32 |
| Investments in subsidiaries | 3 | 3,151 | 2,920[1] |
| Deferred tax assets | 5 | 2 | 4 |
| Receivables from group companies | 4 | 139 | 149 |
| Other non-current receivables | 5 | 38 | 43 |
| **Total non-current assets** | | **3,359** | **3,148** |
| | | | |
| **Current assets** | | | |
| Trade receivable and other receivables | | 12 | 5 |
| Derivative assets | | – | 1 |
| Receivables from group companies | | 2,806 | 2,672 |
| Cash and cash equivalents | 6 | 13 | 4 |
| **Total current assets** | | **2,831** | **2,682** |
| **Total assets** | | **6,190** | **5,830** |
| **Equity and Liabilities** | | | |
| **Equity** | | | |
| Share capital | | 684 | 684 |
| Share premium | | 2,797 | 2,797 |
| Reserve for cash flow hedges | | – | -2 |
| Translation reserve | | – | -20 |
| Legal reserves | | 436 | 381 |
| Other reserves | | -1,132 | -1,136[1] |
| Unappropriated result for the year | | 211 | 345[1] |
| **Total equity attributable to Vattenfall NV shareholders** | **7** | **2,996** | **3,049** |
| **Provisions** | **8** | **40** | **46** |
| **Non-current liabilities** | | **–** | **–** |
| **Current liabilities** | | | |
| Trade payables and other liabilities | | 155 | 134 |
| Payables to group companies | | 2,999 | 2,600 |
| Derivative liabilities | | – | 1 |
| **Total current liabilities** | | **3,154** | **2,735** |
| **Total equity and liabilities** | | **6,190** | **5,830** |

1) The amount has been restated as a result of the implementation of new IFRS's (IFRS 9 and IFRS 15) which became effective as of 1 January 2018. The implementation of these new IFRS's was applied fully retrospectively. Reference is made to the note 2 to the consolidated accounts which includes a summary of the impact of this on the profit and loss accounts, balance sheet and equity.

## Company income statement

| Amounts in EUR million, 1 January - 31 December | Note | 2018 | 2017 |
|---|---|---|---|
| Result after taxation from subsidiaries | | 209 | 341[1] |
| Other income less expenses after taxation | 10 | 2 | 4 |
| **Result after taxation** | | **211** | **345** |

1) The amount has been restated as a result of the implementation of new IFRS's (IFRS 9 and IFRS 15) which became effective as of 1 January 2018. The implementation of these new IFRS's was applied fully retrospectively. Reference is made to the note 2 to the consolidated accounts which includes a summary of the impact of this on the profit and loss accounts, balance sheet and equity.

# Notes to the company accounts

## Note 1 Accounting policies

The company accounts have been prepared in accordance with the provisions of Part 9, Book 2 of the Dutch Civil Code. In the company accounts, Vattenfall NV uses the option provided for in Part 9, Book 2 of the Dutch Civil Code to prepare the company accounts in accordance with the IFRS accounting policies that are used in the preparation of the consolidated accounts. The company income statement is presented in abridged form, as allowed by section 402, Part 9, Book 2 of the Dutch Civil Code. In addition to the accounting policies for the consolidated accounts, specific accounting policies for the company accounts are presented below.

Vattenfall NV applies the exemption provided for by section 382, Part 9, book 2 of the Dutch Civil Code, that the audit fee does not need to be disclosed. The financial figures of Vattenfall NV are consolidated in the annual report of Vattenfall. In the Vattenfall annual report the total audit fee of Vattenfall, including Vattenfall NV, is disclosed.

**Investments in subsidiaries**
Investments in subsidiaries are valued at net asset value, which is determined on the basis of IFRS accounting policies as used in the consolidated accounts.

**Legal reserve**
A non-distributable legal reserve, in the form of a revaluation reserve, is recognised for unrealised fair value gains on financial instruments that are recognised in income, and for which no frequent market quotations are available (Level 2 and Level 3 financial instruments). With regard to Vattenfall NV, this relates to energy commodity contracts for oil, gas, coal, electricity, biomass and emission allowances that are not traded through recognised exchanges (e.g. Amsterdam Power Exchange, Endex), known as over-the-counter or OTC contracts. A legal reserve of EUR 405 million in total is held for the unrealised fair value movements of these contracts (2017: EUR 348 million), which is calculated on a collective basis.

In addition, a legal reserve participations of EUR 31 million (2017: EUR 33 million) is recognised. The legal reserve participations include the increases in net asset value of joint ventures and associates since their first inclusion, less any amounts that can be distributed without legal restrictions.

## Note 2 Property, plant and equipment

| | 2018 | | | |
|---|---|---|---|---|
| | **Land and buildings** | **Equipment, tools and fixtures and fittings** | **Construction in progress** | **Total** |
| **Cost** | | | | |
| Cost brought forward | 16 | 207 | 11 | 234 |
| Investments | – | 1 | 6 | 7 |
| Transfer from construction in progress | – | 14 | -14 | – |
| Divestments/disposals | –- | – | – | – |
| **Accumulated cost carried forward** | **16** | **222** | **3** | **241** |
| | | | | |
| **Depreciation according to plan** | | | | |
| Depreciation brought forward | -6 | -196 | – | -202 |
| Depreciation for the year | -2 | -8 | – | -10 |
| Divestments/disposals | – | – | – | – |
| **Accumulated depreciation according to plan carried forward** | **-8** | **-204** | **–** | **-212** |
| | | | | |
| **Residual Value according to plan carried forward** | **8** | **18** | **3** | **29** |

| | 2017 | | | |
|---|---|---|---|---|
| | **Land and buildings** | **Equipment, tools and fixtures and fittings** | **Construction in progress** | **Total** |
| **Cost** | | | | |
| Cost brought forward | 16 | 203 | 6 | **225** |
| Investments | – | 1 | 12 | **13** |
| Transfer from construction in progress | – | 5 | -5 | **–** |
| Divestments/disposals | – | -2 | -2 | **-4** |
| **Accumulated cost carried forward** | **16** | **207** | **11** | **234** |
| | | | | |
| **Depreciation according to plan** | | | | |
| Depreciation brought forward | -5 | - 191 | – | **-196** |
| Depreciation for the year | -1 | -7 | – | **-8** |
| Divestments/disposals | – | 2 | – | **2** |
| **Accumulated depreciation according to plan carried forward** | **-6** | **-196** | **–** | **-202** |
| | | | | |
| **Residual Value according to plan carried forward** | **10** | **11** | **11** | **32** |

For further disclosure, reference is made to Note 13 to the consolidated accounts, Property, plant and equipment.

## Note 3 Investments in subsidiaries

| | 2018 | 2017 |
|---|---|---|
| Balance brought forward | 2,920 | 2,085[1] |
| New share issues and shareholders' contributions | – | 700 |
| Withdrawals/Repaid shareholders' contributions | – | 4 |
| Dividends received | – | -150 |
| Share in result | 209 | 341[1] |
| Share in other comprehensive income | 22 | -60 |
| **Balance carried forward** | **3,151** | **2,920[1]** |

1) The amount has been restated as a result of the implementation of new IFRS's (IFRS 9 and IFRS 15) which became effective as of 1 January 2018. The implementation of these new IFRS's was applied fully retrospectively. Reference is made to the note 2 to the consolidated accounts which includes a summary of the impact of this on the profit and loss accounts, balance sheet and equity.

A list of directly and indirectly held participations in subsidiaries is included in Note 14 to the consolidated accounts.

## Note 4 Non-current receivables from group companies

| | 2018 | 2017 |
|---|---|---|
| Balance brought forward | 149 | 881 |
| Loans repaid | -10 | -732 |
| **Balance carried forward** | **139** | **149** |

The effective interest rate on the non-current receivables from group companies was 0.2% (2017: 0.2%).

## Note 5 Deferred tax assets and other non-current receivables

| | 2018 | | |
|---|---|---|---|
| | **Deferred tax assets** | **Other non-current receivables** | **Total** |
| Balance brought forward | 4 | 43 | **47** |
| Loans granted | – | – | **–** |
| Loans and interest repaid | – | -5 | **-5** |
| Temporary differences charged to profit or loss | -2 | – | **-2** |
| **Balance carried forward** | **2** | **38** | **40** |

| | 2017 | | |
|---|---|---|---|
| | **Deferred tax assets** | **Other non-current receivables** | **Total** |
| Balance brought forward | 10 | 47 | **57** |
| Loans granted | – | 1 | **1** |
| Loans repaid | – | -5 | **-5** |
| Temporary differences charged to profit or loss | -6 | – | **-6** |
| **Balance carried forward** | **4** | **43** | **47** |

Other non-current receivables consist of loans and receivables (including incremental costs) with related parties.

## Note 6 Cash and cash equivalents

There was no restricted cash and cash equivalents at the end of 2018 and 2017.

## Note 7 Equity

The Consolidated statement of changes in equity and disclosures to that statement are included in the Consolidated accounts. In addition to the Consolidated statement of changes in equity, a legal reserve was formed within equity for the unrealised gains on OTC contracts for an amount of EUR 405 million (2017: EUR 348 million) and a legal reserve participations of EUR 31 million (2017: EUR 33 million). These legal reserves were charged against the Other reserves. The Reserve for cash flow hedges, Legal reserve and the Currency translation reserve are not freely distributable.

## Note 8 Provisions

| | 2018 | 2017 |
|---|---|---|
| **Balance brought forward** | 46 | 56 |
| Reversed provisions | -11 | -17 |
| Provisions for the period | 16 | 15 |
| Provisions used | -11 | - 8 |
| **Balance carried forward** | **40** | **46** |
| | | |
| Current portion | 16 | 14 |
| Non-current portion | 24 | 32 |

## Note 9 Contingent liabilities

Reference is made to Note 30 to the consolidated accounts Contingent liabilities.

## Note 10 Other income less expenses after taxation

Other income less expenses after taxation was EUR 2 million positive (2017: EUR 4 million positive) and consists mainly of income and expenses of company-wide activities at holding company level.

## Note 11 Number of employees

The average number of employees in 2018 was 480 FTE based on a 38-hour working week (2017: 514 FTE), of which working in foreign countries 8 FTE (2017: 8 FTE).
The employee benefits related to the members of the Management Board have been disclosed in Note 31 to the consolidated accounts, Number of employees and personnel costs.

## Note 12 Events after the balance sheet date

For subsequent events, see Note 33 to the consolidated accounts, Events after the balance sheet date.

## Note 13 Proposed result appropriation

In accordance with the Articles of Association and the dividend policy, the Management Board, after consulting the Supervisory Board, proposes to distribute EUR 164 million to the shareholder and to add EUR 47 million to other reserves.

| | 2018 |
|---|---|
| **Dividend** | |
| Dividend Vattenfall AB | 164 |
| **Total dividend to be distributed** | **164** |
| | |
| Profit after taxation | 211 |
| Dividend proposal: Dividend to be distributed | -164 |
| **Amount to be added to the other reserves** | **47** |

Amsterdam, 28 May 2019

Supervisory Board
Magnus Hall
Anne Gynnerstedt
Jan Haars

Management Board
Peter Smink
Martijn Hagens

# Other Information

## Independent auditor's reports

To: the shareholder and the supervisory board of Vattenfall NV

### Report on the audit of the financial statements 2018 included in the annual report

**Our opinion**

We have audited the financial statements 2018 of Vattenfall N.V., based in Amsterdam. The financial statements include the consolidated financial statements and the company financial statements.

**In our opinion:**

- The accompanying consolidated financial statements give a true and fair view of the financial position of Vattenfall N.V. as at 31 December 2018, and of its result and its cash flows for 2018 in accordance with International Financial Reporting Standards as adopted by the European Union (EU-IFRS) and with Part 9 of Book 2 of the Dutch Civil Code.
- The accompanying company financial statements give a true and fair view of the financial position of Vattenfall N.V. as at 31 December 2018, and of its result for 2018 in accordance with Part 9 of Book 2 of the Dutch Civil Code.

The consolidated financial statements comprise:

- The consolidated statement of financial position as at 31 December 2018.
- The following statements for 2018: the consolidated income statement, the consolidated statements of comprehensive income, changes in equity and cash flows.
- The notes comprising a summary of the significant accounting policies and other explanatory information.

The company financial statements comprise:

- The company balance sheet as at 31 December 2018.
- The company profit and loss account for 2018.
- The notes comprising a summary of the accounting policies and other explanatory information.

**Basis for our opinion**

We conducted our audit in accordance with Dutch law, including the Dutch Standards on Auditing. Our responsibilities under those standards are further described in the "Our responsibilities for the audit of the financial statements" section of our report.

We are independent of Vattenfall N.V. in accordance with the Wet toezicht accountantsorganisaties (Wta, Audit firms supervision act), the Verordening inzake de onafhankelijkheid van accountants bij assurance-opdrachten (ViO, Code of Ethics for Professional Accountants, a regulation with respect to independence) and other relevant independence regulations in the Netherlands. Furthermore we have complied with the Verordening gedrags- en beroepsregels accountants (VGBA, Dutch Code of Ethics).

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

### Report on other information included in the annual report

In addition to the financial statements and our auditor's report thereon, the annual report contains other information that consists of:

- The management report.
- Other information as required by Part 9 of Book 2 of the Dutch Civil Code.

Based on the following procedures performed, we conclude that the other information:

- Is consistent with the financial statements and does not contain material misstatements.
- Contains the information as required by Part 9 of Book 2 of the Dutch Civil Code.

We have read the other information. Based on our knowledge and understanding obtained through our audit of the financial statements or otherwise, we have considered whether the other information contains material misstatements. By performing these procedures, we comply with the requirements of Part 9 of Book 2 of the Dutch Civil Code and the Dutch Standard 720. The scope of the procedures performed is substantially less than the scope of those performed in our audit of the financial statements.

Management is responsible for the preparation of the other information, including the management report in accordance with Part 9 of Book 2 of the Dutch Civil Code and other information as required by Part 9 of Book 2 of the Dutch Civil Code.

### Description of responsibilities for the financial statements

**Responsibilities of management and the supervisory board for the financial statements**

Management is responsible for the preparation and fair presentation of the financial statements in accordance with EU-IFRS and Part 9 of Book 2 of the Dutch Civil Code. Furthermore, management is responsible for such internal control as management determines is necessary to enable the preparation of the financial statements that are free from material misstatement, whether due to fraud or error.

As part of the preparation of the financial statements, management is responsible for assessing the company's ability to continue as a going concern. Based on the financial reporting frameworks mentioned, management should prepare the financial statements using the going concern basis of accounting unless management either intends to liquidate the company or to cease operations, or has no realistic alternative but to do so. Management should disclose events and circumstances that may cast significant doubt on the company's ability to continue as a going concern in the financial statements.

The supervisory board is responsible for overseeing the company's financial reporting process.

**Our responsibilities for the audit of the financial statements**

Our objective is to plan and perform the audit engagement in a manner that allows us to obtain sufficient and appropriate audit evidence for our opinion.

Our audit has been performed with a high, but not absolute, level of assurance, which means we may not detect all material errors and fraud during our audit.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements. The materiality affects the nature, timing and extent of our audit procedures and the evaluation of the effect of identified misstatements on our opinion.

We have exercised professional judgment and have maintained professional skepticism throughout the audit, in accordance with Dutch Standards on Auditing, ethical requirements and independence requirements. Our audit included among others:

- Identifying and assessing the risks of material misstatement of the financial statements, whether due to fraud or error, designing and performing audit procedures responsive to those risks, and obtaining audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtaining an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the company's internal control.
- Evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Concluding on the appropriateness of management's use of the going concern basis of accounting, and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause a company to cease to continue as a going concern.
- Evaluating the overall presentation, structure and content of the financial statements, including the disclosures.
- Evaluating whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

Because we are ultimately responsible for the opinion, we are also responsible for directing, supervising and performing the group audit. In this respect we have determined the nature and extent of the audit procedures to be carried out for group entities. Decisive were the size and/or the risk profile of the group entities or operations. On this basis, we selected group entities for which an audit or review had to be carried out on the complete set of financial information or specific items.

We communicate with the supervisory board regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant findings in internal control that we identify during our audit.

We provide the supervisory board with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

Rotterdam, 28 May 2019
Ernst & Young Accountants LLP

Signed by
A.A. Heij

# Assurance report of the independent auditor

To: the shareholder and the supervisory board of Vattenfall NV

**Our opinion**
We have performed a reasonable assurance engagement on the graphs relating to the Fuel Mix of electricity supplied and/or produced marked with “RA-verified” (hereinafter: the Fuel Mix) in the annual report 2018 of Vattenfall N.V. (hereinafter: Vattenfall NV).

In our opinion, the Fuel Mix is prepared, in all material respects, in accordance with the guidelines of EnergieNed on the calculation method of the Fuel Mix as established in 2004 and prescribed by the Autoriteit Consument en Markt - ACM (hereinafter: the EnergieNed guidelines).

**Basis for our opinion**
We have performed our assurance engagement on the Fuel Mix in accordance with Dutch law, including the Dutch Standard 3000A, “Assurance-opdrachten anders dan opdrachten tot controle of beoordeling van historische financiële informatie (attest-opdrachten)” (Assurance engagements other than audits or reviews of historical financial information (attestation engagements)). Our responsibilities under this standard are further described in the section Our responsibilities in this assurance report.

In assessing the subject matter, we used criteria to evaluate the contents of the Fuel Mix. These criteria are described in the EnergieNed guidelines.

We are independent of Vattenfall NV in accordance with the Verordening inzake de onafhankelijkheid van accountants bij assurance-opdrachten (ViO, Code of Ethics for Professional Accountants, a regulation with respect to independence) and other relevant independence regulations in the Netherlands. This includes that we do not perform any activities that could result in a conflict of interest with our independent assurance engagement. Furthermore, we have complied with the Verordening gedrags- en beroepsregels accountants (VGBA, Dutch Code of Ethics).

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

**Reporting criteria**
The Fuel Mix needs to be read and understood together with the reporting criteria. Vattenfall NV is solely responsible for selecting and applying these reporting criteria, taking into account applicable law and regulations related to reporting.

The reporting criteria used for the preparation of the Fuel Mix are the EnergieNed guidelines.

Limitations to the scope of our assurance engagement

Our assurance engagement is restricted to the Fuel Mix. We have not performed assurance procedures on any other information in the annual report 2018 in light of this assurance engagement. The Fuel Mix is presented in the chapter Operational Performance in the annual report 2018. The data relating to the Fuel Mix on which we provide assurance are labelled as “RA-verified” in the annual report 2018.

The quantification of $CO_2$ emission factors as used in the Fuel Mix is subject to inherent uncertainty due to the designed capability of measurement instrumentation and testing methodologies and incomplete scientific knowledge used in the determination of emissions factors and global warming potentials.

**Responsibilities of the managing board**
The managing board is responsible for the preparation of the Fuel Mix in accordance with the EnergieNed guidelines. The managing board is also responsible for such internal control as the managing board determines is necessary to enable the preparation of the Fuel Mix that is free from material misstatement, whether due to fraud or errors.

**Our responsibilities**
Our responsibility is to plan and perform the reasonable assurance engagement in a manner that allows us to obtain sufficient and appropriate evidence to provide a basis for our opinion.

Our reasonable assurance engagement has been performed with a high, but not absolute, level of assurance, which means we may not have detected all material errors and fraud.

We apply the Nadere voorschriften kwaliteitssystemen (NVKS, Regulations for Quality management systems) and accordingly maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and other relevant legal and regulatory requirements.

We have exercised professional judgment and have maintained professional skepticism throughout the assurance engagement, in accordance with the Dutch Standard 3000A, ethical requirements and independence requirements.

The procedures of our assurance engagement included amongst others:

- Evaluating the appropriateness of the reporting criteria used and their consistent application. This includes the evaluation of the reasonableness of estimates made by the managing board.
- Obtaining an understanding of the systems and processes for collecting, reporting and consolidating the information in the Fuel Mix, including obtaining an understanding of internal control relevant to our assurance engagement, but not for the purpose of expressing an opinion on the effectiveness of the company's internal control.
- Identifying and assessing the risks of material misstatement of the Fuel Mix, whether due to fraud or errors. Designing and performing further assurance procedures responsive to those risks, and obtaining assurance evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from errors, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. These further procedures consisted amongst others of:
    - Interviewing relevant staff responsible for providing the information in the Fuel Mix, carrying out internal control procedures on the data and consolidating the data in the Fuel Mix.
    - Reconciling the overall mix of conventional electricity and the emission factors for import and trade in the Netherlands as published by the ACM with the figures used in the calculation of the Fuel mix.
- Obtaining assurance information that the Fuel Mix reconciles with underlying records of the company.
- Evaluating relevant internal and external documentation, on a test basis, to determine the reliability of the information in the Fuel Mix such as:
  The production of conventional and renewable electricity.
    - Conventional and green electricity (the latter based on Guarantees of Origin from CertiQ) supplied to end customers.
    - Purchased conventional electricity.
    - Imported conventional electricity.
    - Centralized purchased conventional electricity on the APX.
- Performing an analytical review of the data and trends submitted for consolidation at corporate level

Rotterdam, 28 May 2019
Ernst & Young Accountants LLP

Signed by
R.T.H. Wortelboer

# Declaration of Compliance with the Code of Conduct for Suppliers and Metering companies operating under their responsibility

(hereafter: Code of Conduct for energy suppliers and metering companies)

Regarding data available through small-scale consumption metering devices which are read remotely.

Name legal entity: N.V. Nuon Sales Nederland
Statutory place of business: Amsterdam
Period: 1 January 2018 – 31 December 2018

N.V. Nuon Sales Nederland in Amsterdam uses data obtained from small-scale consumption metering devices which are read remotely with the purpose to provide a good performance of its services.

In addition to the Dutch Privacy Act ("Wet bescherming persoonsgegevens"), suppliers and metering companies operating under their responsibility in the Dutch energy sector, set up a Code of Conduct on the use, the capturing, the sharing and the storing of data obtained from small scale consumption measuring devices which are read remotely.

We hereby confirm that N.V. Nuon Sales Nederland in Amsterdam has fully complied with the rules and obligations as set out in the Code of Conduct for energy suppliers and metering companies during 2018.

Name legal entity: Powerpeers B.V.
Statutory place of business: Amsterdam
Period: 1 January 2018 – 31 December 2018

Powerpeers B.V.in Amsterdam uses data obtained from small-scale consumption metering devices which are read remotely with the purpose to provide a good performance of its services.

In addition to the Dutch Privacy Act ("Wet bescherming persoonsgegevens"), suppliers and metering companies operating under their responsibility in the Dutch energy sector, set up a Code of Conduct on the use, the capturing, the sharing and the storing of data obtained from small scale consumption measuring devices which are read remotely.

We hereby confirm that Powerpeers B.V. in Amsterdam has fully complied with the rules and obligations as set out in the Code of Conduct for energy suppliers and metering companies during 2018.

Amsterdam, 28 May 2019

Signed by
Martijn Hagens

# Annual Statement 2018 in the framework of the Heat Act

**Introduction**

Heat supply company N.V. Nuon Warmte (Nuon Warmte) is part of the energy production and supply company Vattenfall NV.

**Shareholders as at 31 December 2018**

The shares of Nuon Warmte are fully owned by Vattenfall Energy Sourcing Netherlands N.V., a 100% subsidiary of Vattenfall NV. From 1 July 2015 the Swedish state-owned Vattenfall AB owns 100% of the shares of Vattenfall NV.

**Supply areas**

Nuon Warmte manages and operates large-scale heat networks in the provinces Gelderland, Flevoland, Noord-Holland and Zuid-Holland.

**License**

Based on the Heat act, heat suppliers are required to register heating networks with the Authority Consumer & Market (ACM) and apply for a permit for the supply of heat at the ACM. On 8 March 2016 the permit has been granted by the ACM.

**Tasks**

The tasks of Nuon Warmte, which are based on the Warmtewet 2014 (Heat act) and underlying ministerial regulations and decisions, have a regulated character and include: The distribution and delivery of heat to consumers with a connected load of up to 100kW at a legally established maximum price; ensuring the safety and reliability of the networks and connections.

**Annual statement**

This annual statement has been prepared based on the Heat act and the underlying ministerial regulations and decisions, which require to prepare separate financial information for each heat supply company as per 1 January 2014. Furthermore, these regulations require heat supply companies to publish an annual statement of their financial information. With this annual statement Nuon Warmte endorses this obligation.

The accounting policies and principles used in the annual statement are in accordance with the 2018 financial statements of Vattenfall NV and only includes the financial information of the operation of Nuon Warmte to which the regulation of the Heat act applies; as Nuon Warmte also supplies non-regulated heat (supply of heat to consumers with a connected load capacity above 100kW). Nuon Warmte uses several allocation keys to allocate the total costs of Nuon Warmte to the regulated and non-regulated supply of heat. Variable purchase costs are allocated to the regulated and non-regulated activities based on the relative number of GJ sold to both customer groups. Fixed purchase costs and other costs are allocated based on the relative number of connections or the relative capacity of the connections.

The financial position and performance of Nuon Warmte have been included in the consolidated financial statements of Vattenfall NV. EY has issued an audit opinion on the consolidated financial statements of Vattenfall NV (see page 58). Based on Article 2 403 BW Nuon Warmte is exempted from publishing independent financial statements. In relation to this, a liability statement as referred to in Article 2: 403 BW, is filed at the Dutch Chamber of Commerce.

**Financial information for 2018**

The tables below represent the financial information for 2018, as far as it concerns the regulated supply of heat (heat to consumers with a connected load of up to 100kW).

### Income statement heat-supply

| Amounts in EUR million, 1 January - 31 December | 2018 | 2017 |
|---|---|---|
| Heating revenue | 110.8 | 101.7 |
| Amortisation construction contributions | 6.6 | 6.0[1] |
| Other net sales | 37.5 | 34.5 |
| **Net sales** | **154.9** | **142.2** |
| Cost of purchases | -41.4 | -42.7 |
| Other external expenses | -66.8 | -61.1 |
| Personnel expenses | -20.3 | -15.4 |
| Other operating incomes and expenses, net | -0.2 | -3.7[1] |
| **Operating profit before depreciation, amortisation and impairment losses (EBITDA)** | **26.2** | **19.3** |
| Depreciation | -13.8 | -12.7 |
| **Operating profit (EBIT)** | **12.4** | **6.6** |

### Balance sheet information heat-supply

| Amounts in EUR million | 31 December 2018 | 31 December 2017 |
|---|---|---|
| Property, plant and equipment | 308.0 | 299.8[1] |
| Construction contributions | -159.7 | -146.9[1] |

[1]) 2017 figures of profit and loss for customers in regulated sector have been adjusted to account for rectification of the allocation model used in 2017. The impact on EBIT is positive EUR 0.9 million.

**Explanation to the income statement**

| Amounts in EUR million, 1 January - 31 December | 2018 | 2017 |
|---|---|---|
| **Breakdown of heating revenue** | **110.8** | **101.7** |
| a1. Heat consumption | 61.3 | 54.3 |
| a2. Hot water consumption | 6.2 | 6.2 |
| b1. Fixed fee heat supply and metering services | 28.1 | 25.4 |
| b2. Delivery kit | 15.2 | 15.8 |
| **Breakdown of cost of purchases** | **-41.7** | **-42.7** |
| Variable heat purchase costs | -19.9 | -17.3 |
| Fixed heat purchase costs | -20.2 | -23.6 |
| Cold water purchase costs | -0.9 | -1.2 |
| Electricity purchase costs | -0.7 | -0.6 |
| **Supplies** | | |
| Amount of heating supplied in GJs | 3,165,980 | 2,969,033 |
| Number of connections (<100 kW) | 118,505 | 113,966[1] |
| Amount of hot water supplied in m³ | 1,180,061 | 1,223,559 |
| **Purchase** | | |
| Purchased heat in GJ | 4,759,004 | 4,380,090 |
| Purchased cold water in m³ | 1,180,061 | 1,248,030 |
| **Purchase contracts according to Heat Act article 8** | **14** | **13** |
| Vattenfall Power Generation B.V. | Production and transport of heat | Production and transport of heat |
| Stichting VU (also known as VU Amsterdam) | Production of heat | Production of heat |
| N.V. Nuon Warmte afdeling Generation Operations | Production of heat | Production of heat |
| N.V. Nuon Duurzame Energie | Production of heat | Production of heat |
| AVR Afvalverwerking B.V. | Production of heat | Production of heat |
| Eneco Warmte en Koude Leveringsbedrijf B.V. | Production and transport of heat | Production and transport of heat |
| Veolia Industriediensten B.V. | Production of heat | Production of heat |
| ARN B.V. | Production of heat | Production of heat |
| Indigo B.V. | Transport of heat | Transport of heat |
| Bio-Energie de Vallei B.V. | Production of heat | Production of heat |
| Bio-Warmte de Vallei B.V. | Transport of heat | Transport of heat |
| Primco BMC Lelystad B.V. | Production of heat | – |
| Warmtebedrijf Infra N.V. (also known as Warmtebedrijf Rotterdam) | Production and transport of heat | Production and transport of heat |
| Uniper Benelux N.V. | Production of heat | Production of heat |

Nuon Warmte conducts transactions with subsidiaries of Vattenfall NV for the purchase of heat. Transactions with the parties classified as related parties are conducted at market conditions and prices that are not more favourable than the conditions and prices offered by independent external third parties. The transaction price for the purchase of heat from related parties is determined semi-annually in advance, based on forecasted commodity prices and related plant utilisation. The list with purchase contracts includes the significant subsidiaries Nuon Warmte has transactions with. In addition Nuon Warmte receives internal charges for services delivered by related parties within the Vattenfall group.

Nuon Warmte performs construction activities and exploitation services for third parties. Revenues and costs related to these activities are part of the presented income statement as 'Other net sales' and 'Other external expenses'. The margin resulting from the work for third parties is part of the regulatory activities and contributes to the coverage of overhead expenses.

# Profit appropriation

Profit appropriation is governed by the Articles of Association of Vattenfall NV, which state that dividends shall be distributed with due observation of the dividend policy and that the dividend policy shall be discussed with the General Meeting of Shareholders.

**Dividend policy**

Vattenfall NV's dividend policy stipulates the following:

- The basis for dividend distribution shall be the net profit, adjusted for significant non-cash fair value movements on financial instruments;
- The remaining profit after taking into account the adjustments/pay out in point 1 above – is available for distribution to the Shareholder (Vattenfall AB), but this is subject to:
    - A gearing ratio (Interest Bearing Debt/(Interest Bearing Debt + Total Equity) of no more than 50%. This ratio is based on the guidance of S&P and Moody's as the maximum for investment grade companies.
    - Fulfilment of financial restrictions in Vattenfall NV's financial documentation (i.e. covenants).
    - Sufficient sustainable cash position over the next 12 months as proven by the long term cash forecast of Vattenfall NV.
    - Adequate liquidity lines available to Vattenfall NV.