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Outlook for 2018

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### Dear reader

Our operating environment is undergoing major changes. There is an understanding that energy production must become cleaner. At the same time, competition is intensifying in all market segments where Eesti Energia operates: even our last regulated activity – distribution service – is increasingly facing competition.

To remain resilient and competitive in our operating environment, we update Eesti Energia's strategic action plan on an annual basis. In 2017, we also carried out structural streamlining to better implement a strategy aimed at delivering growth and cleaner energy. We divided the company into five business lines which all contribute to the achievement of our targets: Large-scale Energy Production, Renewable Energy, Network Services, Customer Services and Development.

### Competitive Large-scale Energy Production

The main challenge in Large-scale Energy Production is maintaining the competitiveness of our existing production assets. The more efficient and cleaner our energy production, the higher the assurance that we can use our existing energy production assets until the end of their expected useful lives. This is the most cost-effective way for society to change over to technologies that have a smaller environmental footprint.



HANDO SUTTER I Chairman of the Management Board

We have been moving towards more efficient and cleaner energy production for years already, investing in new technologies and improving our older production facilities by installing state-of-the-art pollution control equipment. Our efforts have borne fruit: studies reflect that air in Estonia, including Ida-Viru county where most of our production assets are located, is among the cleanest in Europe. Furthermore, the Estonian Ministry of the Environment recently recognised Eesti Energia as the company with the most environmentally friendly production process.

In 2017, we began solving a major environmental issue. In Estonia over 10,000 tonnes and in Europe even more than 3 million tonnes of old tyres are scrapped every year. In 2017, we began turning old tyres into energy in our Iru waste-to-energy plant. During the year,

we also carried out different tests on old tyres at our oil plants which reflected that on the co-use of old tyres and oil shale, emissions to air remain within permitted limits and the quality of oil produced does not deteriorate. Next, we will prepare documentation together with the Ministry of the Environment to specify the conditions on which old tyres are no longer classified as waste but as raw material. After that we can start using old tyres for oil production.

Last year we also succeeded in improving the efficiency of oil shale mining. At the Estonia mine, we began using the efficient longwall mining technology at full capacity. This helps to keep the cost price of oil shale competitive and has also increased our oil shale output – during the year we extracted from our Estonia mine and Narva opencast 16 million tonnes of oil shale, 19% more than in 2016. Moreover, our Estonia mine, which recently celebrated its 45th anniversary, set a new production record, achieving an annual oil shale output of around 10 million tonnes. This is an exceptional result, taking into account that the mine's original designed capacity is almost half smaller. At the same time, we invested in safety: we supplied the Estonia underground mine with a mobile communication network. In addition to improving safety, mobile communication helps make mining processes smarter.

### Growing Renewable Energy Production

Eesti Energia has the most diverse electricity portfolio in the Baltic Sea area: we produce electricity from oil shale as well as wind, water, municipal waste and biomass. In 2017, we passed a new milestone and added solar energy to our portfolio. Eesti Energia's strategy foresees that by 2021 the share of electricity produced from renewable and alternative sources should increase to 40% of

total electricity output. The key deliverer of this ambitious strategy will be Enefit Green, a subsidiary established in 2016. Our growth plan foresees expanding production in Estonia as well as in other markets where Eesti Energia is already operating. The management board of Eesti Energia has received a mandate to raise capital on the stock exchange in order to implement the renewable energy growth strategy.

### Expansion of Electricity Sales Operations to Poland, Finland and Sweden

We have decided to make rapidly developing technology and big data analytics work for our customers. In other words, our strategic objective is to offer our customers innovative energy solutions and to do it in a considerably larger home market than before. In 2017, we made substantial progress in this area.

In 2017, Eesti Energia grew from an electricity supplier operating in the Baltic region into an energy and energy services supplier operating in the Baltic Sea area. We began selling electricity and natural gas in Poland. We became the second-largest natural gas supplier in the Latvian gas market which was deregulated in the summer and in the last months of the year we launched gas sales in Lithuania. Thus, in Latvia and Lithuania we are no longer just an electricity supplier but an energy supplier.

At the end of the year, we set up subsidiaries in Finland and Sweden where we will launch retail sales of electricity in the first half of 2018. In Latvia, Lithuania, Poland, Sweden and Finland we offer energy solutions under the Enefit brand and our offering is based on smart e-solutions.

### Distribution Service is Changing

What is contemporary high-quality distribution service like? Previously, it was believed that centralised production is definitely more competitive than micro or off-grid production. Today in many locations the concept does not apply. New and competitive technologies have enabled consumers to become electricity producers and to sell excess amounts of their self-produced electricity via the distribution network. This sets new requirements to the electricity network. In simple terms, previously electricity moved basically in one direction: from the producer to the consumer. Now, the network also accepts electricity from consumers. To support this development, we have made connecting to the network easier for micro producers and have started offering them turnkey solutions, which let customers focus on their core activities while Eesti Energia takes care of their energy-related matters.

In 2017, Elektrilevi, the Group's distribution network operator, took important steps in developing its non-regulated services. In this area, the biggest achievement of 2017 was the win of a procurement for managing the street lighting network of the city of Tartu. Elektrilevi has already been managing the street lighting network of the city of Tallinn since 2015. Thanks to its extensive know-how and competence, Elektrilevi has the potential to develop into the most efficient infrastructure operator in the Baltic Sea area that can offer efficient and smart street lighting, telecommunication, and electricity network management services. Mostly efficiency growth enabled us to lower network charges twice in 2017: from July by around 6.7% and from November by 2.3%.

## Investments in Electricity Distribution Quality and Cleaner Energy Production

In 2017, our capital expenditures totalled 144 million euros, 2% up on 2016. Over half of this amount, that is 75 million euros, was invested in the electricity network. Through consistent and extensive investment, we have achieved that 64% of Elektrilevi's network is now weatherproof. Compared to five years ago, the number of supply interruptions has decreased twofold. We will continue to improve our distribution network to be able to provide our customers with reliable high-quality distribution service.

In Large-scale Energy Production, one of the most important investments was the reconstruction of generating unit 8 of the Eesti power plant. After the work carried out in the second half of the year, the unit can use oil shale gas to the extent of 50% compared to previous 13%. Using less oil shale and more oil shale gas, which is a by-product of shale oil production, helps reduce the environmental impacts of oil shale-based electricity production. In the first half of 2018, Foster Wheeler, which did the reconstruction work will carry out the necessary adjustments and tests. Delivery of the project to Eesti Energia has been scheduled for summer 2018. Last year, we invested 10 million euros in this project. The total budget of the project is 15 million euros.

Although the Auvere power plant has been producing electricity since May 2015, General Electric has not yet delivered it to Eesti Energia. In 2016, it appeared that at high operating capacities the plant's particle emissions exceeded the regulatory limit. To solve the problem, in 2017 General Electric built new fabric filters for the power plant. After the installation of the fabric filters, the plant's

particle emissions are below the regulatory limit even when it operates at maximum capacity. Delivery of the plant to Eesti Energia has been scheduled for the second quarter of 2018.

## 2.1 Billion US Dollar Financing for Our Electricity Project in Jordan

Eesti Energia's oil shale processing competencies are unique in the world. In 2017, there was an important landmark not only for Eesti Energia but for whole of Estonia – we reached financial close for our oil shale power plant and mine project in Jordan. This 2.1 billion US dollar project is the world's largest one-off investment in oil shale energy and the largest foreign investment in the Kingdom of Jordan. Reaching a successful financial close for a project of such a scale reflects that we have sufficient competencies for developing similar technology transfer projects anywhere in the world and that Estonia has know-how that is needed elsewhere in the world.

### Eesti Energia Delivered Production and Revenue Growth

In 2017, Eesti Energia produced 9,736 gigawatt hours of electricity, 7% more than in 2016. Our renewable energy output rose to 404 gigawatt hours, a 6% increase on the year before. Our shale oil output reached 395,000 tonnes, a 24% improvement on 2016 and the largest ever annual shale oil output for Eesti Energia.

The Group's revenue and other income totalled 811 million euros. Revenue amounted to 754 million euros, 2% up on 2016. EBITDA for the year amounted to 264 million euros, 19% less than in 2016. In 2016, EBITDA was strongly increased by liquidated damages of

69 million euros payable by General Electric. Net profit for 2017 amounted to 101 million euros.

The year 2018 is likely to be interesting and busy. The short-term outlook for energy markets is slightly better than we forecasted in the third quarter of 2017. The world market prices of oil products have reached levels which were last seen in 2014. This has encouraged us to revisit the plans of building a new oil, electricity and gas coproduction plant based on Enefit technology. We have not yet made an investment decision. However, it is clear that the future of oil shale energy is based on clean and efficient technology. It is also important to expand our renewable energy portfolio and gain customers' trust in our new energy supply markets.

All the activities we have planned can only be carried out with the help of the professional and dedicated people of Eesti Energia. This has also been noticed outside the organisation – for several years Eesti Energia has been elected Estonia's best preferred employer.

I thank Eesti Energia's dedicated team for their hard work and commitment

HANDO SUTTER

Chairman of the Management Board of Eesti Energia





Eesti Energia is a company which operates in the Baltic Sea electricity and gas markets and in the international fuel market. The owner of Eesti Energia is the Republic of Estonia.

We have the most diverse energy portfolio in the Baltic Sea region: we produce energy from oil shale, biomass, tyre chips, municipal waste, wind, sun and water. We use oil shale to produce liquid fuels – shale oil and oil shale gasoline as well as electricity and heat.

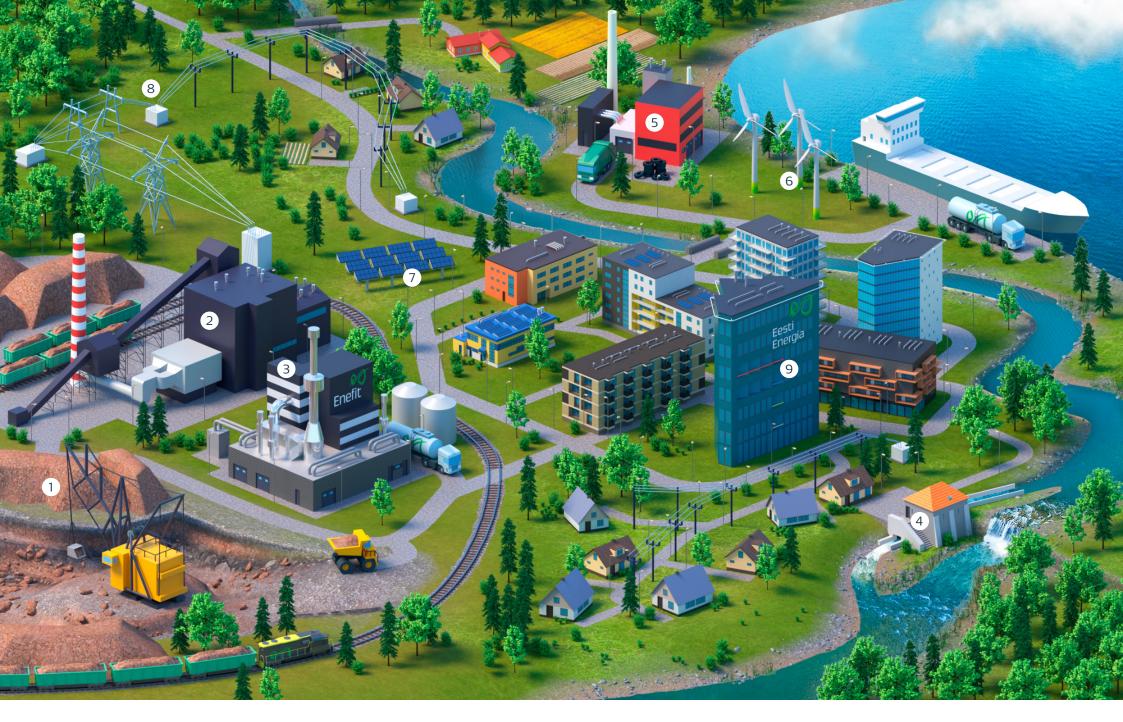
We consistently enhance our products and services and develop new solutions to make our production processes more efficient.

We sell electricity in the Baltic and Polish retail markets and in the Nord Pool whole-sale market, natural gas in the Estonian, Latvian, Lithuanian and Polish retail markets and liquid fuels in the international wholesale market. We are starting electricity sales in Finland and Sweden. We offer smart energy solutions and associated services to both household and corporate customers.

Eesti Energia's subsidiary Elektrilevi is the largest distribution service provider in Estonia.

Eesti Energia group has five key business lines: Large-scale Energy Production, Renewable Energy, Network Services, Customer Services, and Development. We employ 5,807 people.





- 4. Hydro power plant
- 5. Cogeneration plants
- 6. Wind farms
- 7. Solar power plants
- 8. Electricity distribution network

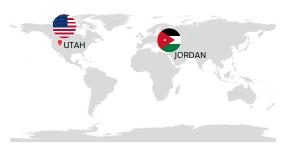
### Eesti Energia's production units



### HOME MARKETS IN ENERGY SALES BUSINESS



### EESTI ENERGIA'S DEVELOPMENTS



### **KEY FIGURES AND RATIOS**

		2013	2014	2015	2016	2017
Total electricity sales*, of which	GWh	11,368	9,137	7,698	8,956	9,364
Wholesale sales*	GWh	4,271	3,125	1,823	2,760	3,161
Retail sales	GWh	7,097	6,012	5,875	6,196	6,203
Electricity distribution	GWh	6,280	6,294	6,337	6,616	6,757
Shale oil sales	'000 tonnes	208	231	315	302	370
Heat sales	GWh	1,021	1,063	1,018	1,148	986
Average number of employees	No.	7,314	6,792	6,289	5,696	5,708
Revenue	m€	966.4	880.0	776.7	742.1	753.9
EBITDA	m€	310.5	312.3	265.8	327.3	264.2
	m€	175.5	186.1	57.2	183.9	128.4
Operating profit						
Net profit	m€	159.5	159.3	40.5	171.0	100.8
Capital expenditures	m€	418.9	275.9	245.6	140.7	144.0
Cash flow from operating activities	m€	244.6	228.2	307.7	200.3	268.8
FFO	m€	263.4	203.2	239.6	278.1	227.3
Non-current assets	m€	2,368.3	2,509.7	2,552.5	2,550.6	2,550.3
Equity	m€	1,574.7	1,619.5	1,571.9	1,698.0	1,763.9
Net debt	m€	744.3	834.7	792.0	716.6	582.4
N / FRITRA		2.4	2.7	2.0	2.2	2.2
Net debt / EBITDA	times	2.4	2.7	3.0	2.2	2.2
FFO / net debt	times	0.35	0.24	0.30	0.39	0.39
FFO / interest expense on borrowings	times	7.9	5.5	6.4	7.7	6.6
EBITDA / interest expense on borrowings	times	9.3	8.5	7.1	9.0	7.7
Leverage	%	32.5	34.0	33.5	29.7	24.8
ROIC	%	8.6	8.1	2.4	7.8	5.5
EBITDA margin	%	32.1	35.5	34.2	44.1	35.0
Operating profit margin	%	18.2	21.1	7.4	24.8	17.0

<sup>\*</sup> Due to a change in the policy for reporting sales volume, from 2015 the figure includes the Auvere power plant's total sales volume (the Group's revenue does not include the Auvere power plant's variable electricity production costs and electricity sales revenue to the extent that these have been capitalised).

### Highlights of the Year

During the year, WE GREW FROM AN ELECTRICITY SUPPLIER OPERATING IN THE BALTICS INTO AN ENERGY SUPPLIER OPERATING IN THE BALTIC SEA REGION – we now sell electricity and gas in Estonia, Latvia, Lithuania and Poland

We reached financial close for a 2.1 billion dollar OIL SHALE PROJECT



WE LAUNCHED
A GASOLINE
REFINING PLANT
which is going to
improve the quality
of our oil shale
gasoline

We devised our renewable energy strategy and put together a team for ENEFIT GREEN, the subsidiary delivering the strategy

WE LOWERED
THE ELECTRICITY
DISTRIBUTION
CHARGE twice
during the year,
by 9% in aggregate

**NETWORK** 

**SERVICES** 

CUSTOMER SERVICES

We established energy sales companies in FINLAND AND SWEDEN DEVELOPMENT

We signed THE FIRST ELECTRICITY SALES CONTRACTS WITH ENERGY INTENSIVE BUSINESSES interested in moving into our technology parks LARGE-SCALE ENERGY PRODUCTION

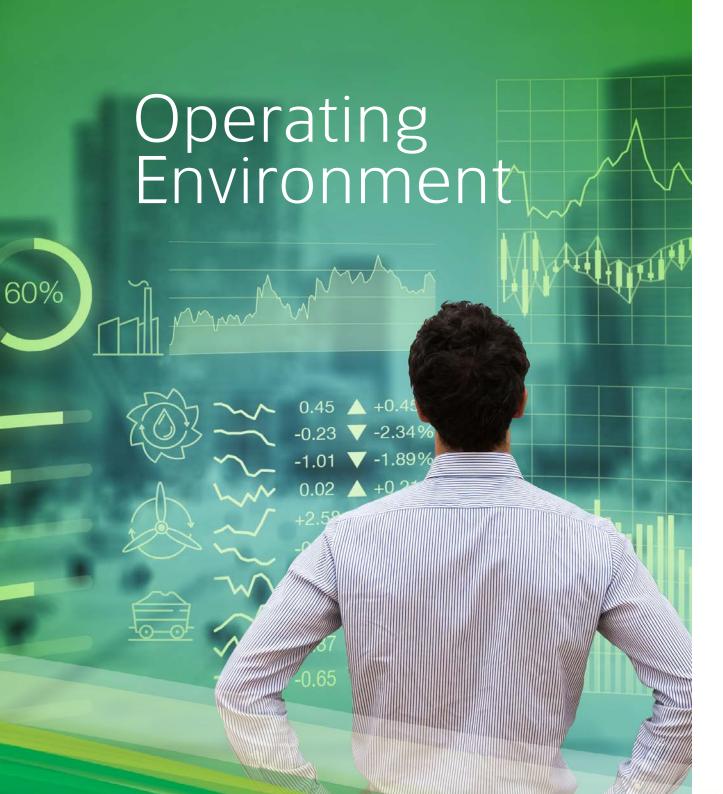


We set a new production record in our Estonia mine by EXTRACTING 10 MILLION TONNES OF OIL SHALE PER YEAR

RENEWABLE ENERGY



WE SET UP OUR FIRST SOLAR POWER PLANT at the Estonia dairy farm based in Järva county In addition to the street lighting system of Tallinn, WE ALSO BEGAN MANAGING THE STREET LIGHTING SYSTEM OF TARTU and now operate 40% of all the street lighting networks in Estonia



Eesti Energia's operations and performance are influenced by various global and regional factors, including oil, electricity and emission allowance prices, competition in the customer services market, the euro exchange rate and regulations.

### IN 2017, THE FOLLOWING MARKET DEVELOPMENTS AFFECTED US THE MOST:

- electricity transmission connections between the Baltic and the Nordic countries lowered Baltic electricity prices, which led to price convergence in the Baltics;
- the world market prices of oil products surged to the past two years' highest level, which improved our liquid fuels' sales margins;
- in the second half of the year emission allowance prices rose, which increased our energy production costs.

According to estimates from the International Monetary Fund in 2017 the global economy grew by 3.7% and according to data from the Estonian central bank in 2017 the Estonian economy grew by 4.5%.

### Nordic and Baltic Electricity Market

Estonia is a member of the Nord Pool power exchange where electricity producers sell the electricity they have produced and electricity suppliers purchase electricity in order to resell it to their customers.

The electricity markets of Estonia and its neighbouring countries are well connected via interconnectors. Therefore, Estonia's electricity production and prices are influenced, among other factors, by water levels at Norwegian hydro power plants and wind conditions in Denmark.

In 2017, the Nordic and Baltic countries produced

418.9 TWh and consumed 412.7 TWh of electricity

In 2017, the Nordic and Baltic countries produced 418.9 TWh and consumed

### **NORWAY**

Consumption 132.9 TWh
Production 148.2 TWh
Average price\* 28.6 €/MWh

#### **SWEDEN**

Consumption 138.1 TWh
Production 158.5 TWh
Average price\* 31.3 €/MWh

### DENMARK

Consumption 32.4 TWh
Production 28.0 TWh
Average price\* 31.0 €/MWh

412.7 TWh of electricity. Sweden, Norway, Estonia and Latvia produced more than they consumed while Finland, Denmark, Poland and Lithuania could not cover their needs with domestic output and had to import electricity.

#### **FINLAND**

Consumption 83.4 TWh
Production 63.3 TWh
Average price\* 33.2 €/MWh

#### **ESTONIA**

Consumption 8.3 TWh
Production 11.1 TWh
Average price\* 33.2 €/MWh

#### LATVIA

Consumption 7.2 TWh
Production 7.3 TWh
Average price\* 34.7 €/MWh

### LITHUANIA

Consumption 10.4 TWh
Production 2.5 TWh
Average price\* 35.2 €/MWh

### **POLAND**

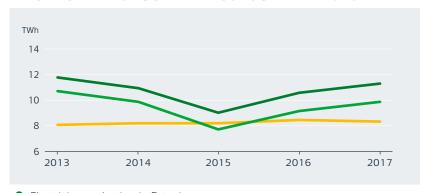
Consumption 168.4 TWh Production 152.1 TWh Average price\* 37.3 €/MWh

## TOTAL Nord Pool Consumption 412.7 TWh Production 418.9 TWh

# Estonia is an Electricity Exporter

Estonia is the most energy independent country in the European Union. In 2017, Estonia produced 11.1 TWh of electricity, 2.8 TWh more than it consumed. Around one quarter of Estonia's total electricity output was exported via the Nord Pool power exchange. In 2017, Eesti Energia's contribution to Estonia's electricity production was 88%, i.e. 9.7 TWh, which exceeded Estonia's consumption by 1.4 TWh.

#### ELECTRICITY PRODUCED AND CONSUMED IN ESTONIA



- Electricity production in Estonia
- Eesti Energia's electricity production
- Electricity consumption in Estonia

Source: Nord Pool



## Baltic Electricity Prices are Increasingly Influenced by Electricity Imports from the Nordic Countries

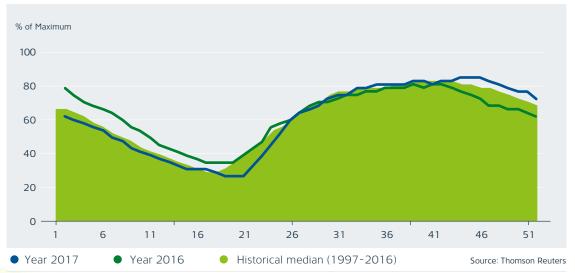
In 2017, electricity prices in Estonia and the neighbouring countries were influenced by a rise in electricity trade in the region. The NordBalt interconnector between Sweden and Lithuania, which was launched in 2016, operated for the full year.

Interconnectors deliver to the Baltics Nordic hydro power, which is cheaper than electricity produced from other sources. Due to low precipitation, in 2017 the average level of the water reservoirs was 61.8% of the maximum, i.e. 2.8 percentage points lower than in 2016, which increased electricity prices year on year. In the summer, electricity prices were also strongly influenced by the prices of  $\mathrm{CO}_2$  emission allowances because in Europe the output of nuclear

power plants, which were undergoing seasonal maintenance, was replaced by coal power. A rise in the production of coal power increased demand for emission allowances which in turn pushed up electricity prices.

In 2017, the average electricity price in the Estonian price area was 33.2 €/MWh. The average monthly price was the highest in September, when a megawatt hour cost 37.7 euros, and the lowest in March, when a megawatt hour cost 30.3 €/MWh. In 2017, the historical price gap between the Finnish and the Estonian price areas narrowed: the average electricity price in Estonia was only 0.03 €/MWh higher than in Finland.

#### WEEKLY LEVELS OF NORDIC WATER RESERVOIRS





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#### AVERAGE MONTHLY ELECTRICITY PRICES



Electricity import from the Nordic countries has reduced the Latvian and Lithuanian electricity prices. In 2017, average electricity prices in the Latvian and Lithuanian price areas were 34.7 €/MWh (1.4 €/MWh down from 2016) and 35.2 €/MWh (1.4 €/MWh down from 2016) respectively.

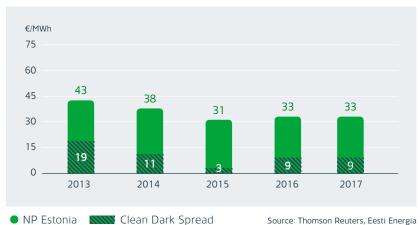
The development of the Baltic electricity prices is also influenced by the activities of the Polish transmission system operator which imposes cross-border transmission restrictions. Hence, the Polish, Swedish and Lithuanian transmission system operators have agreed to create a virtual bidding area on the Polish electricity market. In hours when electricity consumption is high, transmission of cheaper electricity from Sweden to Lithuania and other Baltic countries is restricted and in hours when electricity consumption is lower transmission of electricity from Sweden to Poland is restricted. As a result, cheaper electricity is transmitted from Sweden to the

Baltics in hours when electricity consumption is lower. This reduces Eesti Energia's opportunities to sell electricity on the power exchange. The European Commission is evaluating the policy's compliance with the rules of the European electricity market.

Electricity price in Nord Pool's Estonian price area also influences the development of Eesti Energia's clean dark spread (CDS). In 2017, Eesti Energia's clean dark spread was 9.0 €/MWh (+0.3 €/MWh, +3.8% compared to 2016). Electricity price increased by 0.2 €/MWh year on year. The combined impact of a change in CO<sub>2</sub> and oil shale costs was +0.2 €/MWh.

Clean dark spread reflects an electricity producer's estimated profit margin, which remains after fuel and CO<sub>2</sub> emission allowance costs have been deducted from the average market price of electricity.

### EESTI ENERGIA CLEAN DARK SPREAD (CDS) IN NP ESTONIA ELECTRICITY



# Liquid Fuels Prices Surged to the Past Two Years' Highest Level

In the first half of 2017, the price of Brent crude oil dropped. The lowest price of the year was measured in June when it was 45.9 USD/bbl. The decline was mainly attributable to an upswing in the US oil rig count: in June the number of rigs in operation was 931 compared to 683 in January.

In the second half-year, the price of Brent crude rose. In December, the average price was 64.8 USD/bbl, the highest average monthly price since May 2015. The price increase was underpinned by a decline in oil production. Namely, at the end of 2016 OPEC members and 10 non-OPEC producers agreed to cut oil production from January 2017 by 1.8 million barrels per day. The agreement will apply until the end of 2018.

In 2017, the average price of Brent crude oil was 54.1 USD/bbl, i.e. significantly higher than in 2016 (+25.0%, +10.8 USD/bbl).

### LIQUID FUELS PRICES

AVERAGE PRICE	2017	2016	Change
Brent crude oil U	ISD/bbl <b>54.1</b>	43.3	+25.0%
Fuel oil (1% sulphur content) €	<b>270.8</b>	195.0	+38.9%
Euro exchange rate E	EUR/ USD 1.1300	1.1070	+2.1%

A widely-traded oil product, which is closest to our shale oil, is fuel oil with 1% sulphur content. The price of fuel oil depends mainly on the price of Brent crude oil. Rises in crude oil and fuel oil prices

#### **BRENT CRUDE OIL**



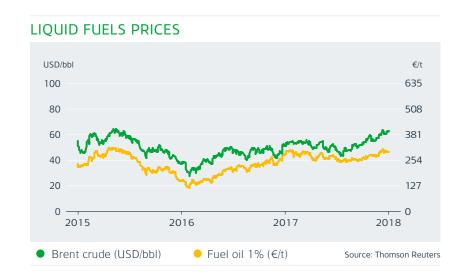
Source: Thomson Reuters

Rises in crude oil and fuel oil prices have a positive impact on Eesti Energia because they raise the price of our shale oil and thus increase our revenue

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In the first half of 2017, the European fuel oil market was characterised by strong local demand and good export opportunities to Asia. This kept the fuel oil price higher than the oil price. In the second half of the year, local demand and export opportunities to Asia decreased. As a result, the fuel oil price rose less than the price of Brent crude in the same period. Asia is the main market for fuel oil with 1% sulphur content produced in Europe. When export opportunities to Asia are limited, European fuel oil inventories increase and the price in the local market drops.

In 2017, the average price of fuel oil (1% sulphur content) was 270.8  $\in$ /t, 38.9% (75.9  $\in$ /t) up on 2016. Similarly to the oil price, the fuel oil price was the lowest in June when it was 247.5  $\in$ /t. The price of fuel oil was the highest in November when it was 298.4  $\in$ /t.





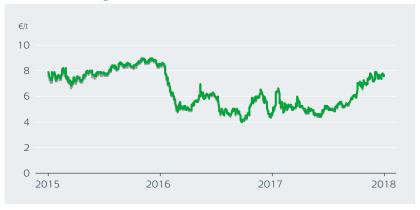
# Emission Allowance Prices Rose in Anticipation of the EU Emissions Trading System Reform

The higher the price of emission allowances, the higher our electricity production costs, which has a negative impact on our financial performance.

In 2017, the average price of  $CO_2$  emission allowance futures maturing in December 2017 was 5.7  $\in$ /t, i.e. 5.2% (0.3  $\in$ /t) up on 2016.

In the second half-year, the prices of  $CO_2$  futures rose in anticipation of a reform of the EU Emissions Trading System, surging to 7.6  $\in$ /t on average in November.

### PRICES OF CO<sub>2</sub> EMISSION ALLOWANCES



Price for December 2017 futurePrice for December 2018 future

Source: Thomson Reuters

### CO<sub>2</sub> EMISSION ALLOWANCE PRICES

AVERAGE PRICE (€/T)	2017	2016	Change
CO <sub>2</sub> December 2017	5,7	5,4	+5,2%
CO <sub>2</sub> December 2018	5,9	5,5	+7,7%



## Eesti Energia Contributes to the Fulfilment of both the EU and the Paris Climate Agreements

The United Nations Climate Change Conference held in Paris in 2015 (COP 21) agreed to adopt measures for slowing climate warming. The agreement has a major impact on the energy sector.

A total of 197 countries, including Estonia, undertook to contribute to implementing the agreement.

The heads of the EU countries agreed the EU's long-term climate targets in October 2014, i.e. before the Paris Climate Conference. In many respects, these targets are more ambitious than those agreed in Paris.

We integrated the EU climate targets into Eesti Energia's strategy already before the Paris Agreement. Year by year our production operations have become cleaner. We have achieved this by implementing new technologies and investing hundreds of millions of euros in contemporary pollution control equipment.

### The four key targets OF THE PARIS CLIMATE AGREEMENT are as follows:

- to halt growth in CO<sub>2</sub> emissions as soon as possible and achieve a balance between sources and removers of greenhouse gases in the second half of the 21st century
- to limit global warming to below 2 degrees Celsius and pursue efforts to limit the temperature increase to 1.5 degrees Celsius
- to review achievements every five years and make more ambitious pledges for each next period
- to provide financial assistance to developing countries for fighting climate change



Eesti Energia offers well-designed energy solutions which are based on modern technologies and the most diverse energy portfolio in the Baltic Sea area in which renewables play an increasing role.

We review Eesti Energia's strategic focus points on annual basis to assess how changes in our operating environment influence our goals and targets. The main factors which influence the development of the energy sector are related to changes in the regulatory environment, technological developments and competition in the energy and customer markets. In designing our strategy, we take all of them into account.





"Our operating environment keeps changing at an ever-increasing speed. Our goal is to remain competitive in the energy sector. Consistent realisation of IT opportunities is a key tool for achieving our goals not only in production and network and customer services but also in people management."

### AGNES ROOS Head of Business and Information Technology Service

At the Annual IT Management Conference Agnes Roos was elected the Most Influential IT Manager of the Year

# Organisation That Supports Implementation of the Strategy

To successfully implement our strategic action plan, we have streamlined Eesti Energia's organisational structure and divided the Group's activities into five business lines: Large-scale Energy Production, Renewable Energy, Network Services, Development and Customer Services. The new structure supports achievement of our ambitious strategic targets.

### EESTI ENERGIA'S GROUP'S ACTIVITIES INTO FIVE BUSINESS LINES:

LARGE-SCALE ENERGY PRODUCTION

RENEWABLE ENERGY

**NETWORK SERVICES** 

**DEVELOPMENT SERVICES** 

**CUSTOMER SERVICES** 

### Large-scale Energy Production

The Large-scale Energy Production business line comprises controllable energy production assets which are related to mining, electricity and oil production and related asset management. In addition to oil shale, our Large-scale Energy Production entities can produce energy from alternative fuels such as biomass, peat, oil shale gas and tyre chips.

#### THE ENTITIES OF THIS BUSINESS LINE ARE

ENEFIT KAEVANDUSED (MINING) ENEFIT ENERGIATOOTMINE (ENERGY PRODUCTION) ENEFIT SOLUTIONS



### Renewable Energy

The Renewable Energy business line consists of the renewable energy company **ENEFIT GREEN** 

which has the most diverse renewables portfolio in the Baltic Sea region

### **ENEFIT GREEN PRODUCES ENERGY FROM**



### **Network Services**



The emergence of off-grid power generation technologies has also created competition for our network operator Elektrilevi which is mainly involved in regulated business. In addition to electricity distribution, Elektrilevi can competitively offer other network services that need the same kind of infrastructure such as street lighting, telecommunication and electric car charging. Strong competence and synergies between different infrastructures allow us to offer customers and society effective and cost efficient infrastructure services.

### **Customer Services**



We operate in six home markets

ESTONIA, LATVIA, LITHUANIA, POLAND, FINLAND AND SWEDEN

Modern energy services are tightly related to IT solutions. We strive to be an energy partner that creates value for the customer by offering complete state-of-the-art solutions in all markets where we operate. Our focus is on product development and improving our customer services.

### Development

The Development business line develops major projects which have the strongest impact on the Group's five-year.

Such projects include, for example, developing the Enefit technology and technologies aimed at improving the quality of our liquid fuels. We are also exploring additional opportunities for using oil shale and the potential of using alternative fuels such as old tyres in fuel production. We export our technology development competencies to other countries interested in producing oil shale energy efficiently and sustainably.

Besides internal partners, the Development business line works closely with Estonian universities, research institutions and other external partners. To attract and identify innovative business opportunities systematically, we have created an ideas bank which by the end of 2017 included over 600 potential business opportunities. We welcome proposals and ideas from both inside and outside the organisation to ideed@energia.ee.



### Eesti Energia's strategic projects in 2017

### **FOCUS**:

- Existing Production Assets
- Ensuring the Future of Oil Shale Energy
- Creating New Renewable Energy Capacities
- Growing in New Electricity and Gas Sales Markets in the Baltic Sea Area
- Selling Elektrilevi's Non-Regulated Services

### **FOCUS**

- Existing Production Assets
- Increasing the Use of Oil Shale Gas

We are going to rebuild generating unit 8 of the Eesti power plant by 2018 so that up to 50% of the plant's oil shale fuel can be replaced by oil shale gas, which is a by-product of oil production. The project will help to reduce the environmental impacts and increase the profitability of our electricity production operations and compete more successfully with Nordic electricity producers. Further information about capital investments made in the

project in 2017 is provided in the Investment chapter (see page 97).

We are planning to supplement our oil plants with a plant for extracting gasoline from oil shale gas. This should increase our liquid fuels output by 10%, double the output of our most valuable shale oil product – oil shale gasoline and increase the profitability of our oil production operations. In 2017, we continued procurement activities for signing an Engineering, Procurement and Construction contract and in the third quarter received the bids. We expect to make an investment decision in the first half of 2018. If the decision is positive, the plant should be completed by the end of 2020.



"Strategy gives our efforts direction."
At Eesti Energia, we have people whose focused activity and right mindset, day in and day out, help meet our targets and adapt to external change, because we are agile."

**LAURI ULM**Development Unit, New Energy Project
Manager

Silver award in the category "My efforts count"

### • Bringing Consumption to Production

For fuller and more stable utilization of our production capacities, we offer large consumers an opportunity to connect to a power plant via a direct line. This will enable them to minimise their transmission charges and, thus, save around a third of their electricity costs. The direct line concept suits entities such as data centres where electricity costs account for more than half of the service price.

In 2017, we launched a new product: Enefit technology parks. The concept allows us to offer large consumers electricity near our production units, which is highly cost effective for the customer.

At the end of the year, we began developing two technology parks: one in Harju county near the Iru power plant (the Iru technology park) and the other one in Ida-Viru county near the Balti power plant (the Narva technology park). We signed contracts with the first customers of the Narva technology park in the second half of 2017.

### Participating in Statistical Transfers

We wish to sell statistical units of renewable energy in the European Union's statistical transfer market where countries that have already achieved their renewable energy target for 2020 can transfer statistical units of renewable energy to countries that cannot meet their target.

Estonia has already met its overall renewable energy target. Therefore, Eesti Energia can offer quickly, flexibly and at a competitive price biomass electricity and heat produced at its newest circulating fluidised bed generating units (the Auvere power plant and generating unit

Estonia has already met its overall renewable energy target 11 of the Balti power plant) to other EU member states interested in statistical transfers. These generating units can be fuelled by biomass (to the extent of 50%).

The realisation of the plan is supported by the European Commission's permission for granting state aid, issued at the end of 2017, which confirms that our installations' participation in statistical transfers is lawful

### Implementing Data-based Management at Our Production Companies

We are implementing data-based management in the framework of Industry 3.5, a programme for digitising our production entities.

In 2017, we carried out the project Balance & Efficiency, which was named Eesti Energia's Digital Solution of the Year. The outcome of the project allows us to calculate our power plants' efficiency factors and deviations from operating parameters in real time. This enables us to analyse the plants' efficiency more precisely and to make more accurate offers to the power exchange. We also began digitising our mining entities' asset management process.

In addition, we launched a logistics management project so that in the future our fuel supply chain could be monitored and measured in real time and a project for digitising our asset management which is aimed at optimising the time and cost of maintenance operations.

### Efficient Management Structure

At the end of 2017, we implemented a new management system to better integrate our different objectives and more clearly assign roles and areas of responsibility. In Eesti Energia's renewed organisational structure, the Group's operations are divided into five business lines: Large-scale Energy Production, Renewable Energy, Network Services, Development and Customer Services.

Based on their functions and objectives, all business units were divided into result-, content- and support-oriented units. Result-oriented

Based on their functions and objectives, all business units were divided into result-, content-and support-oriented units

units are the key implementers of our strategic goals. Content-oriented units contribute to the achievement of strategic goals with their competencies and know-how. Support-oriented units ensure appropriate operating policies and an environment that helps achieve the goals and targets which have been set as smoothly as possible.

We streamlined the arrangement and governance of our production entities' asset management operations and transferred most of relevant competencies to Group entity Enefit Solutions. Asset management plays an essential role in improving the operational reliability of our production entities and ensuring the competitiveness of Large-scale Energy Production as well as in the development of the cost price of energy. Uniform governance allows us to manage our asset management competencies more effectively.

### **FOCUS**

- Ensuring the Future of Oil Shale Energy
- Expanding Co-production of Oil, Electricity and Gas

Estonian mineable oil shale reserve exceeds a billion tonnes. According to the owner's expectations, Eesti Energia must ensure the sustainability of oil shale energy in the next 30 years with a focus on higher-value products such as shale oil.

To achieve this, we have started preparations for expanding the co-production of oil, electricity and gas. We will be ready to make an investment decision on the construction of Enefit282 in the first half of 2019 when the long-term outlook for liquid fuels prices needs to be reassessed.



### • Building the Narva Underground Mine

In the Narva opencast we are reaching an area with a thicker overburden. From a certain thickness of overburden, the costs of underground mining are lower than those of opencast mining. To maintain mining costs at an optimal level, the Narva underground mine must be opened by 2023 at the latest. In the new mine, we are planning to use the longwall/harvester technology whereby oil shale losses and environmental impacts are as small as possible.

### Selling Development Services

Eesti Energia's oil shale processing competencies are unique in the world

We offer our expertise and know-how in oil shale development projects outside Estonia. Eesti Energia's oil shale processing competencies are unique in the world. In 2017, there was an impor-

tant landmark not only for Eesti Energia but also the whole of Estonia – we reached financial close for our oil shale power plant and mine project in Jordan. This 2.1 billion US dollar project is the world's largest one-off investment in oil shale energy and the largest foreign investment in the Kingdom of Jordan. Reaching a successful financial close for a project of such a scale reflects that we have sufficient competencies for developing similar technology transfer projects anywhere in the world and that Estonia has know-how that is needed elsewhere in the world

Eesti Energia has also proven competencies in turning municipal waste into energy, carrying out large-scale renewable energy projects and implementing off-grid solutions for which there is growing demand in many parts of the world.

### **FOCUS**



### Tootsi Wind Farm

To increase the share of renewable energy in Eesti Energia's portfolio, in 2011 we began to develop the Baltic region's largest wind farm on the depleted Tootsi Suursoo peat extraction site.

In 2016, the government decided to transfer the Tootsi property to Eesti Energia by increasing Eesti Energia's share capital with a non-monetary contribution. Based on the decision, Eesti Energia began construction work at Tootsi. However, the government's decision was challenged. After that the government decided to arrange an auction but that decision was also challenged.

If Eesti Energia succeeds in acquiring the property at auction, we are ready to continue building the Tootsi wind farm.

The Tootsi wind farm could accommodate up to 52 modern turbines. It could meet the energy needs of an area equal to Pärnu county, boost Estonia's renewable energy production and give value to the abandoned peat extraction site.

In line with the Group's strategic action plan, in the next few years Enefit Green will also increase the Group's renewable energy production in other countries of the Baltic Sea region which are currently Eesti Energia's energy sales markets. We see the strongest

We see the strongest expansion potential in the field of wind and solar energy

expansion potential in the field of wind and solar energy but are also considering investing in cogeneration. We already produce renewable energy in Valka, Latvia (from biomass). The government has agreed in the coalition agreement that a minority stake in Enefit Green would be listed on the stock exchange. However, the final decision has not yet been made.

### Taking Production to Consumption

We launched a turnkey solar energy solution which allows the consumer to fix the electricity price for decades. The consumer saves on network charges and does not have to deal with equipment maintenance. In 2017, we signed the first solar energy production contract with OÜ Estonia, a dairy farm based in Järva county. A solar power plant with a capacity of 174 kW built on the roof of the farm covers around 15% of the farm's annual electricity consumption and most of its summer consumption. Under the new solution, the



plant is owned and serviced by Group entity Enefit Green and the solar power produced by it is used by the agriculture company at a fixed price for self-consumption. Eesti Energia's goal is to build solar power plants with a total capacity of at least 50 MW by 2021.

### **FOCUS**

0

Growing in New Electricity and Gas Sales Markets in the Baltic Sea Area

Our goal is to grow from an electricity supplier operating in the Baltic countries into an energy supplier operating across the Baltic Sea region by 2021

Our goal is to grow from an electricity supplier operating in the Baltic countries into an energy supplier operating across the Baltic Sea region by 2021. By the end of 2017 we had entered into the Polish energy supply market and had set up our energy sales

companies in Finland and Sweden, where we are planning to launch retail sales in 2018. We see strong potential in gas sales.

### **FOCUS**



### Selling Elektrilevi's Non-Regulated Services

The electricity network can be used for a lot more than simply delivering electricity. Hence, Elektrilevi is diversifying into areas where our competencies in managing infrastructure similar to the electricity network create cost savings for consumers and the whole society. By integrating different infrastructures we can create more efficient

solutions than by building and maintaining each infrastructure separately.

An example of joint management of different infrastructures is street lighting. Elektrilevi has been managing the street lighting system of the city of Tallinn for several years and in 2017 also began managing the street lighting system of the city of Tartu. Altogether, Elektrilevi manages and maintains around 40% of Estonia's street lighting networks.

An important milestone of 2017 was the development of a new off-grid solution. Elektrilevi's innovative product, which consists of solar panels, a battery and a generator, offers consumption points far from the network a solution which is faster, more favourably priced and more practical than the creation of an ordinary network connection. We believe that our new off-grid solution also has sales potential in other countries.

### IN SHORT,

our strategic objectives for 2021 are as follows:

- to increase the capability to produce energy from different energy sources
- to increase the share of renewable and alternative energy in our energy portfolio to 40%
- to be a successful energy supplier and customer service provider in the Baltic Sea area
- to increase the production of liquid fuels
- to implement digital solution that increase efficiency and management quality and support flexible customer solutions
- $\bullet$  to implement the strategy using the labour resource of Ida-Viru county

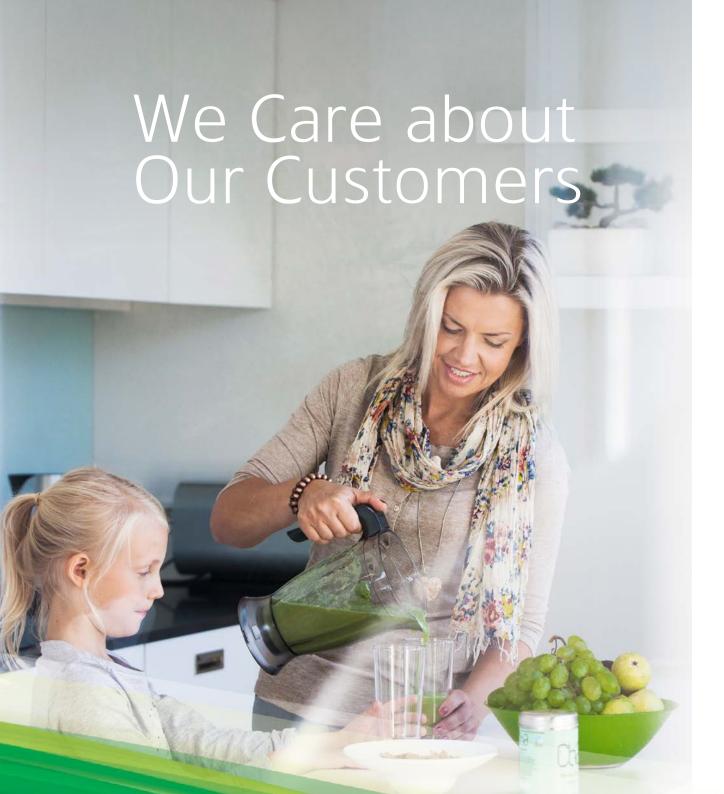


"Elektrilevi is focused on realising the full potential of its network. Thanks to decades of experience we can offer society benefits and efficiencies with infrastructure solutions that go beyond the electricity network. We want to lead the way with innovations that are milestones for the whole of Europe."

#### TAAVO RANDNA

Member of the Management Board of Flektrilevi

Golden award in the category "Value adding"



From 2017, we sell electricity and natural gas in the retail markets of four countries: Estonia, Latvia, Lithuania and Poland. In Estonia, we serve both household and corporate customers, in other countries we currently focus on corporate customers. In the first half of 2018, we are planning to launch retail sales of electricity to household customers in Finland and Sweden. In Sweden, we are also going to provide services to corporate customers.

Daily interaction with the end-consumers of our products and services sets high targets to our customer service.

Customers can contact us by phone or email. Our convenient online self-service solution that works on different smart devices is currently available only in Estonia but we are also going to implement it in our other home markets. First, contemporary e-services will be made available in Finland, Sweden and Latvia and then in Lithuania and Poland

# Customer Satisfaction Continues to Be High

In partnership with the international research agency Kantar Emor, we carry out regular customer satisfaction surveys: in Estonia every year, in Latvia and Lithuania every other year. In Estonia the survey covers both household and corporate customers, in Latvia and Lithuania only corporate customers. We are planning to conduct our first customer satisfaction surveys in Poland, Finland and Sweden at the beginning of 2019.

The purpose of a customer satisfaction survey is to measure customer satisfaction, i.e. customer relationship strength, obtain

feedback on the work done during the year and find out what we should change in our offering and service process to retain customers and their satisfaction. In addition, the survey provides information about the competitive situation.

In 2017, the survey carried out in Estonia reflected that within a year the customer relationship index TRI\*M had increased for household customers

In 2017, the survey carried out in Estonia reflected that within a year the customer relationship index TRI\*M had increased for household customers (from 62 to 68), had remained stable for corporate customers (at 67) and had increased for large corporate customers (from 73 to 74). 60% of our Estonian household and corporate customers are willing to share their positive experience. The survey carried out in Latvia reflected that compared to 2015, our Latvian customers' satisfaction had increased considerably: the TRI\*M index had risen from 66 to 78, placing us among the highest rated energy companies. 72% of our Latvian customers are willing



"Energy selling is a challenging job because everybody needs energy but it cannot be bought from the shop like bread. Energy market developments are quite a headache for customers but they know that Enefit is an expert in the energy business. In 2017 we launched gas sales in Latvia and grew into the no. 2 supplier on the market. This is the best example of how highly customers appreciate us. I love my job because I know that the success of many Latvian companies depends on me."

### **EDGARS CVETKOVS**

Customer Manager at Enefit SIA, the Group's Latvian energy selling entity

Golden award in the category "My efforts count"

to recommend us. Our Lithuanian' customers satisfaction has also increased noticeably: in 2015 our TRI\*M index was 50 but in 2017 it was 77. Thus, we are among the highest rated energy suppliers also in Lithuania.

According to our customers in Estonia, Latvia and Lithuania, our main strengths are the size of the company which provides assurance, competent and friendly service and energy efficiency consulting.



### Convenient E-Services

Estonia is a world leader in the use of e-services. Estonian citizens can conduct almost all their transactions with the state

We, too, offer our Estonian customers smooth, convenient and largely digitised customer service

online. We, too, offer our Estonian customers smooth, convenient and largely digitised customer service. Without leaving home or using paper, customers can use Eesti Energia's e-services to conveniently sign electricity or gas contracts, change power plans, check electricity and gas prices, pay bills, give authorisations and track consumption. Contracts with the distribution

network operator Elektrilevi can also be easily signed using Elektrilevi's e-services.

Based on experience gained in Estonia, we are going to offer e-customer service solutions in all the markets where we sell, or are soon going to sell, energy, i.e. besides Estonia also in Latvia, Lithuania, Poland and from 2018 in Finland and Sweden.

### Internationally Recognised Mobile App Helps Save Energy and Money

In a mobile app electricity consumption information, electricity contracts, bills and our contacts are easily and conveniently accessible regardless of the time or the customer's location

From 2017, the app can be used not only by our Estonian household customers and Elektrilevi's universal service customers but also by our Estonian corporate customers

The number of active monthly users is approaching 24,000



For further information, see: www.energia.ee/app.

In a mobile app developed by Eesti Energia, electricity consumption information, electricity contracts, bills and our contacts are easily and conveniently accessible regardless of the time or the customer's location. From 2017, the app can be used not only by our Estonian household customers and Elektrilevi's universal service customers but also by our Estonian corporate customers. The number of active monthly users is approaching 24,000. In the near term, we are going to make the app available to our customers in other markets.

Since the end of 2016, all of Elektrilevi's customers have been supplied with hourly smart meters that provide for remote reading. This enables consumers to plan their consumption. Eesti Energia's mobile app shows the next day's expected market price of electricity and customers who purchase electricity at the market price can adjust their consumption, for example by plugging in their

appliances when the electricity price is the lowest. Customers who purchase electricity at a fixed price can use the app to monitor and analyse their consumption and identify possible cost savings. Every kilowatt-hour saved has a direct impact on the electricity bill. Well-planned electricity consumption may lower the bill by up to 20%.

Our mobile app has also gained international recognition. In 2017, the fifth World Government Summit held in Dubai awarded Eesti Energia's mobile app the title of Best M-Service in the environment category. Also, at the end of last year the British journal Capital Finance International recognised our mobile app with the 2017 Best Energy-Saving App Baltics Award. The award is granted for creating innovative IT services and solutions that appreciate customers' convenience.

## Consumption of Green Energy

Our customers can choose what kind of electricity they wish to consume. For example, they may opt for green energy which is produced from renewable sources only. In 2017, the number

In 2017, the number of green energy contracts in the Estonian market tripled

of green energy contracts in the Estonian market tripled. At the year-end, 10,045 households and around 500 corporate customers in Estonia were using electricity produced from renewable sources only.

In Latvia, 11 companies have chosen our green energy solution. In 2017, their total annual consumption extended to 15.78 GWh. In Lithuania, companies consuming green energy are eligible to excise exemption. Therefore, renewable energy is popular among corporate customers.

In 2017, 355 Lithuanian companies with a total annual consumption of 33.61 GWh had signed up for our green energy solution.

Altogether, in 2017 our Estonian, Latvian and Lithuanian customers consumed

190 GWh of green energy

Altogether, in 2017 our Estonian, Latvian and Lithuanian customers consumed 190 GWh of green energy.

During the year, we produced 403.7 GWh of renewable energy of which 214.9 GWh from wind, 184.4 GWh from biomass and waste and 4.4 GWh from water.

Customers can sign up for green

energy when they sign or change their electricity contract. Corporate customers that consume green energy may use our green energy trademark in their marketing activities.

DURING THE YEAR, WE PRODUCED

403.7 GWh OF RENEWABLE ENERGY



214.9 GWh



184.4 GWh



4.4 GWh

# High-quality Network Service

The most important objective of the Group's distribution network operator Elektrilevi is to provide high-quality network service because this is key to customer satisfaction. Elektrilevi delivers electricity to 93% of Estonians. To reduce power outages as vigorously as possible, Elektrilevi invests continuously in making its network increasingly more weather-resistant. In 2017, the subsidiary installed 1,572 km of network and modernised 221 substations. The corresponding figures for 2016 were 2,699 km of network and 253 substations.

In 2017, the company also installed a significant amount, i.e. approximately 1,565 km of overhead cables in rural areas. Insulated overhead lines are much more effective in preventing outages than regular bare conductor lines. The share of weatherproof lines in Elektrilevi's network has grown to 62%. The target is to increase the share to 75% by 2025. In 2017, there were 12,131 unplanned interruptions in Elektrilevi's network, 28% less than in 2016. In the past five years, the number of unplanned interruptions has decreased approximately two times.

By 2017, our extensive smart meter installation project had been completed. Smart metering reduced the number of customer contacts by 6,000 compared to 2016 and by around fivefold compared to five years ago.

Since 2017, all electricity suppliers operating in Estonia have been able to submit a single bill for both electricity and distribution charges. Thanks to a development carried out on the initiative of Elektrilevi, Estonia is one of the first countries in Europe where a large share of electricity consumers receive a single bill. By the end of 2017, the convenient single bill solution had been implemented at 73% of all of Elektrilevi's metering points.

### IN 2017, THE SUBSIDIARY INSTALLED

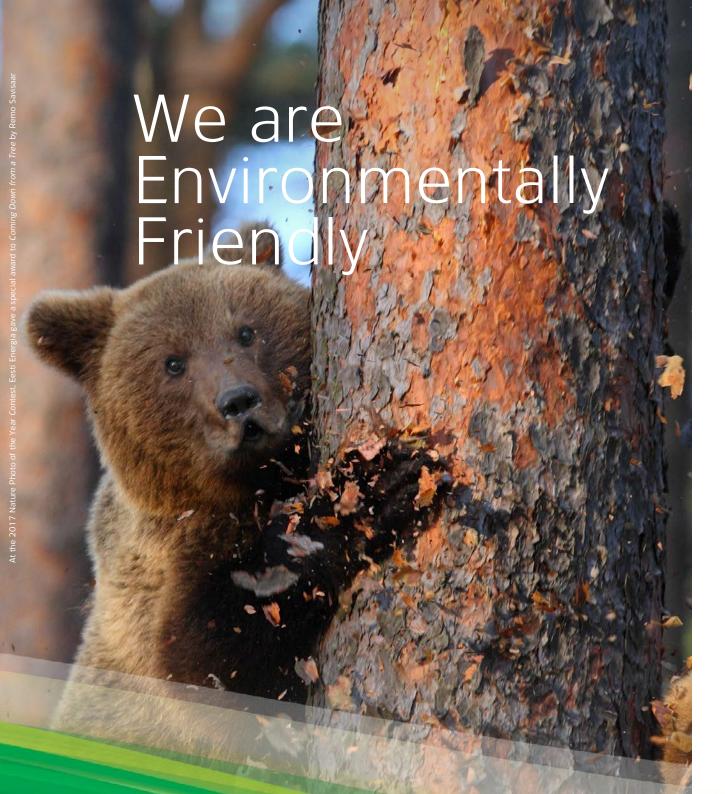
1,572 km of network and

modernised 221 substations

The company also installed a significant amount, i.e. approximately

1,565 km of overhead cables in rural areas





Energy producers invest increasingly in making their operations cleaner and more sustainable and to expand the use of renewable energy sources. Eesti Energia has set itself the same strategic objectives.

Our production operations comply with all environmental requirements of the European Union because in recent decades we have made substantial investments in the environmental sustainability of our production units. Thanks to that we have been able to significantly reduce the environmental impacts of our production operations.

In the Environmental Deed competition 2017, the Ministry of the Environment gave Eesti Energia an award for the most environmentally friendly production processes in Estonia

In the Environmental Deed competition 2017, the Ministry of the Environment gave Eesti Energia an award for the most environmentally friendly production processes in Estonia. We were recognised for building an underground sediment basin in the Estonia mine and finding opportunities for using the by-products of Large-scale Energy Production – ash – in agriculture and road construction

### OUR ENVIRONMENTAL POLICY

Eesti Energia's systematic environmental activities are underpinned by the following principles which make up our environmental policy:

- We use an environmental management system, which complies with international standards: ISO 14001 and the EU Eco-Management and Audit Scheme (EMAS).
- We observe all Estonian, EU and international environmental regulations, conventions and agreements which apply to our operations.
- We carry out preliminary analyses of the environmental impacts of our activities and reduce them through technological solutions and innovation as well as by improving efficiency and reusing materials.
- We reduce the CO<sub>2</sub>-intensity of the energy we produce.
   To achieve this, we diversify our energy portfolio and use renewable sources of energy in combination with the best possible technology in technologically and economically appropriate volumes.
- We are open to new solutions and work closely with both Estonian and international research institutions and consulting companies to achieve our environmental objectives.
- In conducting procurement tenders, where other conditions are comparable, we prefer bidders that have a certified environmental management system and use sustainable technologies and materials.

## We Built an Ambient Air Monitoring Station



Together with the Environmental Investment Centre we built a permanent ambient air monitoring station in Vaivara parish (from 2018: Narva-Jõesuu parish) which at the beginning of 2017 was integrated into Estonia's national online monitoring sta-

tions network. The Sinimäe station, installed between Auvere and Vaivara, allows us to monitor and analyse how our power and oil facilities affect air quality in the region.

We can also assess how other nearby companies that have an impact on the environment affect air quality. The budget of the project was 221,304 euros, of which 50%, i.e. 110,652 euros was covered with support from the Environmental Investment Centre

The monitoring station measures the content in ambient air of the main compounds that influence air quality such as carbon dioxide, benzene and hydrogen sulphide. In addition, the station measures the direction and speed of wind, humidity and temperature, which are relevant to managing air quality and evaluating its influencers. Since the

beginning of the measuring period, the station has not identified any significant excesses of pollution limits, which reflects that we are able to meet regulatory requirements.

As odour nuisances may arise even when concentrations remain below permitted limits, we work systematically to reduce the risk. Accordingly, in 2017 we modernised flares and the oil shale dryer's cooling system at our Enefit140 oil plant. In addition, we built a new finished goods tank that meets contemporary requirements. All these measures have significantly reduced emissions that may cause odour nuisances.

The data of the national monitoring stations network is available at www.ohuseire.ee/en.



# We Built 50 km of Water Pipelines in Parishes Affected by Oil Shale Mining

In line with its resource extraction permits, our mining entity Enefit Kaevandused builds alternative water supply systems for households located in areas affected by oil shale mining. Due to technological reasons, mining influences the natural water regime and may lower the water level in shallower drinking water wells. Together with local governments we have found solutions that secure the supply of high-quality drinking and domestic water to people living in mining areas.

In 2017, we built around 50 km of water pipelines and 9 bore wells in the Illuka

Together with local governments we have found solutions that secure the supply of high-quality drinking and domestic water to people living in mining areas

and lisaku parishes. The projects provided over 150 consumers, including the Illuka nursery and middle school and the Illuka Community Centre, with access to clean drinking water. The wells are up to 130

### IN 2017, WE BUILT AROUND

50 km of water pipelines

and 9 bore wells in the Illuka and Iisaku parishes

The projects provided over

150 consumers, with access

to clean drinking water





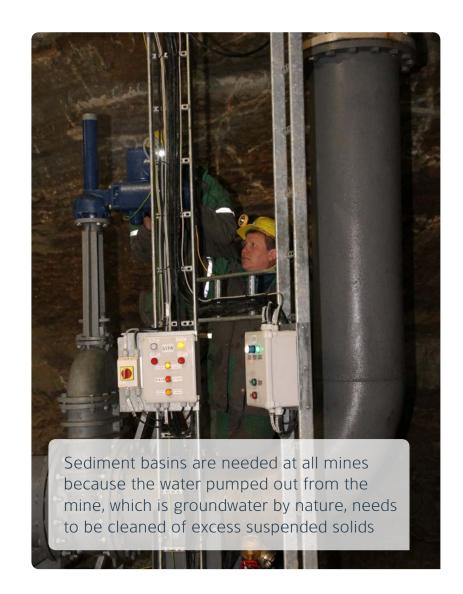
metres deep. The pumping stations we built are supplied with a water purification system which together with the depth of the wells ensures that water quality meets health protection norms. The construction of the water pipelines cost around 1.7 million euros.

# We Built an Underground Sediment Basin in the Estonia Mine

Last year we reduced the environmental impacts of underground mining. We built a unique sediment basin and a modern pumping station in the exhausted room blocks of the Estonia mine. Sediment basins are needed at all mines because the water pumped out from the mine, which is groundwater by nature, needs to be cleaned of excess suspended solids. The new underground basin is five times larger than the previous above-ground basins. The area of the underground sediment basin is 2 square km and maximum volume is 1.1 million m<sup>3</sup>. Thanks to the larger size of the sediment basin, mine water now settles longer and, thus, the suspended solid content of the water which is pumped to the surface is lower. The content of suspended solids in the water of all the above-ground sediment basins was already below the permitted limit but now the water is so clean that laboratory equipment can hardly detect any suspended solids in it. In terms of chemical composition, the water from our Estonia mine is very similar to world famous mineral waters.

The solution helped preserve the environment also because we did not have to use forest land for an above-ground basin. Since the pumping station is also underground, one can only guess its existence by the pipe ends in the mine water raceway. There is no noise above ground – one can only hear the burble of water.

Moreover, the state-of-the-art pumping station consumes less energy and works at the time when electricity is cheaper – mostly at night. Hence, the solution is not only environmentally friendly but also more cost effective.



# We Can Turn Old Tyres into New Energy

In nature, old tyres decompose very slowly. Therefore, unusable tyres dumped in the forest or elsewhere constitute a serious environmental issue. On the other hand, they are a potentially valuable raw material that we could use in our shale oil production technology.

In 2016 and 2017 we carried out industrial tests with different oil shale and crushed tyre mixes to determine production conditions that would affect neither product quality nor environmental indicators. The test results provided valuable information on how old tyres should be prepared if we wish to use them as a fuel.

Already today we can burn up to 5,000 tonnes of pre-crushed old tyres per year

in our Iru power plant which has an incineration system that has been specifically designed and built for burning waste. Its flue gas cleaning equipment is more effective than that of ordinary power plants and able to maintain ambient air quality. Thus, in our Iru power plant we can also recycle tyres which due to their composition are not suitable for liquid fuel production.

In 2017, we carried out three stages of tests at our Enefit oil plants. The tests were successful, confirming that the co-use of oil shale and crushed tyres in the plants' pyrolysis process works when tyre chips account for up to 10% of the fuel mix. During testing, we monitored the characteristics of the product as well as emissions. Emissions did not exceed the permitted levels.





"Every year, around 10,000 tonnes of old tyres are scrapped in Estonia and this is a direct environmental issue. In 2017 we successfully tested the use of tyre chips in oil production and proved that we have the capacity to turn waste — old tyres — into raw material."

ANTON TOIKKA
Development Unit,
Primary Energy Project Manager
Silver award in the category "Safety first"

Based on the final test report, the Ministry of the Environment can prepare draft legislation to determine the terms on which old tyres cease to be waste. Use of old tyres in production operations can start when the legislation has been agreed with the European Commission and enacted. In addition, liquid fuels produced from a mix of old tyres and oil shale have to be registered in the EU REACH system (System for Registration, Evaluation, Authorisation and Restriction of Chemicals) as new products so that they could be subsequently used without restriction.

When a legal basis for using tyre chips in shale oil production is in place, all Estonian forests can be cleaned of old tyres because they would no longer be waste but a valuable raw material.

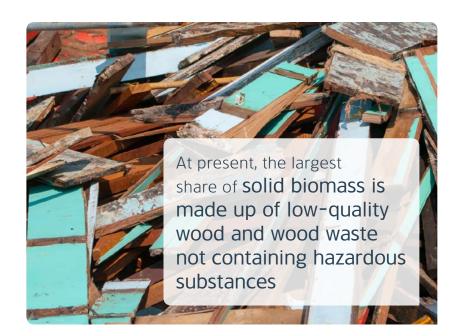
Currently, the project is scheduled to be completed in 2019.

This is a very important project for us because it would allow us to resolve a major environmental issue both in Estonia and the neighbouring countries and also to widen the selection of fuels used in our production operations.

# We Reduce CO<sub>2</sub> Emissions by Using Low-Quality Wood for Energy Production

One of our key goals is to reduce  $\mathrm{CO}_2$  emissions arising on electricity production. Solutions that have a strong impact on achieving this include the construction of new  $\mathrm{CO}_2$ -free renewable energy production capacities and partial replacement of oil shale with solid biomass. At present, the largest share of solid biomass is made up of low-quality wood and wood waste not containing hazardous substances (e.g. building demolition waste) which is unfit for use in other industries.

We are hoping to increase the use of biomass in our Balti and Auvere power plants. Both of those power plants have been designed to use biomass (up to 50% of their fuel mix). At the present market prices, more extensive use of biomass is not economically justified. Therefore, participation in statistical transfers is one solution for using biomass to a larger but sustainable extent.



# We Provide Environmental Information to Stakeholders

As a large energy company, we are committed to using natural resources responsibly and efficiently. However, we understand that besides the work done to improve the quality of the environment, it is important to communicate with stakeholders and inform them about our environmental activities.

Since 2013 we have been organising annual **environ-ment days** 

Since 2013 we have been organising annual environment days. We invite to the event the representatives of different stakeholder groups such as authorities granting permits, environmental organisations, universities and other energy companies.

In recent years, we have raised topics such as oil shale ash, mining water, emissions to air and renewable energy. In 2017, the environment day addressed the role of efficiency in the reduction of the ecological footprint.

During the day, we presented Eesti Energia's efficiency improvement projects, listened to the Ministry of the Environment's views on opportunities for achieving efficiencies in the oil shale sector and discussed options for reusing oil shale ash.

We communicate with local communities also on other matters. For example, thanks to an open dialogue the local community is supportive of the development of the Tootsi wind farm. Tootsi is a former industrial settlement where large-scale peat extraction used to play an important role. To date, extraction has ceased because the deposits have been exhausted. The depleted extraction site stands idle and together with the governor of Pärnu county we have prepared plans and carried out research to find a new use for the area. We can involve the local. people in the construction of the wind farm and indirectly create jobs. Later, local companies and people can also participate in procurements which will be arranged to find maintenance providers for the wind farm.



"Thanks to our clear environmental principles, Eesti Energia's environmental activities are transparent and systematic. I feel it is important that environmental specialists work closely with different units and receive support from both unit managers and other members of the environmental team. The people working in our environmental service are true professionals and leading experts in Estonia."

SIRJE SIIM Environmental Specialist, 42 years at Eesti Energia

Silver award in the category "Life's Work at Eesti Energia"

### KEY ENVIRONMENTAL FIGURES

		2013	2014	2015	2016	2017
PRODUCTION						
Electricity	GWh	10,560	9,687	7,689	9,071	9,736
incl. renewable energy	GWh	263	297	361	380	404
Heat	GWh	1,242	1,309	1,288	1,358	1,186
incl. biomass and waste energy	GWh	223	337	357	412	424
Liquid fuels	thousand t	214	265	337	318	395
Oil shale gas	million m <sup>3</sup>	61	72	95	91	112
RESOURCES USED						
Oil shale	million t	17.2	17.0	13.7	15.2	16.6
Natural gas	million m <sup>3</sup>	47.3	43.8	47.1	60.7	37.2
Biomass	million t	0.1	0.1	0.1	0.2	0.2
Municipal waste	thousand t	183.6	221.4	244.6	247.9	235.7
Cooling water	million m <sup>3</sup>	1,475.0	1,454.5	1,365.1	1,481.9	1,486.7
Pumped mining water	million m <sup>3</sup>	138.2	117.3	103.6	139.5	155.6
incl. water from opencast mines	million m <sup>3</sup>	61.6	57.0	49.0	71.2	76.3
incl. water from underground mines	million m <sup>3</sup>	76.5	60.3	54.7	68.3	79.2

		2013	2014	2015	2016	2017	
EMISSIONS TO AIR							
SO <sub>2</sub>	thousand t	20.9	24.2	17.5	20.7	22.6	
$NO_X$	thousand t	8.8	8.5	5.9	6.4	6.7	
Fly ash	thousand t	9.1	8.5	3.5	2.3	2.5	
CO <sub>2</sub>	million t	13.4	12.8	10.0	11.5	12.3	
SOLID WASTE							
Oil shale ash	million t	8.1	7.9	6.3	7.0	7.2	
incl. recycled	million t	0.1	0.1	0.1	0.1	0.1	
Waste rock	million t	6.3	6.4	6.6	5.0	4.2	
incl. recycled	million t	4.4	1.8	2.0	1.5	1.4	
RELEASES TO WATER							
Suspended matter	thousand t	0.8	0.8	0.6	1.0	0.9	
Sulphates	thousand t	64.8	51.7	60.1	71.1	86.2	
ENVIRONMENTAL CHARGES							
Resource charges*	m€	28.3	28.5	28.1	1.3	15.3	
Pollution charges	m€	24.5	31.8	30.4	30.3	28.7	

<sup>\*</sup>The resource charge figure for 2016 was influenced by retrospective reduction of the resource charge rate. Excluding the impact of retrospective reduction, resource charges for 2016 would have amounted to 17.3 million euros.



We are aware that our activity has a significant impact on both the physical and social environment.

Therefore, we follow the principles of responsible entrepreneurship in our everyday work. We contribute to society, make sure that our production processes are as environmentally friendly as possible and do our best to develop our employees and future talent. We believe that the best results are achieved by working together. Thus, we care about our employees, customers, partners and other groups of society.

We focus on education and innovation in the energy industry to make sure that there will always be enough motivated employees and dedicated developers of the field.

# We Promote a Sporty and Healthy Lifestyle

### Estonian Health Trails

We care about the health and wellbeing of people. Accordingly, we have been contributing to the development of Estonian health

Today there are more than 100 health trails across Estonia

trails together with Swedbank and Merko for 12 years already. Today there are more than 100 health trails across Estonia that are visited millions of times per year. By

pooling our resources, we have built new and fixed old health trails, improved snow production facilities and developed a network of lighted trails. On the community activities day "Let's do it!", our employees helped improve the Pähklimäe health trail in Narva.

In May, a social media campaign, #rajavallutaja, created by the three companies attracted to health trails thousands of sport lovers. For Eesti Energia, May has become a health month in which we actively train together in preparation of the running event Narva Energiajooks.

### Running Event Narva Energiajooks

Narva Energiajooks, organised in 2017 by Eesti Energia and non-profit association Spordiürituste Korraldamise Klubi for the seventh time already, has become a highly popular running event. Last year, participation hit a record as 4,696 people registered for different distances. In 2018, we hope to see over 5,000 sports enthusiasts at the start of Narva Energiajooks.





"Eesti Energia's sports club provides us with an opportunity to train and test ourselves at different competitions on favourable terms. The club considers everyone's interests and offers a wide range of sports activities.

I am proud that Eesti Energia has also been supporting Estonian health trails for 12 years already."

### **EVE KITVEL**

Business and Information Technology Service, Services Manager

Eesti Energia's fastest woman in 2017 on the 21 km distance of the running event Narva Energijajooks

# We Support Young People as They are the Potential Future of Eesti Energia

### Talented Young People's Energy Fund

We pay a lot of attention to Ida-Viru county, as this is the area where our main energy production assets (the assets of Large-scale Energy Production) are located. In 2013, Eesti Energia and the Association of Ida-Viru Local Governments established Talented Young People's Energy Fund. Twice a year grants are provided to young people from Ida-Viru county who have shown outstanding results in order to support their education and recreational activities. In selecting beneficiaries, the fund reviews the applicants' achievements, development goals, references and interests as well as the impact of the grant on the achievement of the goals.

In 2017, we supported the recreational activities of 51 young people from Ida-Viru county. Grant recipients included young people interested in science, robotics, music and arts. Since 2013, the Energy Fund has awarded grants to 192 future talents from Ida-Viru county.

### Working with Schools

For years, our employees have been visiting schools as guest teachers in the framework of the Back to School project to tell pupils about our work and the energy industry. In 2017, they gave over 200 lessons.

In addition, we organised 49 field trips and excursions which brought 1,133 pupils to our production facilities.



Similarly to several previous years, in autumn we organised a series of energy lectures at Tallinn University of Technology. The course of 2017 focused on the strategic development of the energy system. Leading experts from Estonia, Finland, Latvia and Lithuania talked about the challenges of the energy sector. Strategic Development of the Energy System was one of the most popular subjects in the autumn term, attracting, on average, 100 participants per lecture. As the course focused on strategic management issues which did not require specific knowledge of the energy industry, the audience included students from all faculties and a lot of people from outside the university.

### Insenergia Fund

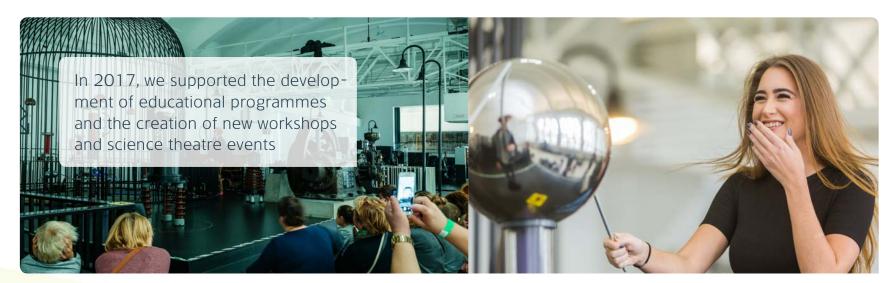
In 2015, we established the Insenergia Fund to support engineering studies from energy to information technology. To be eligible, an initiative must meet the objective of the fund, have a broad impact and substantively involve Eesti Energia. Applications may be submitted by schools, universities, student organisations and non-profit associations.

In 2017, Insenergia supported four projects including future engineers' technical drawing competition CADrina, which was held for the eighth time already. The fund also helped furnish the premises of the programming club of Tartu University Narva College, prepare different study aids and develop a platform for learning robotics.

### **Energy Discovery Centre**

For years we have been working with the Energy Discovery Centre based in Tallinn to introduce children to the world of energy. In 2017, we supported the development of educational programmes and the creation of new workshops and science theatre events closely related to school syllabuses. At the centre one can find out about the basics of electricity and gain in-depth knowledge about the exciting world of green energy.

The Energy Discovery Centre is also our good partner in giving back at Christmas. In 2017, we used our traditional Christmas donation to support large families by inviting them to fun family days at the Energy Discovery Centre. Among other things, the families could attend a science theatre performance about electricity, younger guests could build windmills and weathervanes and older ones could participate in a tour of the historical power plant. Altogether, the family days were attended by 247 large families from across Estonia.



# Eesti Energia is Recognised as a Responsible Company

### Golden Award for Responsible Business

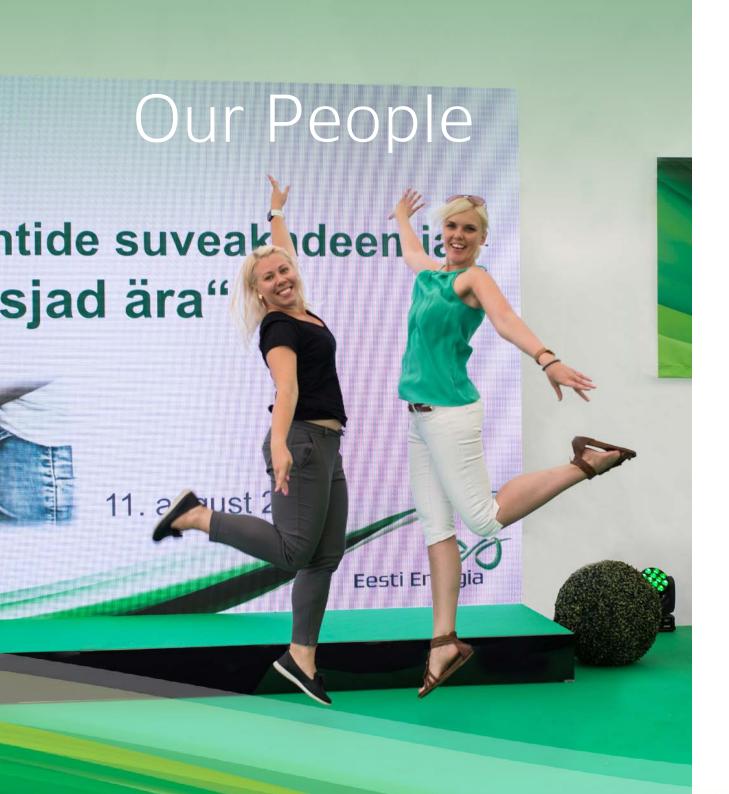


In 2017, we received the Golden Award for Responsible Business for the second year in a row. Previously, we have received three silver awards. The award is given to organisations that stand out for sustainable development, environment-friendly operation and employee, customer and community engagement. In 2017, the golden award was given to 15 organisations including nine large companies.

### Green Office Certification

All our employees have an eco-friendly and green mindset. In recognition of this, at the beginning of 2017 the Estonian Association for Environmental Management awarded Eesti Energia's head office a Green Office Certificate. At the end of the year, our head office also received the title of Green Office of the Year 2017. The Green Office Certificate is granted to organisations whose working environment stands out for green solutions aimed at protecting the health of their employees and reducing the environmental impacts of their offices. All our office buildings are aspiring for Green Office certification.





We feel it is important to offer our people a safe and pleasant working environment and professionally interesting work. We pay a lot of attention to developing our managers with whom we pursue Eesti Energia's ambitious strategic objectives (for further information, see the Strategy chapter on page 22).

Managers set the example in meeting the ethics requirements. In doing their work, they observe the company's core values, good corporate governance practices and the law.

Our core values are the principles which we have agreed and on which we rely in making our professional choices. Thus, they are both practical tools and our common foundation. They help us make choices in both investment decisions and our daily work.

### **EESTI ENERGIA'S VALUES**

USEFUL FOR THE CUSTOMER

We succeed only if we CREATE value for the customer

VALUE ADDING

We FOCUS on activities that create higher value SIMPLIFYING THE COMPLEX

> We MAKE complex matters clear and simple

MY EFFORTS
COUNT

My energy, determination and commitment help achieve our COMMON GOALS SAFETY FIRST

Our activities ALWAYS
INVOLVE environmental
and health risks. Therefore,
we always take occupational
safety, health and the environment into account

### AT EESTI ENERGIA

- we have a high work ethic and a safe working environment
- we have a competitive remuneration system
- we have team spirit and responsible management

- we support our employees' development and look after their health and welfare
- people know that they do important and necessary work

# Our People

Eesti Energia is a diverse organisation – our 5,800 employees include Estonians, Russians, Ukrainians, Latvians, Lithuanians, Poles, Finns, Swedes and other ethnic groups. Accordingly, inside the organisation we communicate most of the information in three languages – Estonian, Russian and English.

### AT 31 DECEMBER 2017, EESTI ENERGIA HAD



There were 779 different-level managers. Eesti Energia is an active provider of internship opportunities: in 2017 we had 205 interns.

# Performance Management

In spring 2017, we approved our Group-wide performance management policies.

Performance management is a process of managing the achievement of goals with a view to carrying out the organisation's strategy. It consists of setting goals, appraising performance, giving feedback and providing recognition.

The Group's managers make sure that employees:

- know the company's goals and believe that those goals are achievable;
- know what is expected of them and give their best by doing work for which they are competent.



"We employ the best of the best.

We have and attract people who wish to achieve something big in their job.

We have plenty of challenges because we want to be the leaders of the energy industry and will accept no less."

TIINA DRUI Head of Human Resources,

member of a team that received a special award Special award "Deed of the year" for manager development activities We motivate our staff by recognising and developing their strengths and enabling them to do responsible work together with the best in their field. Eesti Energia has a remuneration system, which recognises each employee's role and capabilities and encourages performance improvement. The remuneration system is supported by a motivation package – the employer's offering.

# Employer's Offering

We wish to offer our employees a safe working environment, professionally exciting work and competitive pay. We have created the employer's offering, which includes remuneration, benefits and recognition policies.

We make sure that our employees are remunerated fairly, competitively and in line with their contribution. For this, we consistently monitor developments in the labour and salary markets and our financial results.

We thank employees on their work anniversaries, recognise our best staff by electing employees of the year, provide additional days off, organise annual Christmas parties for our employees' children and remember our employees on days and events that are personally important for them.

We also notice those who need help and support employees who lose their capacity for work or contract occupational diseases. We value work-life balance and organise different team events to spend time together.



Our employees can join Eesti Energia's sports club. With over 1,500 members, it is the largest employer-organised sports club in Estonia. In 2017, club members could choose between a range of training opportunities offered by more than 120 partners. Club members participated in football, volleyball and futsal competitions organised by the club and in various amateur sports events.

# We Notice Good Work and Recognise Strong Performers

Our employees share the desire and opportunity to work with the knowledge that their work contributes to Eesti Energia's success.

At the end of each financial year, we recognise our best employees based on their performance and values

At the end of each financial year, we recognise our best employees based on their performance and values and together elect the employees, the achievement and the engineering

solution of the year. From 2017, we also choose the best digital solution of the year because digital technologies increase our competitiveness.

In 2017, we awarded the Achievement of the Year title to effective work arrangement in the Estonia mine in an environment of changing oil shale consumption volumes. The Engineering Solution of the Year award went to an integrated solution for the removal of mercaptans from oil shale gasoline. The Digital Solution of the Year was our Balance & Efficiency project by which improved the operating efficiency of our power plants.

Every year we elect and recognise our best internal trainers and recognise and thank people who celebrate their work anniversaries. In 2017, 1,167 employees celebrated their work anniversaries: one the  $55^{th}$ , three the  $50^{th}$ , nine the  $45^{th}$ , 35 the  $40^{th}$ , 81 the  $35^{th}$  and 59 the  $30^{th}$  work anniversary.



IN 2017, WE AWARDED THE ACHIEVEMENT OF THE YEAR TITLE to effective work arrangement in the Estonia mine in an environment of changing oil shale consumption volumes

THE ENGINEERING SOLUTION OF THE YEAR AWARD went to an integrated solution for the removal of mercaptans from oil shale gasoline

THE DIGITAL SOLUTION OF THE YEAR was our Balance & Efficiency project by which improved the operating efficiency of our power plants

SPECIAL AWARD for manager development activities

## Safe Working Environment

We make every effort to make sure that our employees have a safe and healthy working environment, appropriate training and quality tools and work clothing so that they would feel good in their daily work.

We observe Eesti Energia's ethics standards and have defined a set of golden safety rules for our employees. We work hard to maintain our employees' capacity for work, health and welfare both in the physical and mental sense. We have prepared ourselves for the possibility that our employees may need psychological support, for example in the event of an accident at work. We promote healthy lifestyles and encourage our people to participate in the activities of Eesti Energia's sports club (for further information, see page 56).

## Development of the Organisation

At Eesti Energia, developing and training people is a planned and systematic activity. We believe that this is essential for gaining a competitive edge and, thus, strategically important.

On preparing the strategy, we interviewed 166 managers and used the information received to identify future managers and highpotential employees, i.e. our talent pool.

We believe that people learn best through activities and experience. Employees are responsible for their own professional development and applying their knowledge and skills in their daily work.

We create conditions that favour development. We encourage internal training as a means of sharing knowledge and skills and shaping behaviours. We have set up a comprehensive internal training and development system. A key part of it is on-the-job training which plays an important role in the development of our qualified workforce.

It is important that new employees integrate seamlessly into the organisation. We invest a lot of energy in finding the right people. Therefore, it is essential to support their swift adjustment to our organisation. We have set up an induction programme that includes, for example, a New Employee Day and training in Energy Basics.

# IN 2017, WE DESIGNED A PERSONNEL DEVELOPMENT STRATEGY WHICH IS AIMED AT:

- creating the organisation's and units' strategic three-year personnel development plan that covers staff planning, recruitment and development and supports realisation of the Group's strategy
- identifying competencies and development needs which are critical for long-term success and using them to prepare development programmes and competency models
- identifying our talents, i.e. future managers and their development needs

## Development of Managers

Contemporary industry, which is characterised by rapid technological advancement, needs skilful people management. Eesti Energia pays a lot of attention to developing both current and future managers.

In 2017, we launched a three-year programme for developing our managers' leadership competencies In 2017, we launched a three-year programme for developing our managers' leadership competencies. In spring, 117 managers completed the course and in autumn we opened new groups for around 100 managers.

In March, Eesti Energia's managers' conference was held which focused on the topic "Being a Leader".

In 2017, we also started a club where our managers can share practical management and leadership insights and experience learn from each other.

In August, we organised Managers' Summer Academy, a two-day event which focused on the development of Group-wide collaboration. It was attended by 208 managers.



We feel it is important to notice and recognise good managers. In 2017, we elected our first Manager of the Year. The award went to Valeri Abramov who is responsible for managing the Narva opencast and the Estonia mine.

We are proud that Eesti Energia's managers are also noticed outside the organisation. In spring 2017, our business and information technology manager Agnes Roos was elected Estonia's Most Influential IT Manager of the Year.

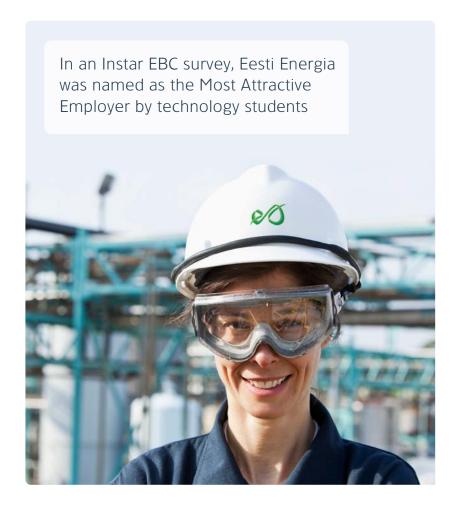
## Most Attractive Employer

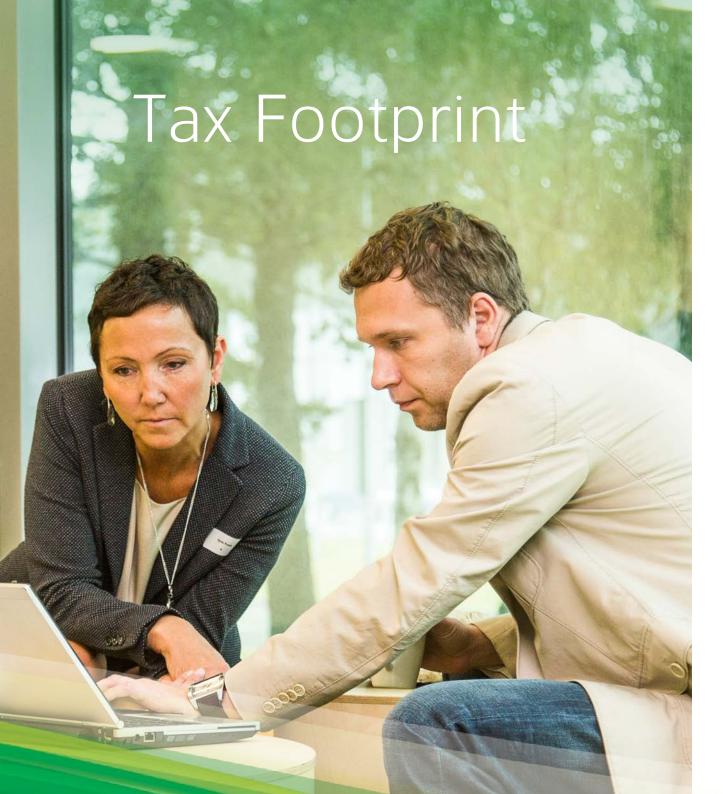
We are pleased that for several years we have ranked high in different employer attractiveness surveys carried out in Estonia. In an employers' reputation survey carried out in May 2017, Eesti

In May 2017, Eesti Energia was named the Most Preferred Employer in Estonia already for the fourth consecutive year Energia was named the Most Preferred Employer in Estonia already for the fourth consecutive year. Both salaried employees and students spontaneously named Eesti Energia as the most preferred employer. According to the survey, every second salaried

employee and over three quarters of students would consider coming to work for us. According to respondents, Eesti Energia's strengths include competitive pay, job security, the size of the company, traditions and, thus, reliability. Students also highlighted opportunities for personal development.

In an employer reputation survey carried out in 2017 in the information and communication technology sector, Eesti Energia ranked as the fifth most attractive employer for IT specialists. In an Instar EBC survey, Eesti Energia was named as the Most Attractive Employer by technology students. We are proud of the fact that we have also become an attractive employer for the IT sector. Digitisation is improving our competitiveness.





We are committed to being a responsible taxpayer because we are aware that the taxes paid by the Group play an important role in the development of all the countries and communities where we operate.

## We Are a Responsible Taxpayer

In our activities, we observe the tax risk management policies approved by the management board according to which:

- 1. We fully and timely fulfil all our obligations arising from the tax legislation of all the countries where we operate.
- 2. We conduct transactions with related parties at market prices, which we document in accordance with applicable requirements. In 2017, we filed, for the first time, our Country-by-Country Report to the tax authority.
- 3. Assessing tax consequences is an essential part of project management. We do not conduct transactions solely or mainly for tax planning purposes. The significance of business objectives never overrides our obligation to meet legal and regulatory requirements.
- 4. We build open, trust-based relations with tax administrators, so as to proactively prevent possible tax disputes and the risk of non-compliance which may put our reputation at risk.
- 5. We assign the assessment of tax consequences to competent staff. In projects where we lack in-house competencies, we seek external advice.

### Our Tax Footprint

In disclosing our tax footprint, we follow generally accepted best practice according to which groups which operate internationally provide an overview of the taxes by tax types and countries.

# IN CALCULATING OUR TAX FOOTPRINT, WE DISTINGUISH BETWEEN TAXES BORNE AND TAXES COLLECTED:

- taxes borne are taxes directly borne by Eesti Energia
- taxes collected are taxes for which Eesti Energia acts as an intermediary, i.e. we collect the taxes from consumers and employees and transmit them to the tax administrator

Eesti Energia discloses its tax footprint, i.e. taxes borne and collected, for the three countries where it currently mainly operates – Estonia, Latvia and Lithuania.

In 2017, taxes borne and collected by Eesti Energia in Estonia totalled 87.7 million euros and 111.4 million euros respectively. Consequently, the Group's tax footprint in Estonia amounted to 1991 million euros

With 62.9 million euros, Eesti Energia Group is the largest payer of payroll taxes in Estonia. The year on year change in total taxes paid is mainly attributable to the fact that in 2017 the dividend distribution in Estonia was made in December and associated income tax is to be paid in January 2018.

### TAX FOOTPRINT: EESTI ENERGIA GROUP'S TAX PAYMENTS IN THE BALTICS\* (m€)

TAXES BORNE	Estonia 2017	Estonia 2016	Latvia 2017	Latvia 2016	Lithuania 2017	Lithuania 2016	Total 2017	Total 2016
Payroll taxes (social security tax, employer's share of unemployment insurance)	39.2	36.1	0.1	0.1	0.1	0.0	39.4	36.2
Environmental charges: resource charges	14.9	15.1	0.0	0.0	0.0	0.0	14.9	15.1
Environmental charges: pollution charges	32.5	31.6	0.0	0.0	0.0	0.0	32.6	31.6
Corporate income tax	0.3	15.3	0.0	0.0	0.0	0.0	0.3	15.3
Customs VAT	0.3	0.4	0.0	0.0	0.0	0.0	0.3	0.4
Land tax	0.2	0.3	0.0	0.0	0.0	0.0	0.2	0.3
Total taxes borne	87.5	98.8	0.1	0.1	0.1	0.1	87.7	99.0
Taxes collected								
Excise taxes	33.4	33.3	1.5	0.2	0.1	0.1	35.0	33.6
Payroll taxes (income tax, employees' share of unemployment insurance,								
mandatory pension insurance)	23.7	21.7	0.2	0.1	0.0	0.0	24.0	21.9
VAT (balance)	37.6	41.5	10.0	10.6	4.8	4.8	52.5	56.9
Total taxes collected	94.7	96.5	11.7	10.9	5.0	4.9	111.4	112.4
Total taxes	182.2	195.3	11.8	11.0	5.1	5.0	199.1	211.4

<sup>\*</sup> Reported on a cash basis

# The value Eesti Energia delivers to society, and it's broke down



811.0

million euros

ECONOMIC VALUE GENERATED BY THE GROUP IN 2017

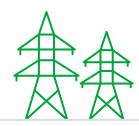
(i.e. revenue and other operating income)

218.4 million euros

### **ECONOMIC VALUE RETAINED**

(before the deduction of depreciation, amortisation and other finance income and expenses)











330.1

million euros

OTHER OPERATING EXPENSES

(operating expenses, expenses on plant and equipment, other expenses to suppliers) 123.8

million euros

TAXES
TO THE STATE

(excise duty, payroll taxes, environmental charges, income tax) 104.3

million euros

EMPLOYEE REMUNERATION EXPENSES

(basic remuneration, performance bonuses, holiday pay)

34.3

million euros

INTEREST EXPENSES ACCRUED

(within financial expenses, excluding capitalised items)

<sup>\*</sup> Presented on an accrual basis



Eesti Energia's sole owner is the Republic of Estonia.

The owner's expectations consist of the principles the Group must follow in designing its strategy and action plan and strategic and financial objectives.

# STRATEGIC OBJECTIVES SET BY THE OWNER

- to hold a significant share of the regional electricity market
- to reduce CO<sub>2</sub> emissions in power production
- to develop oil production and other ways of adding value to oil shale
- to increase international recognition of Estonia's competence in oil shale energy
- to improve the quality of network service
- to minimise the environmental impacts of the company's operations

Further information on strategic objectives and projects is provided in the Strategy chapter (see page 27)

# FINANCIAL OBJECTIVES SET BY THE OWNER

- to organise operations so that the Group earns a sufficient return on equity
- to improve operating efficiency
- to ensure stable and increasing dividend income
- to organise operations so that the Group has an optimal capital structure and the industry's average risk level
- to finance investments predominantly with the Group's operating cash flow and debt capital
- to ensure that each of the Group's business lines generates independent and measurable return on invested capital

# Management Principles

The objective of Eesti Energia's supervisory board and management board is to develop and manage Eesti Energia so that it would be a positive example for other Estonian companies in terms of the clarity of its strategy, good corporate governance practices, operating efficiency and financial performance as well as collaboration with all stakeholders. The supervisory board approves the strategy of Eesti Energia Group.

The management board and the supervisory board manage Eesti Energia in line with the owner's expectations, the Group's vision and values and applicable laws and regulations. To improve management

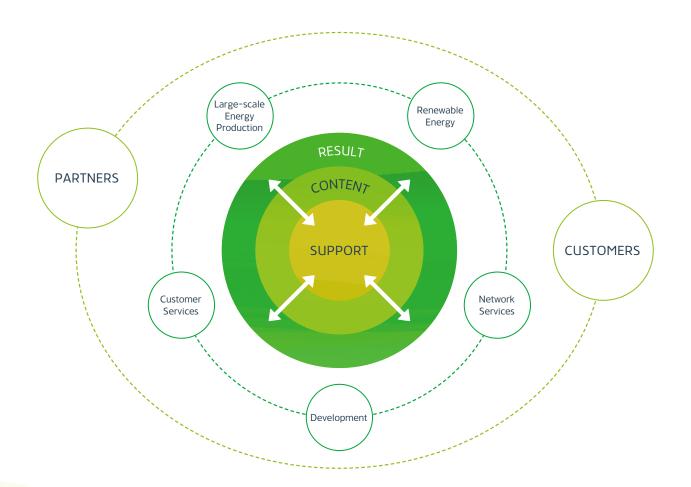
quality, we develop our managers. Further information on managers' development is provided in the chapter Our People (see page 59).

To achieve Eesti Energia's ambitious goals, we need engaged people. We value people with a calling: when a person and a job are a good fit, natural talent which is useful both for the employee and the company is heightened. Ensuring employee engagement is the responsibility of our managers who apply our common people management principles. We keep our employees continuously informed about the organisation's goals and their achievement, we provide a safe working environment and high work ethic, we pay our employees a competitive salary and notice and recognise our people. Eesti Energia's people management policies are available to all staff via our internal communication channels.

# Organisational Structure

It is important for us that Eesti Energia's structure should be simple and aligned with the organisation's goals and needs. We are ready to change our structure when this is required by changes in the business environment. In December 2017, we divided Eesti Energia into five

business lines: Large-scale Energy Production, Renewable Energy, Developments, Network Services and Customer Services. Further information on the objectives of the business lines is provided in the Strategy chapter (see page 22).



## Eesti Energia's Governing Bodies

The governing bodies of the Group's parent, Eesti Energia AS, are the general meeting, the supervisory board and the management board.

# General Meeting

The general meeting is Eesti Energia's highest governing body, which decides, among other things, the establishment and acquisition of new and the liquidation of existing companies, the appointment and removal of members of the supervisory board, major investments, the appointment of the auditor and the approval of the results for the financial year. Eesti Energia's supervisory board was among the first to be appointed based on the recommendations of the nomination committee of the supervisory board members of public undertakings formed on 23 February 2017.

Eesti Energia's sole shareholder is the Republic of Estonia which is represented at the general meeting by the minister of finance. The annual general meeting is convened once a year, within six months after the end of the Group's financial year, at the time and in the place determined by the management board.

# Supervisory Board

Eesti Energia's supervisory board is a governing body that plans the Group's activities, organises the Group's management and supervises the activities of the management board. The supervisory board communicates the results of its supervision activities to the sole shareholder. Eesti Energia's supervisory board has 6-8 members that are appointed by the resolution of the minister of finance

who represents the sole shareholder taking into account the proposals made by the nomination committee of the supervisory board members of public undertakings. The supervisory board is headed by a chairman. The requirements and expectations for members of Eesti Energia's supervisory board are set forth in the Commercial Code and the State Assets Act. In addition, the supervisory board is guided by the articles of association of Eesti Energia AS and the rules of procedure of the supervisory board.

# THE PRIMARY FUNCTIONS OF THE SUPERVISORY BOARD ARE AS FOLLOWS:

- supervising the implementation of the Group's strategy
- planning the Group's activities, adopting major strategic decisions, organising management and supervising the activities of the management board

In 2017, the legal adviser of the supervisory board was attorney at law Sven Papp from law firm Raidla Ellex.

At the end of 2017, the supervisory board of Eesti Energia comprised the chairman of the supervisory board Väino Kaldoja and members of the supervisory board Kaie Karniol, Danel Tuusis, Ants Pauls, Andres Liinat, Ivo Palu and Einari Kisel.

Based on a resolution adopted by the owner in January 2017, Erkki Raasuke and Märt Vooglaid were removed from the supervisory board and Kaie Karniol was appointed as a new member of the supervisory board. In addition, based on a resolution adopted by the sole shareholder, Meelis Virkebau was removed from the

supervisory board in February in connection with his appointment as a new public conciliator.

On 10 May 2017, the nomination committee of the supervisory board members of public undertakings proposed that Eesti Energia's general meeting should harmonise the terms of office of members of the company's supervisory board. Accordingly, the general meeting removed Veiko Tali, Danel Tuusis, Väino Kaldoja, Rannar Vassiljev, Ants Pauls and Kaie Karniol from the supervisory board and, based on a proposal of the nomination committee of the supervisory board members of public undertakings, appointed Väino Kaldoja, Kaie Karniol, Danel Tuusis, Ants Pauls, Andres Liinat, Ivo Palu and Einari Kisel as members of the supervisory board.

The remuneration of members of Eesti Energia's supervisory board is regulated by the State Assets Act according to which the amount of the remuneration and its payment procedure are at the discretion of the sole shareholder. Taking into consideration the proposal by the nomination committee of the supervisory board members of public undertakings, the monthly remuneration for the chairman of the supervisory board and a member of the supervisory board is 2,000 euros and 1,000 euros respectively. Members of the supervisory board are not entitled to any termination benefits or additional remuneration. As a rule, the supervisory board meets once a month, except during the summer months. In 2017, the supervisory board held 11 meetings and 3 resolutions were passed without calling a meeting.

In addition to participating in meetings of the supervisory board, members of the supervisory board actively support the activities of Eesti Energia. They visit Eesti Energia's operations to gain insights and meet owner's representatives, business partners and other stakeholder groups where this is important for Eesti Energia.

In 2017, members of the supervisory board where there when the prime minister and the minister of finance visited Eesti Energia. They visited Enefit Solutions, Elektrilevi, the oil plants and the Balti power plant to be briefed and review operations. Members of the supervisory board also attended meetings with members of the management and supervisory boards of VKG and the management of the Virumaa College of Tallinn Technical University. Together with the management board, the supervisory board visited Repo Vabrikud AS. The chairman of the management board and the chairman of the supervisory board visited our first solar power project at Estonia dairy farm and the Cleveron plant.

# SUPERVISORY BOARD MEMBERS' PARTICIPATION IN MEETINGS AND TOTAL REMUNERATION PAID

	Participation in meetings in 2017	Total remuneration in 2017 (€)	Total remuneration in 2016 (€)
VÄINO KALDOJA	11	16,639	4,257
ANTS PAULS	11	9,184	4,257
VEIKO TALI	4	2,064	3,902
DANEL TUUSIS	10	8,184	3,547
RANNAR VASSILJEV	4	1,548	4,257
MEELIS VIRKEBAU	2	708	4,257
KAIE KARNIOL	10	8,894	0
ANDRES LIINAT	6	6,636	0
IVO PALU	7	7,636	0
EINARI KISEL	6	7,636	0

# SUPERVISORY BOARD (as at 31 December 2017)



VÄINO KALDOJA / 61 Chairman Beginning of term of office: 18.05.2017 End of term of office: 1.05.2020



DANEL TUUSIS / 47 Member Beginning of term of office: 12.06.2014 End of term of office: 11.05.2020



ANTS PAULS / 77
Member
Beginning of term of office: 06.10.2015
End of term of office: 11.05.2020



KAIE KARNIOL / 47 Member Beginning of term of office: 2.05.2017 End of term of office: 11.05.2020



IVO PALU / 38
Member
Beginning of term of office: 12.05.2017
End of term of office: 11.05.2020



EINARI KISEL / 45
Member
Beginning of term of office: 12.05.2017
End of term of office: 11.05.2020



ANDRES LIINAT / 55 Member Beginning of term of office: 12.05.2017 End of term of office: 11.05.2020

# Supervisory Boards of Subsidiaries and Associates

The powers and responsibilities of members of the supervisory boards of Eesti Energia's subsidiaries and associates are set forth in their articles of association. Their supervisory boards consist mostly of members of Eesti Energia's management board. The meetings of the supervisory boards of subsidiaries and associates take place according to need and in line with legal requirements. The term of office of a member of the supervisory board of a subsidiary or associate coincides with the member's term of office on Eesti Energia's management board. Meetings are called in accordance with the Group's rules, the subsidiary's or associate's articles of association, the law and agreements with co-shareholders.

# Management Board

The Group's executive management is the responsibility of Eesti Energia's management board which follows the lawful instructions of the supervisory board. The chairman of the management board is appointed by the supervisory board. Members of the management board are approved by the supervisory board based on proposals made by the chairman of the management board.

On 1 December 2017, the composition of Eesti Energia's management board changed. The contract of the member of the management board Andres Vainola expired. The supervisory board appointed Andres Sutt as a new member of the management board. At the year-end, the management board of Eesti Energia comprised the chairman of the management board Hando Sutter and members of the management board Andri Avila, Raine Pajo, Margus Vals and Andres Sutt. The areas of responsibility of members of the management board are outlined on page 72.

The remuneration of members of Eesti Energia's management board is regulated by the State Assets Act. The amount of their remuneration is at the discretion of the supervisory board. Members of the management board are remunerated for fulfilling their responsibilities as members of the management board. Their remuneration is set out in the contracts signed with them and it can be altered subject to mutual agreement. Members of the management board may be paid additional remuneration. The total amount of additional remuneration paid during the financial year may not exceed fourfold average monthly remuneration received by the member of the management board in the previous financial year. Assignment of additional remuneration must be justified and consistent with the Group's performance, value added and market position. Termination benefits may only be paid when the supervisory board removes a member of the management board on its initiative before the term of office of the member of the management board expires and the amount may not exceed the management board member's threefold monthly remuneration.

As a rule, the management board meets once a week. Where necessary, meetings are held electronically. In 2017, 53 meetings were held, 2 of which were conducted electronically.

# MANAGEMENT BOARD MEMBERS' PARTICIPATION IN MEETINGS AND TOTAL REMUNERATION PAID

	Participation in meetings in 2017	Total remuneration in 2017 (€)	Total remuneration in 2016 (€)
HANDO SUTTER	47	202,150	163,850
ANDRI AVILA	49	130,150	105,850
RAINE PAJO	49	130,150	105,850
ANDRES VAINOLA	44	131,406	134,850
MARGUS VALS	47	130,150	105,850
ANDRES SUTT	2	9,000	0

### MANAGEMENT BOARD

(as at 31 December 2017)



HANDO SUTTER / 47 Chairman of the Management Board

Beginning of term of office: 1.12.2014 End of term of office: 30.11.2019

### PREVIOUS CAREER

- Nord Pool Spot AS: Regional Market Manager, Estonia, Latvia, Lithuania and Russia
- US Invest AS: Development Adviser
- Olympic Entertainment Group AS: Chief Operating Officer

### **EDUCATION**

- Estonian Business School, MBA Course
- Tallinn University of Technology, Mechanical Engineer

### ANDRI AVILA / 41

Member of the Management Board Chief Financial Officer

Beginning of term of office: 1.03.2015
End of term of office: 30.11.2019

### PREVIOUS CAREER

- Premia Foods AS:
   Member of the Management
   Board/Chief Financial Officer
- Olympic Entertainment Group AS: Chairman of the Management Board
- Olympic Entertainment Group AS: Member of the Management Board/Chief Financial Officer/ Chief Operating Officer

### **EDUCATION**

 Concordia International University Estonia, International Business Administration cum laude

### MARGUS VALS / 38

Member of the Management Board Area of responsibility: Development

Beginning of term of office: 1.12.2014
End of term of office: 30.11.2019

### PREVIOUS CAREER

- Eesti Energia AS:
   Director of Strategy
- Eesti Energia AS: Director of Energy Trading

#### **EDUCATION**

- London Business School, Master of Research
- Tallinn University of Technology, BA in Economics

### RAINE PAIO / 41

Member of the Management Board Area of responsibility: Large-scale Energy Production

Beginning of term of office: 1.12.2006 End of term of office: 30.11.2019

### PREVIOUS CAREER

- Eesti Energia: Member of the Management Board, Technical Director, environment, electricity and heat production, energy trading, technology industry, oil production
- OÜ Põhivõrk (current name Elering): Chairman of the Supervisory Board, Member of the Management Board, Head of Development Department, Director of Electrical Grid Planning Division, Client Account Manager
- Finnish Transmission System
   Operator Fingrid Oy: Network Planner
- · AS Ecomatic: Product Manager

#### **EDUCATION**

- Tallinn University of Technology, MA in Business Administration
- Tallinn University of Technology, MSc and Doctor of Engineering
- Tallinn University of Technology, Electrical Engineer

### ANDRES SUTT / 50

Member of the Management Board Area of responsibility: Customer Services

Beginning of term of office: 1.12.2017
End of term of office: 30.11.2019

### PREVIOUS CAREER

- Eesti Energia: Director of Regulatory Affairs
- European Stability Mechanism (ESM): Head of Banking Division
- European Financial Stability Facility (EFSF): Senior Adviser to CEO
- International Monetary Fund (IMF): Senior Adviser to Executive Director Representing the Nordic-Baltic Constituency and Member of the Board of Directors
- Eesti Pank: Vice President, Deputy Head of Central Bank Policy Department, Deputy Head of Banking Supervision Authority

#### **EDUCATION**

- · University of Tartu, Finance and Credit
- INSEAD, France, Leadership Programme
- Harvard Law School PON, Negotiation and Leadership

# Differences Applying to Management of the Distribution Network Operator Elektrilevi OÜ

Under the Electricity Market Act, Elektrilevi as the distribution network operator has to ensure, among other things, that all market participants are treated equally and that the network operator's information is protected. In line with the law and best practice, Eesti Energia has put in place differences applying to management of Elektrilevi, which ensure the network operator's independence in adopting investment decisions, conducting procurements and maintaining the confidentiality of information pertaining to market participants and customer contracts.

## Reporting Principles

Right information at the right time is key to quality management decisions. We have implemented reporting processes for monitoring our key performance indicators and other important metrics on a weekly, monthly, quarterly and annual basis. Once a month, we compare our results to the budget and the latest forecast. Once a quarter, we review our action plan for the rest of the year and, where necessary, adjust our business operations so that they are appropriate in the current market situation. Once a year, we update the Group's five-year strategic action plan.

In 2017, we approved the principles for the Group's key performance indicators to make sure that the activities of all levels of manage-

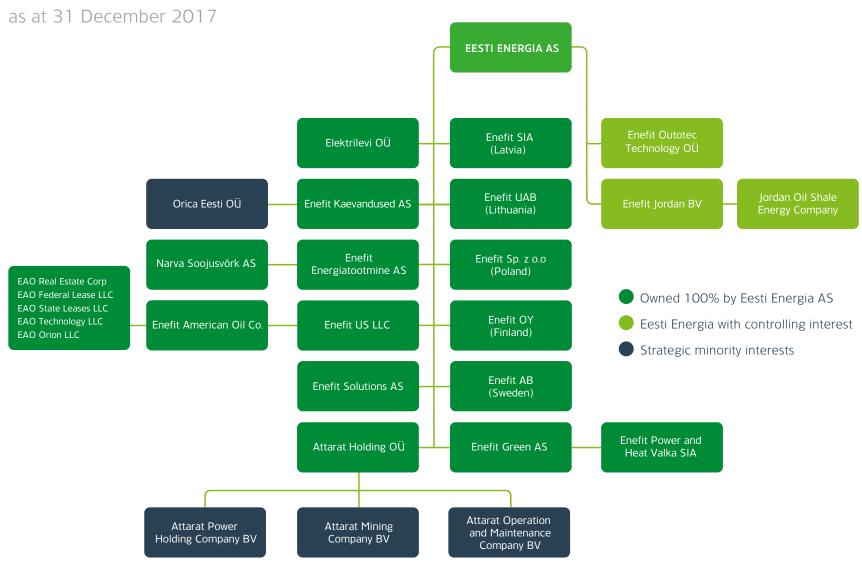
ment are in alignment with the Group's main goals. We continuously share information to adopt more effective performance indicators.

In 2017, we implemented the Tableau data analytics and reporting software for monthly reporting. Contemporary management information dashboards allow analysing and measuring results not only more quickly and conveniently but also in a more interactive manner and create a basis for higher-quality and faster management decisions. In 2018, we are expect to implement Tableau also for weekly reporting and the regular reporting of all our major units.

In addition to reports regularly submitted to the Statistical Office, three times a year we release a thorough quarterly report and once a year our annual report. When we release a quarterly or annual report, we hold a press conference and organise a conference call to present the results. We also share information on our results with the staff.

We release information on the company's operations that may affect the price of the Eurobond in accordance with the rules of the London Stock Exchange and, in the first place, via the information system of the London Stock Exchange. We release other information which is not expected to affect the price of the Eurobond via national media channels. In both cases, we disseminate information in line with the Group's rules for handling inside information, which are designed to protect the interests of bondholders and ensure fair and orderly trade of the bonds. All relevant information about Eesti Energia and its subsidiaries must be available to all bondholders and potential investors in a timely, consistent and equitable manner (to the same extent, at the same time and in the same manner).

#### **GROUP STRUCTURE**



# Supervision of the Group

The Group has implemented a multi-level process to ensure effective supervision over the operation of the internal control system. Supervision is carried out by the Group's supervisory board and management board, the audit committee, the supervisory boards and management boards of Group entities, and the risk management, internal audit and other departments and units entrusted with supervision (e.g. the procurement and environmental services units).

Ultimate responsibility for the implementation and proper application of the Group's risk management policies and internal control system rests with the management board. To fulfil the obligation, the management board, among other things:

- approves risk management principles and policies for individual risk areas:
- develops a strategy and organises preparation of the budget;
- manages the Group's activities in a manner that ensures that the Group implements the approved strategy and meets the budget;
- organises development and approval of operational agreements and requirements necessary for managing Eesti Energia;
- applies management measures to develop a risk-conscious management culture;
- monitors the Group's current and expected level of risks so that it would meet the Group's risk appetite and risk tolerance.

The management board of a subsidiary is supervised by the subsidiary's supervisory board, which consists of members of the Group's management board. The chairman and members of a subsidiary's management board inform the subsidiary's supervisory board about the subsidiary's performance and outlook on a regular basis and about all important risks and transactions promptly and completely and in accordance with relevant procedures.

Documents governing the Group's activities generally also apply to its subsidiaries and, where necessary, the subsidiaries adopt relevant decisions. Any changes made to documents governing the Group's activities also apply to the subsidiaries.

Members of the subsidiaries' management boards have the obligation to participate in the development of documents governing the Group's activities to ensure that those documents take into account the subsidiaries' interests. A subsidiary's management board must immediately inform the subsidiary's supervisory board if, and why, the subsidiary does not comply with a document governing the Group's activities.

# Audit Committee and External Auditor

The audit committee set up by the Group's supervisory board is a body which is responsible for advising the supervisory board in matters related to accounting, audit, risk management, internal control and internal audit, supervision and budgeting, and legal and regulatory compliance.

The audit committee has four members. The composition and the chairman of the audit committee are determined by the Group's supervisory board. The audit committee meets according to an agreed schedule at least once a quarter. In 2017, the committee had 11 ordinary meetings. The audit committee submits its report to the supervisory board once a year, before the supervisory board approves the Group's annual report. The audit committee statement is presented on page 77.

Eesti Energia's financial statements are audited in accordance with International Standards on Auditing. Under Eesti Energia's articles of association, the appointment of the auditor of the financial statements is the responsibility of the general meeting. The general meeting has appointed audit firm PricewaterhouseCoopers (PwC) as the auditor of the financial statements for financial year 2017. The person authorised to sign the auditor's report depends on the country of incorporation of the Group entity. The auditor responsible for the audit of the consolidated financial statements is certified public accountant Tiit Raimla. Eesti Energia does not disclose the fee paid to the external auditor because the Group believes that this could undermine the outcomes of future procurements.

PwC presented the results of the work related to the reporting period in two stages:

- 1) interim audit results were presented at a meeting of the audit committee in December 2017;
- 2) year-end audit results were presented at a meeting of the audit committee in February 2018.

The independent auditor's report is presented on page 186.

The audit committee evaluates the independence of the external auditor and carries out supervisory activities to prevent conflicts of interest. For this, the audit committee has established a set of principles to be followed when the auditor wishes to provide additional services to Group entities.

In 2017, PwC provided the Group with tax consulting services and some other advisory services permitted by the Estonian Auditors Activities Act.

# AUDIT COMMITTEE MEMBERS' PARTICIPATION IN MEETINGS AND TOTAL REMUNERATION PAID

	Participation in meetings in 2017	Total remuneration in 2017 (€)	Total remuneration in 2016 (€)
KAIE KARNIOL	11	3,224	2,400
DANEL TUUSIS	10	1,855	710
MEELIS VIRKEBAU	2	177	1,065
ANTS PAULS	9	1,927	0
MAIT PALTS	5	2,500	0

#### AUDIT COMMITTEE (as at 31 December 2017)



KAIE KARNIOL / 47 Chairwoman Beginning of term of office: 16.06.2016 End of term of office: 16.06.2019

ANTS PAULS / 77
Member
Beginning of term of office: 23.02.2017

End of term of office: 23.02.2020



Member
Beginning of term of office: 01.11.2015
End of term of office: 15.10.2018

DANEL TUUSIS / 47



Member
Beginning of term of office: 15.06.2017
End of term of office: 15.06.2020

MAIT PALTS / 38

### Internal Audit

The work of the internal audit function is organised in accordance with the Auditors Activities Act and related regulations and the International Professional Practices Framework which sets out international standards for internal auditing. The role of the internal auditors is to contribute to improving the internal control environment, risk management and business management culture. The work of the internal audit function covers the activities of the whole Group. Ensuring effective operation of the internal audit function is the responsibility of the internal audit department. The department is accountable to the audit committee and the supervisory board. The action plan of the internal audit department is approved and

evaluated by the audit committee. The internal auditors' report on 2017 was submitted to the audit committee in February 2018.

The Group has established a system for the declaration of economic interests by which employees who may encounter conflicts of interest in fulfilling their responsibilities declare their economic interests and confirm their independence through regular self-assessment. To the knowledge of Eesti Energia, members of the Group's management board and the management boards of the subsidiaries did not have any conflicts of interest in 2017 and they did not conduct any related party transactions on terms different from market terms. An overview of related party transactions conducted in 2017 is presented in the financial statements.

### Audit Committee Statement

In 2017, the audit committee carried out its responsibilities in accordance with its approved statutes and action plan. No restrictions were imposed on our activities and the Group's representatives made all the necessary information available to us. Well-defined reporting lines ensured a fluent flow of relevant information to us. We informed the Group's supervisory board and the representatives of the Group's management board of the opinions we formed based on our work and related suggestions.

We formed our opinion on the following activities of the Group in fiscal year 2017:

- adherence to established accounting policies;
- operation of processes for the preparation and approval of budgets and financial statements:

- arrangement of a sufficient and effective external audit and assurance of its independence;
- development and operation of the internal control system;
- monitoring of the legal and regulatory compliance of the company;
- organisation of the internal audit function.

The audit committee finds that the activities of Eesti Energia Group do not involve any deficiencies of which the management is unaware and/or which could have a material impact on the Group's annual report for 2017.

The audit committee submitted its activity report and assessments along with this statement to the supervisory board of Eesti Energia in February 2018.

#### Kaie Karniol

Chairwoman of the Audit Committee



### The purpose of Eesti Energia's risk management activities is to

support the implementation of Eesti Energia's strategy



and operating targets

identify potential opportunities



prevent undesirable events

Management of the Group's risks is the responsibility of the Group's management board. Oversight of the proper functioning of risk management activities and processes is the responsibility of the Group's supervisory board, audit committee and internal audit department.

### Risk Profile

We have identified and described the risks which have an impact on our operations. Our main sources of risk are energy markets, operating environment and the technologies we use.

The risks described in our risk profile include, for example, financial risk (including market, credit and liquidity risk), legal risk, compliance risk, technological and technical risk, environmental risk, working environment risk, IT risk, fraud risk and personnel risk. Assessing and updating the risk profile is part of our day-to-day management activities. We assess the risks involved in both existing activities and those under development.

# Risk Management Framework

Our risk management framework consists of risk management principles, which describe the risk management process, stakeholders' roles and responsibilities, and the policies for managing individual risks, which describe relevant risk management principles. In developing and updating risk management principles and policies, we rely, among other things, on laws and regulations, international standards and best practice. In line with our operating principles, we have centralised the management of financial, IT, legal, security and fire risk.

Developing and implementing area-specific risk management policies and methods is the responsibility of each entity or unit manager tasked with risk management. Risk-related information exchange, reporting, decision-making and similar activities take place at relevant levels of management or in committees (e.g. financial risk

committee). In applying our risk management policies, we pay a lot of attention to training and informing activities aimed at preventing the realisation of risks.

The Group's risk appetite is outlined in its

In applying our risk management policies, we pay a lot of attention to training and informing activities aimed at preventing the realisation of risks

strategy and expressed in its budget. Risk tolerance is set out in Group-wide policies, thresholds and limits and external regulatory requirements.

# Key Risks and Risk Mitigation

# THE KEY RISKS WHICH INFLUENCE THE ACHIEVEMENT OF EESTI ENERGIA'S OBJECTIVES INCLUDE:

- market risk, which is part of financial risk
- legal risk
- environmental risk
- various operational risks

We pay a lot of attention to ensuring the continuity of vital and business-critical operations, data protection and the safety of the working environment. MARKET RISK influences the sale of our goods and services and the purchase of the resources we need. The most significant market risk is the risk related to the prices of electricity, shale oil and emission allowances. We hedge financial risks, among other things, with derivative financial instruments on which further information can be found in the financial statements section of this report.

LEGAL RISK, which arises from regulators' activities and political decisions, influences both our day-to-day business and strategic objectives. The key measures for mitigating legal risk include monitoring trends and developments in the legal environment, participating in the development of new legislation and making sure that our activities comply with legal requirements.

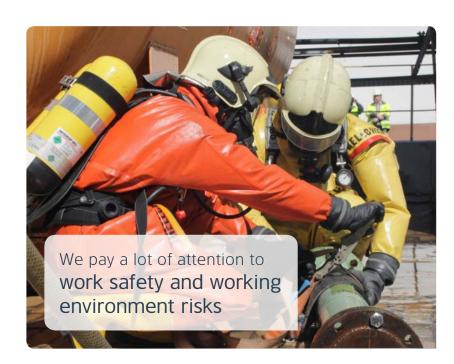
ENVIRONMENTAL RISK is the risk that through its activity or failure to act the Group causes environmental damage in a scope or to an extent that is not in line with its agreed goals. Environmental risk also includes situations where non-compliance with established restrictions jeopardises achievement of the Group's goals and, thus, also realisation of its strategy. Our strategic objective is to limit adverse environmental impacts. To control and reduce our environmental impacts, we have implemented an environmental management system that complies with the requirements of ISO 14001 and EMAS (the EU Eco-Management and Audit Scheme). We also prevent negative environmental impacts by applying appropriate technological solutions, improving efficiency and reusing materials. In addition, we diversify our production portfolio by increasing the share of renewable energy sources.

OPERATIONAL RISKS result from inadequate or ineffective processes, people, equipment, systems, or external events. Operational risks are managed by applying policies, standards, management

principles and performance indicators. To control the impact of some operational risks, for example to cover property losses, we purchase insurance cover.

Because of the scope and volume of the Group's operations we pay a lot of attention to fraud risk management. This is among the main responsibilities of the internal control department which is part of the Group's internal control system.

In fraud risk management, we focus, above all, on increasing the share and effectiveness of preventive measures designed to lower the threat of fraud risk materialising and causing damage. We have adopted a code of ethics and fraud risk management principles that comply with relevant international standards, we arrange staff days



and training programmes that focus on fraud risk, and we cooperate with law enforcement authorities.

We carry out regular fraud risk assessments aimed at identifying fraud risk in the Group's processes and structural units, assessing the probability of risk events occurring and their impact on the Group's assets and/or reputation, and implementing appropriate measures for mitigating the risks identified. In its audit report "Overview of corruption prevention in public undertakings" issued in 2017, the Estonian National Audit Office finds that Eesti Energia Group has established adequate internal procedures and controls to prevent corruption which is a type of fraud.

We pay a lot of attention to work safety and working environment risks. Our production entities have implemented occupational health and safety assessment system OHSAS 18001. Our goal is to work without accidents and occupational diseases.

We believe it is important to involve employees in identifying risks and implementing risk mitigation measures We have set up a work safety committee for all our production entities. It is an advisory body that consists of the managers, working environment specialists and safety specialists of the Group's

production entities. The committee is headed by the member of the Group's management board who is responsible for Large-scale Energy Production. The purpose of the committee is to tighten Group entities' cooperation in the area of working environment and work safety and facilitate the achievement of safety targets both at the level of individual Group entities and the Group as a whole. In 2017, the work safety committee met three times and a Work Safety Forum was arranged for the managers of the Group's production entities. We arrange regular safety days and weeks at our production entities to check workplace compliance with work environment and occupational safety requirements. In 2017, we organised 40 safety days and 12 safety weeks across the Group.

We believe it is important to involve employees in identifying risks and implementing risk mitigation measures. We also notify our partners of our ethics, occupational health, work safety and fire safety requirements which they have to observe at Eesti Energia's entities, sites and projects.

As a production company, we pay a lot of attention to the operation and maintenance of our assets. To ensure that assets are operated efficiently, safely and in accordance with environmental requirements, we have created separate asset management units at Enefit Energiatootmine and Enefit Kaevandused. One of our targets is to implement ISO 55000 compliant asset management systems.

## Risk Analysis Methodology

For risk analysis we use analysis models, quantitative assessments and simulation methods. We analyse, among other things, how different factors would affect, for example:

- achievement of our targets;
- cash flow planned for our investment activities;
- compliance with the financial covenants of our loan agreements;
- maintaining our financial performance indicators at an optimal level.

## Risk Reporting

Eesti Energia's reporting and information exchange processes ensure that risk-related information reaches all stakeholders. Risk-related information is also included in our general reporting and analysis of performance indicators and results. We measure the success of our processes and activities and the achievement of our targets, among other things, using the key performance indicators (KPI).

The risks which have a significant impact on the achievement of the Group's goals and targets are regularly reported to the Group's management board and audit committee. Management and other relevant parties are notified without delay of any significant events and changes in the Group's risk profile.



In 2017, Eesti Energia's revenue grew by 2% but EBITDA and net profit decreased.

The Group generated revenue of 753.9 million euros, 1.6% (+11.8 million euros) more than in 2016. Revenue growth was driven by a strong improvement in shale oil sales volume and sales price. The sales volumes of all the key products increased.

EBITDA decreased by 19.3% to 264.2 million euros (-63.1 million euros).

EBITDA declined, mainly because the figure for 2016 was strengthened by some positive non-recurring items, primarily income from liquidated damages received for the Auvere power plant, which were recognised in the EBITDA of other products and services. In 2017, the impact of positive non-recurring items was considerably smaller and, thus, EBITDA proved lower than in 2016.

Net profit decreased by 41.1% to 100.8 million euros (-70.2 million euros).

In terms of the key products, the Group's EBITDA was improved the most by shale oil EBITDA, which grew by 14.3 million euros.

Electricity EBITDA declined by 19.8 million euros, primarily due to a lower sales price and the impacts of derivative financial instruments.

Distribution EBITDA decreased by 5.6 million euros through a reduction of network charges.

#### GROUP'S SALES REVENUE BREAKDOWN AND CHANGE



#### GROUP'S EBITDA BREAKDOWN AND CHANGE



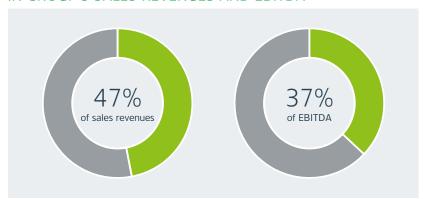
# Electricity

Through the years, electricity has been one of the main sources of Eesti Energia's sales revenue and profit. Also in 2017, we earned the largest share of our revenue from electricity sales.

#### Electricity Sales Revenue

Even though sales prices were more than 3% lower than in 2016, we were able to increase electricity sales revenue for the year by 0.6% (+2.0 million euros) to 350.8 million euros.

# SHARE OF ELECTRICITY PRODUCT IN GROUP'S SALES REVENUES AND EBITDA





# Average Sales Price of Electricity

The average sales price of electricity was 39.0 €/MWh, i.e. 3.4% (-1.4 €/MWh) lower than in 2016. The average sales price includes the impact of derivative transactions. Excluding the impact of derivative transactions, the average sales price of 2017 would have been 37.9 €/MWh, i.e. 4.8% (-1.9 €/MWh) lower than in 2016.

Gain on derivative transactions amounted to 9.5 million euros (+98.4%, +4.7 million euros).

#### Electricity Sales Volume and Eesti Energia's Market Share

In 2017, we sold 9,364 GWh of electricity (+408 GWh), 4.6% up on 2016. Retail sales rose by 0.1% to 6,203 GWh (+7 GWh) and wholesale sales grew by 14.5% to 3,161 GWh (+401 GWh).

Retail sales broke down between markets as follows: Estonia: 4,539 GWh (+47 GWh), Latvia 1,025 GWh (-127 GWh) and Lithuania 639 GWh (+86 GWh).

In terms of customers' electricity consumption volume, in 2017 Eesti Energia's market

share in Estonia was 60%, 0.7 percentage points up on 2016. In particular, we increased our market share in the large corporate customer segment.

In terms of customers' electricity consumption volume, in 2017 Eesti Energia's market share in Estonia was 60%

At the end of 2017, universal service was consumed at 19% of all electricity consumption points.

Customers trust Eesti Energia: at the yearend when contracts are mostly renewed, 98.4% of our Estonian customers decided to extend their electricity contract. Most of our customers prefer power plans with partly or fully fixed prices.

In Latvia, Lithuania and Poland, Eesti Energia operates under the Enefit brand. To meet our contractual sales commitments, we buy electricity from the power exchange.

In 2017, Eesti Energia's market shares in Latvia and Lithuania were 13.9% and 6.1% respectively. Our total share of the Baltic retail electricity market was 26%, which is comparable to 2016.

RETAIL SALES BROKE DOWN BETWEEN MARKETS AS FOLLOWS:

Estonia

4,539 GWh



LATVIA

1,025 GWh

(-127 GWh)



630 CM

639 GWh

(+86 GWh)



#### **Electricity Production Volume**

In 2017, we produced 9,736 GWh of electricity, 7.3% (+665 GWh) more than in 2016. Production growth was underpinned by lower fuel costs and world market prices of  $CO_2$  emission allowances in the first half of the year. The growth in production volume was also supported by the Auvere power plant's more stable and larger output (+305 GWh).



Renewable energy production grew by 6.2% to 403.7 GWh. Most of it, i.e. 214.9 GWh, was generated at wind farms which were the main source of growth in renewable energy production. Thanks to better wind conditions and higher operational reliability, their output grew by 15.8% (+29.4 GWh) year on year.

Renewable energy and efficient co-generation support received by the Group amounted to 16.3 million euros (+1.3 million euros).

#### **Electricity EBITDA**

Electricity EBITDA decreased by 16.8% to 98.0 million euros (-19.8 million euros).

The total impact of margin change on electricity EBITDA was -10.4 million euros. This includes a 1.9 euro decrease in average electricity sales revenue per megawatt hour (excluding the impact of derivative financial instruments), which had an impact of -16.3 million euros, and a decrease in average variable costs, which had an impact of +5.9 million euros. Variable costs declined thanks to smaller electricity purchase expenses and lower environmental charges; expenses on  $\mathrm{CO}_2$  emissions increased.

Growth in electricity sales volume improved EBITDA by 7.8 million euros.

#### KEY FIGURES OF ELECTRICITY PRODUCT

		2017	2016
Return on fixed assets*	%	7.7	9.7
Electricity EBITDA	€/MWh	11.5	14.4

<sup>\*</sup> Excluding impairment of generation assets recorded in December 2013 and December 2015.

#### **ELECTRICITY EBITDA DEVELOPMENT**



The impact of a change in fixed costs was 6.7 million euros. Among other items, the figure reflects a rise in repair and labour costs (impacts: -6.8 million euros and -4.1 million euros respectively) and a decrease in inventory-related fixed costs (impact: +4.6 million euros). Repair costs grew because more extensive scheduled repairs were carried out.

Growth in gain on derivative transactions improved EBITDA by 4.7 million euros.

The main items in other impacts of -15.3 million euros were a change in the value of derivative financial instruments (impact: -12.6 million euros), additions to environmental provisions (impact: -2.2 million euros) and inventory revaluations (impact: -0.5 million euros).

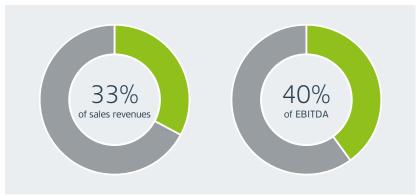
### Distribution

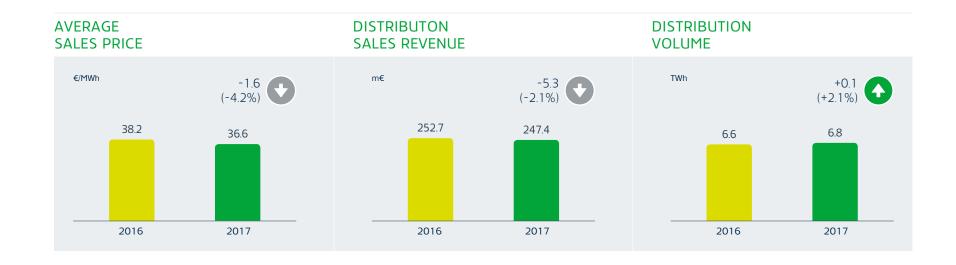
# Distribution Sales Revenue, Sales Volume and Price

In 2017, distribution sales revenue decreased by 2.1% although sales volume grew by 2.1%. Distribution sales revenue amounted to 247.4 million euros (-5.3 million euros) and sales volume was 6,757 GWh (+141.5 GWh). The growth in sales volume stemmed from a favourable economic environment and good weather conditions.

In 2017, the average electricity distribution price was 36.6 €/MWh (-1.6 €/MWh, -4.2%). During the year, we lowered the price twice: by 6.7% in July and by a further 2.3% in November.







#### **Network Losses**

Network losses totalled 343.4 GWh, i.e. 4.7% of electricity entering the network (2016: 293.4 GWh, i.e. 4.1%). Energy losses continue to be low thanks to more accurate metering achieved through the implementation of smart meters.

Network losses grew compared to 2016 because in November 2017 we recorded 34 GWh of unmetered electricity supplies, which had originated at the Laagri substation during the period 2015-2017. Elektrilevi detected the error in Elering's metering data in autumn 2017.

#### Supply Interruptions

In 2017, the average duration of unplanned interruptions was 105 minutes (2016: 163 minutes). The average duration of planned interruptions was 80 minutes (2016: 78 minutes). The duration of planned interruptions depends on the volume of scheduled maintenance and renewal operations.

The main factor that influences the number of interruptions is the weather which in 2017 was more favourable than a year earlier. Power outages can be reduced by replacing bare conductors with weather-resistant cables. At the end of 2017, 84% of Elektrilevi's low-voltage network and 37% of its medium-voltage network was weatherproof.

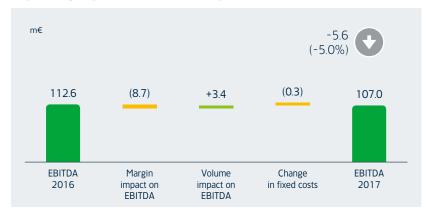
#### Distribution EBITDA

In 2017, distribution EBITDA decreased by 5.0% to 107.0 million euros (-5.6 million euros).

#### KEY FIGURES OF DISTRIBUTION PRODUCT

		2017	2016
Return on fixed assets	%	6.7	6.8
Distribution losses	GWh	343.5	293.4
SAIFI	index	1.9	1.6
SAIDI (unplanned)	index	105.3	163.0
SAIDI (planned)	index	79.6	78.3
Adjusted RAB	m€	777.7	757.0

#### DISTRIBUTION EBITDA DEVELOPMENT



The decrease in distribution EBITDA is mainly attributable to a lower average sales price of the distribution service. The total impact of margin change was -8.7 million euros. The figure reflects the combined effect of a price decrease (impact: -10.7 million euros) and lower variable costs (impact: +2.0 million euros).

Distribution sales volume grew by 2.1%, improving distribution EBITDA by 3.4 million euros.

Change in fixed costs, which remained at the same level as in 2016, had an impact of -0.3 million euros.

### Shale Oil

Shale oil production has strong potential but is strongly influenced by fluctuations in relevant market prices.

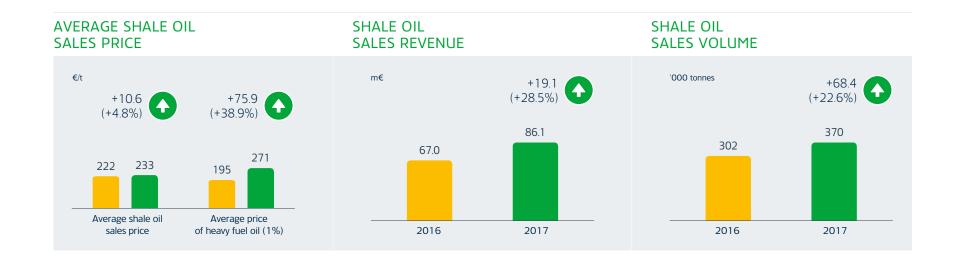
In 2017, market prices increased significantly, rising by around 39%.

#### Shale Oil Sales Revenue and Sales Volume

In 2017, we sold 370.2 thousand tonnes of shale oil which generated sales revenue of 86.1 million euros. Compared to 2016, shale oil sales revenue grew by 28.5% (+19.1 million euros) and sales volume increased by 22.6% (+68.4 thousand tonnes). Shale oil sales revenue and sales volume increased thanks to stronger output and higher market prices.

# SHARE OF SHALE OIL PRODUCT IN GROUP'S SALES REVENUES AND EBITDA





#### Average Sales Price of Shale Oil

In 2017, the average sales price of shale oil (including the impact of derivative financial instruments) rose by 4.8% to 232.5  $\[ < t \]$  (+10.6  $\[ < t \]$ ). The rise is mainly attributable to the recovery of the world market prices of liquid fuels.

Derivative transactions of the period resulted in a loss of  $28.4 \ \text{€/t}$ . In 2016, derivative transactions resulted in a gain of  $12.7 \ \text{€/t}$ . Excluding the impact of derivative transactions, in 2017 the average sales price of shale oil was  $260.9 \ \text{€/t}$  (+24.7%, +51.7  $\ \text{€/t}$ ). The world market price of the reference product, heavy fuel oil with 1% sulphur content, increased by 39% year on year.

#### Shale Oil Production Volume

In 2017, we produced 394.8 thousand tonnes of shale oil, 24.2% (+77.1 thousand tonnes) more than in 2016. The main reason for year-on-year output growth is the fact that in the first half of 2016, when market conditions were harsh, we carried out extensive capital repairs at our oil plants. An improvement in the efficiency of the Enefit280 plant also played a role.

The output of the new Enefit280 oil plant grew to 186.4 thousand tonnes (+45.7%, +58.4 thousand tonnes) and the output of the Enefit140 oil plant increased by 9.8% (+18.6 thousand tonnes).

#### Shale Oil EBITDA

In 2017, shale oil EBITDA grew by 149.6% to 23.9 million euros (+14.3 million euros).

Margin growth improved EBITDA by 23.6 million euros (+63.9 €/t). The figure includes the impacts of a higher average sales price of +19.1 million euros and lower variable costs of +4.5 million euros.

#### KEY FIGURES OF SHALE OIL PRODUCT

		2017	2016
Return on fixed assets*	%	1.3	-3.6
Shale oil EBITDA	€/t	64.6	31.7

<sup>\*</sup> Excluding impairment of assets recorded in December 2015 in connection with the Utah project

#### SHALE OIL EBITDA DEVELOPMENT



A decline in gain on derivative financial instruments reduced shale oil EBITDA by 14.4 million euros. In contrast to 2016 when derivative transactions yielded a gain of 3.8 million euros, in 2017 derivative transactions resulted in a loss of 10.5 million euros.

The impact of growth in shale oil sales volume was +7.1 million euros.

The impact of a change in fixed costs was -1.7 million euros. The largest item in the figure was a rise in labour costs (impact: -1.8 million euros).

The impact of other items on oil shale EBITDA of -0.3 million euros resulted mainly from a change in the value of derivative financial instruments (impact: -0.2 million euros).

### Other Products and Services

The segment of other products and services comprises sales of heat, natural gas and industrial equipment. The impacts of non-recurring items are also recognised in this segment.

Since October 2016, Eesti Energia has been selling natural gas to both corporate and household customers. In 2017, our retail sales of natural gas in the Estonian market totalled 524.5 GWh. In terms of customers' gas consumption, Eesti Energia's share of the Estonian gas market was 16%.

Since April 2017, we have also been selling natural gas to corporate customers in Latvia. In 2017, our retail sales of gas in the Latvian market totalled 288.6 GWh. In terms of customers' gas consumption, Eesti Energia's market share in the Latvian gas market was 7%.

In the third quarter, we also launched sales of natural gas in Poland where supply began in the fourth quarter.

#### Sales Revenue on Other Products and Services

In 2017, revenues on the sale of other products and services totalled 69.6 million euros, 5.3% (-3.9 million euros) down from 2016. The main reason for revenue decline was lower heat sales (-4.1 million euros). Heat sales volume decreased by 161 GWh (-14.1%). This was mainly due to the completion of the Väo-2 heat and power plant, which reduced demand for Eesti Energia's heat supplies to Tallinn.

On the other hand, revenue from the sale of natural gas grew by 2.9 million euros.

# SHARE OF OTHER PRODUCTS AND SERVICES IN GROUP'S SALES REVENUES AND EBITDA



#### SALES REVENUES FROM OTHER PRODUCTS AND SERVICES



#### EBITDA on Other Products and Services

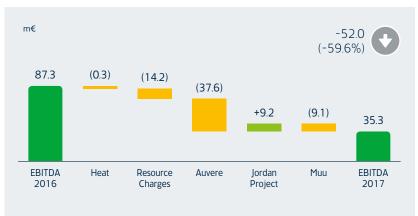
In 2017, EBITDA on other products and services decreased by 52.0 million euros to 35.3 million euros. The impact of a change in liquidated damages received for the delay in the delivery of the Auvere power plant was -37.6 million euros. In 2016, liquidated damages recognised in the EBITDA of other products and services totalled 68.6 million euros, including a one-off payment of 66 million euros. Liquidated damages agreed with the builder accrue on a monthly basis until the delivery of the plant. In 2017, their impact on EBITDA was 30.9 million euros.

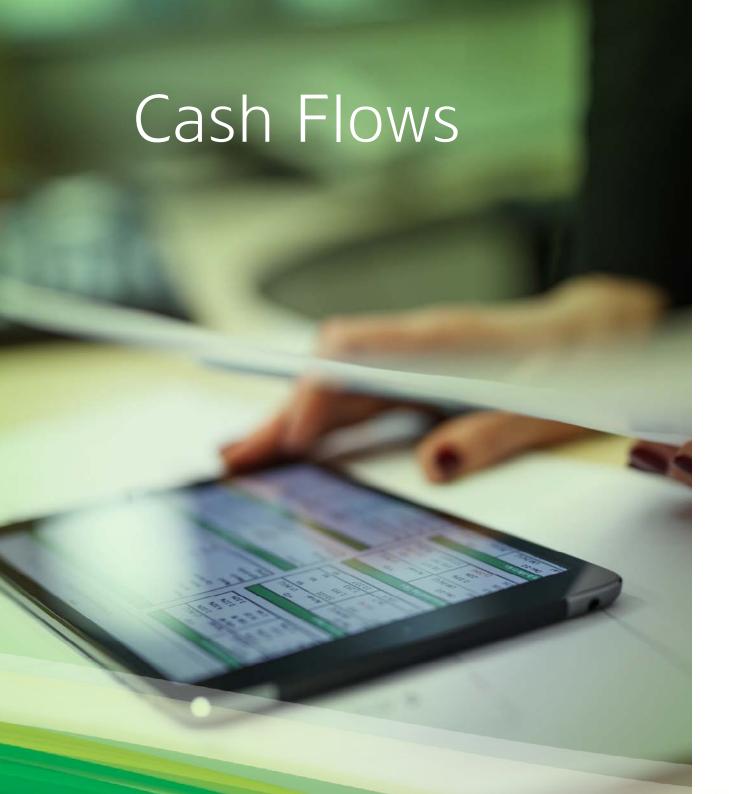
In 2016, retrospective reduction of the resource charge rate increased EBITDA by +14.2 million euros. In the comparison of the periods, the improvement of 2016 is presented as an item reducing EBITDA for 2017.

The net impact of reducing the Group's ownership interest in its oil shale electricity project in Jordan was +9.2 million euros.

Heat EBITDA decreased by 0.3 million euros due to a smaller sales volume. Other impacts lowered EBITDA for other products and services by 9.1 million euros.

#### OTHER EBITDA DEVELOPMENT





The Group's net operating cash flow for 2017 amounted to 268.8 million euros, being 1.8%, i.e. 4.7 million euros, larger than in 2016, which amounted to 264.2 million euros.

The Group's net operating cash flow proved larger than EBITDA (264.2 million euros) mainly due to changes in working capital. Receipt of liquidated damages for the delay in the delivery of the Auvere power plant increased working capital by 57.8 million euros.

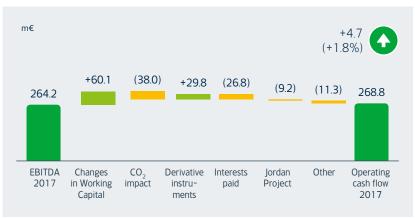
Settlements related to CO<sub>2</sub> emission allowances reduced operating cash flow relative to EBITDA by 38.0 million euros.

The impact of derivative financial instruments (excluding  ${\rm CO}_2$  instruments) was +29.8 million euros, consisting of the impacts of electricity derivatives of +24.2 million euros and oil derivatives of +5.6 million euros. The impact of derivative financial instruments comprises both non-monetary and monetary impacts on EBITDA and net operating cash flow.

Interest paid lowered operating cash flow by 26.8 million euros.

The Group's transaction in Jordan increased its EBITDA relative to operating cash flow by 9.2 million euros. Other impacts totalled

# EBITDA TO OPERATING CASH FLOWS DEVELOPMENT



-11.3 million euros, including the impact of taking Elektrilevi's deferred network connection fees of 7.6 million euros from liabilities to revenue.



Compared to 2016, net operating cash flow grew by 34.2% (+68.5 million euros).

Changes in working capital increased net operating cash flow compared to 2016 by 124.2 million euros. This was mainly due to a change in receivables. In 2016 receivables increased by 70.0 million euros whereas in 2017 receivables decreased by 54.1 million euros.

The impact of settlements related to  $CO_2$  emission allowances was -43.2 million euros. Above all, this resulted from growth in the quantity of allowances and their higher market price.

The impact of derivative financial instruments (excluding  $\rm CO_2$  instruments) was +44.3 million euros, including the impacts of electricity derivatives of +52.9 million euros and oil derivatives of -8.7 million euros.

In the first quarter of 2016 we paid income tax on dividends. In 2017, there was no such transaction, which increased net operating cash flow relative to 2016 by 14.9 million euros

The EBITDA component of operating cash flow for 2017 was influenced by the transaction in Jordan, which had an impact of +9.2 million euros. Other impacts totalled +0.7 million euros.

#### OPERATING CASH FLOW CHANGES





In 2017, our capital expenditures totalled 144.0 million euros (+2%, 3.3 million euros compared to 2016). Expenditures on the distribution network totalled 74.6 million euros (-16%, -13.9 million euros) and maintenance and repair expenditures (excluding the distribution network) amounted to 28.5 million euros (+32%, +6.8 million euros).

The largest development projects of 2017 are described below.

# Increasing the Share of Oil Shale Gas Burnt by Generating Unit 8 of the Eesti Power Plant

The procurement of the reconstruction of the unit began in 2015. In 2016, Enefit Energiatootmine signed an Engineering, Procurement

The purpose of the project is to reconstruct boiler 1 of generating unit 8 so that the share of oil shale gas in its fuel mix could be increased from the current 13% to 50%

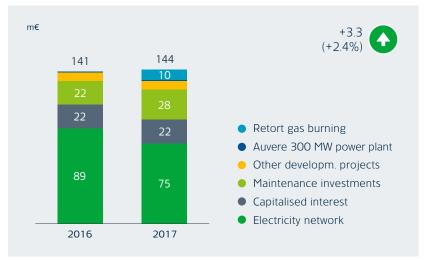
and Construction contract with the procurement winner, Sumitomo SHI FW. In spring 2017, a technical solution was prepared and from August to November construction work was carried out. In December 2017, adjustment and testing began which will continue through the first half of 2018. Sumitomo SHI FW is expected to deliver the work to Eesti Energia in the summer of 2018.

The budget of the project amounts to 15 million euros of which 10.3 million euros was invested in 2017 and around 2.7 million euros will be invested in 2018

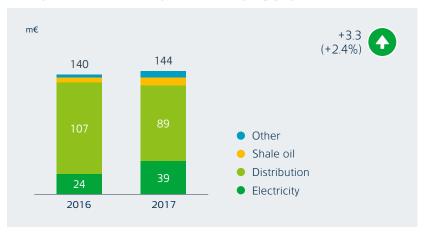
#### Auvere Power Plant

The construction of the Auvere power plant began in 2011. The plant began producing electricity in 2015 already but in the commissioning phase it appeared that under higher production capacities the plant's particle emissions exceeded regulatory limits. To reduce particle emissions, in 2017 the general contractor, General

#### CAPEX BREAKDOWN BY PROJECTS



#### INVESTMENT BREAKDOWN BY PRODUCTS



Electric, built additional fabric filters and ancillary equipment. During the construction period, the plant operated at lower capacity so that the permitted emission levels would not be exceeded.

Since August 2017, the builder has been adjusting the plant and the fabric filters and carrying out various tests, the results of which confirm that after the installation of additional equipment the emissions of the plant remain within regulatory limits.

Due to the deferral of commissioning, the final delivery of the power plant is expected to take place in the second quarter of 2018.

In 2016, General Electric and Eesti Energia signed an agreement under which General Electric undertook to pay Eesti Energia for the delay in the delivery of the Auvere power plant liquidated damages until

The Auvere power plant is a modern 300 MW circulating fluidised bed (CFB) power plant where oil shale fuel can be supplemented with wood chips (up to 50%), peat (up to 30%) and oil shale gas (up to 10%)

the full delivery of the plant. For 2017, General Electric had to pay 30.9 million euros of which 21.9 million euros was settled by the year-end.

The Auvere power plant is a modern 300 MW circulating fluidised bed (CFB) power plant where oil shale fuel can be supplemented with wood chips (up to 50%), peat (up to 30%) and oil shale gas (up to 10%). This allows reducing its emissions to the level of a modern gas-fired plant. The plant's maximum annual net generation is around

2.2 TWh, i.e. it can cover around one fourth of Estonia's annual electricity consumption.



Eesti Energia Annual Report 2017

In support of the construction of the Auvere power plant, the European Commission allowed Estonia to allocate to Eesti Energia 17.7 million tonnes of free CO2 emission allowances for the period 2013–2020. Of this amount, 5 million tonnes was received in April 2014, 4.3 million tonnes in April 2015, 3.6 million tonnes in April 2016 and 2.8 million tonnes in April 2017.

The budget of the project is 638 million euros. By the end of 2017, 568 million euros (89%) of this had been invested.

#### Improving Network Quality

In 2017, capital expenditures on maintaining and improving the quality of the distribution network totalled 74.6 million euros (2016: 88.5 million euros). During the year, 221 new substations and 1,572 km of network were built (2016: 253 substations and 2,699 km of network).

At the year-end, 84% of Elektrilevi's low-voltage network was weatherproof (at the end of 2016: 79%). Compared to 2016, the weatherproof network increased

In 2017, capital expenditures on maintaining and improving the quality of the distribution network totalled

74.6 million euros

by 1,483 km and the bare conductor network decreased by 1,706 km.

At the year-end, 64% of the entire low- and medium-voltage network was weatherproof (at the end of 2016: 61%). Compared to 2016, the weatherproof network increased by 1,572 km.





"Improving the efficiency and minimising the impacts of our production operations is among the priorities of Enefit Energiatootmine. Thanks to investments made in 2017, several important projects were completed. Some will continue in 2018. Besides making capital investments, we enhance our engineering and technical competencies."

#### ALEKSEI ZAIDENTSAL

Head of Technology and Investment Project Management Department of Enefit Energiatootmine

Silver award in the category "Value adding"

107



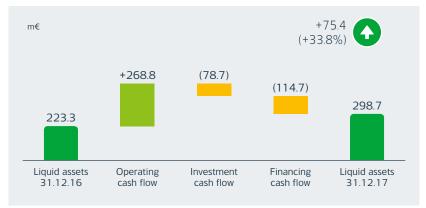
Eesti Energia's main sources of debt capital are the international bond market and loans from the European Investment Bank (EIB). These are complemented with liquidity loans and guarantee facilities obtained from regional banks.

At the end of 2017, the nominal value of the Group's borrowings was 932.9 million euros (999.2 million euros at the end of 2016). The amortised cost of the Group's borrowings was 881.1 million euros (939.9 million euros at the end of 2016). At the year-end, long-term borrowings comprised Eurobonds listed on the London Stock Exchange with a nominal value of 758.3 million euros and loans from EIB with a nominal value of 174.6 million euros.

In 2017, the Group made EIB loan repayments of 66.3 million euros. The figure includes early settlement of two floating-rate loans with the shortest maturity of 47.7 million euros in aggregate. The decision to repay the loans in the third quarter ahead of schedule was underpinned by the Group's temporarily high liquidity. Regular contractual repayments totalled 18.6 million euros.







At the end of 2017, the Group's cash and cash equivalents stood at 298.7 million euros. The Group's cash inflow was more positive than expected during the year and compared to the end of 2016 cash and cash equivalents grew by 75.4 million euros. The Group's stronger than expected cash flow is attri-

The Group's cash inflow was more positive than expected during the year

butable to the deferral of the payments to be made on the delivery of the Auvere power plant which were expected to be made in 2017, receipt of monthly liquidated damages from General Electric and year-on-year improvement in market prices which affect the Group. Due to a strong liquidity level, the Group is planning to redeem bonds of 152 million euros which will mature in October 2018 using its available liquid funds.

In addition to liquid assets, at the end of 2017 the Group had undrawn loans of 150 million euros maturing in July 2020 received from two regional banks (SEB and OP Corporate Bank) under revolving credit agreements.

In April 2017 Moody's confirmed Eesti Energia's Baa3 credit rating and in July 2017 Standard & Poor's confirmed Eesti Energia's BBB credit rating. At the end of 2017, the Group's credit ratings were BBB (Standard & Poor's, outlook negative) and Baa3 (Moody's, outlook stable).

At the end of 2017, the weighted average interest rate of Eesti Energia's borrowings was 2.76% (2.65% at the end of 2016). After the settlement of the floating-rate EIB loans in July 2017, the base rates of all of the Group's borrowings are fixed until maturity. All borrowings are denominated in euros.

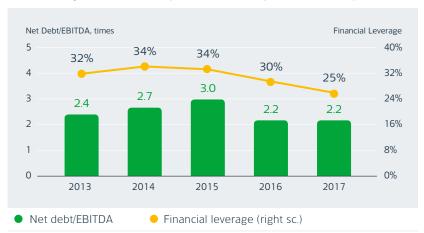
Eesti Energia's sole shareholder is the Republic of Estonia.

At the end of 2017, the Group's equity amounted to 1,763.9 million euros. Eesti Energia's sole shareholder is the Republic of Estonia. In December 2017, the Group paid the shareholder a net dividend of 47.0 million euros. In 2018, the owner expects from Eesti Energia a dividend of 15,8 million euros.

At the end of 2017, the Group's net debt amounted to 582.4 million euros (-134.2 million euros compared to the end of 2016). At the reporting date, the net debt to EBITDA ratio was 2.2 (2.2 at the end of 2016). The objective of Eesti Energia's financing policy is to maintain the net debt to EBITDA ratio below 3.5.

Under its loan agreements, Eesti Energia has undertaken to comply with certain financial covenants. At the end of 2017, the Group's financial indicators complied with all contractual covenants.

#### NET DEBT/EBITDA RATIO AND FINANCIAL LEVERAGE





According to our projections, in 2018 our revenue and capital expenditures will increase and EBITDA will decrease compared with 2017. Excluding the positive impacts on 2017 of the liquidated damages received for the Auvere power plant (30.9 million euros) and recognised gain on the transaction conducted in Jordan (9.2 million euros), EBITDA for 2018 will remain at the same level as in 2017.

Electricity sales revenue will be supported by the expected rise in the average sales price of electricity, which will also influence electricity EBITDA. We expect that our shale oil sales volume and EBITDA will increase, underpinned by a higher market price and growth in output.

Capital expenditures will grow compared to 2017, mainly in connection with the deferral of some of the maintenance and repair

investments of 2017 to 2018 and a rise in the volume of development projects. The largest planned capital investment of 2018 is the final payment for the Auvere power plant.

For 2017, we are planning to pay the owner a dividend of 15.8 million euros, which will give rise to income tax expense of 4.0 million euros. Final approval of the dividend distribution is at the discretion of the owner.



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# Consolidated Income statement

in million EUR	1 JANUARY - 3	1 JANUARY - 31 DECEMBER	
	2017	2016	
Revenue	753.9	742.1	5, 25
Other operating income	57.2	89.6	26
Change in inventories of finished goods and work-in-progress	1.5	(14.5)	11
Raw materials and consumables used	(325.9)	(290.0)	27
	(,	, , , , ,	28
Payroll expenses	(141.6)	(130.2)	
Depreciation and amortisation	(135.8)	(143.4)	5, 6, 8, 32
Other operating expenses	(80.9)	(69.7)	29
OPERATING PROFIT	128.4	183.9	
Financial income	0.8	0.3	30
Financial expenses	(19.7)	(14.1)	30
Net financial income (expense)	(18.9)	(13.8)	5, 30
Profit (loss) from associates using equity method	2.7	1.0	5, 9, 32
PROFIT BEFORE TAX	112.2	171.1	5
Corporate income tax expense	(11.4)	(0.1)	31
PROFIT FOR THE YEAR	100.8	171.0	
PROFIT ATTRIBUTABLE TO:			
Equity holder of the Parent Company	100.7	170.9	
Non-controlling interest	0.1	0.1	
Designation and share (aurea)	0.16	0.27	
Basic earnings per share (euros)		0.27	2.4
Diluted earnings per share (euros)	0.16	0.27	34

# Consolidated statement of Comprehensive Income

in million EUR	1 JANUARY - 31 DECEMBER		Note	
	2017	2016		
PROFIT FOR THE YEAR	100.8	171.0		
Other comprehensive income				
Items that may be reclassified subsequently to profit or loss:				
Revaluation of hedging instruments	16.3	(45.3)	20	
Currency translation differences attributable to foreign subsidiaries	(3.3)	0.9	20	
Other comprehensive income for the year	13.0	(44.4)		
TOTAL COMPREHENSIVE INCOME FOR THE YEAR PROFIT				
ATTRIBUTABLE TO:	113.8	126.6		
Equity holder of the Parent Company	113.7	126.5		
Non-controlling interest	0.1	0.1		

# Consolidated statement of Financial position

in million EUR	31. DEC	CEMBER	Note
	2017	2016	
ASSETS			
Non-current assets			
Property, plant and equipment	2,474.5	2,469.3	6
Intangible assets	38.7	40.2	8
Derivative financial instruments	0.2	-	12, 14, 15
Investments in associates	35.6	2.0	5,9
Long-term receivables	1.3	39.1	13
Total non-current assets	2,550.3	2,550.6	
Current assets			
Inventories	67.9	65.2	11
	97.1	47.3	16
Current intangible assets  Trade and other receivables	125.2	199.4	13
Derivative financial instruments	3.3	1.4	
Cash and cash equivalents	298.7	223.3	12, 14, 15 12, 15, 17
			12, 13, 17
Total current assets	592.2	536.6	
Total assets	3,142.5	3,087.2	5

in million EUR	31. DEC	31. DECEMBER	
	2017	2016	
EQUITY			
Capital and reserves attributable to equity holder of the Parent Company			
Share capital	621.6	621.6	18
Share premium	259.8	259.8	
Statutory reserve capital	62.1	62.1	18
Hedge reserve	(12.2)	(28.5)	20
Unrealised exchange rate differences	8.6	11.9	20
Retained earnings	823.6	770.2	18
Total equity and reserves attributable to equity holder of the Parent Company	1,763.5	1,697.1	
Non-controlling interest	0.4	0.9	
Total equity	1,763.9	1,698.0	
LIABILITIES			
Non-current liabilities			
Borrowings	711.2	920.6	12, 21
Other payables	1.5	1.8	22
Derivate financial instruments	-	6.1	12, 14
Deferred income	195.8	181.0	23
Provisions	32.5	30.7	24
Total non-current liabilities	941.0	1,140.2	
Current liabilities			
Borrowings	169.9	19.3	12, 21
Trade and other payables	177.6	155.4	22
Derivative financial instruments	18.2	16.5	12, 14
Deferred income	0.3	-	23
Provisions	71.6	57.8	24
Total current liabilities	437.6	249.0	
Total liabilities	1,378.6	1,389.2	
Total liabilities and equity	3,142.5	3,087.2	

# Consolidated statement of Cash Flows

in million EUR	1 JANUARY - 3	B1 DECEMBER	Note
	2017	2016	
Cash flows from operating activities			
Cash generated from operations	295.4	245.3	32
Interest and loan fees paid	(26.9)	(30.3)	
Interest received	0.3	0.2	
Corporate income tax paid	-	(14.9)	
Net cash generated from operating activities	268.8	200.3	
Cash flows from investing activities			
Purchase of property, plant and equipment and intangible assets	(113.0)	(126.7)	
Proceeds from connection and other fees	19.0	15.2	23
Proceeds from grants of property, plant and equipment	0.3	-	23, 26
Proceeds from sale of property, plant and equipment	2.2	4.9	6, 26
Dividends received from associates	1.6	2.0	
Contribution to the share capital of associates	(34.9)	-	35
Net change in restricted cash	-	(6.9)	13
Loans granted	(0.8)	(4.3)	35
Repayments of loans grante	28.4	-	35
Proceeds from sale of shares of associate	18.5	-	35
Net cash used in investing activities	(78.7)	(115.8)	
Cash flows from financing activities			
Loans received	0.2	-	21
Repayments of bank loans	(66.3)	(19.3)	21
Repayments of other loans	(0.6)	(0.7)	
Dividends paid	(47.0)	(O.1)	19, 31
Acquisition of non-controlling interest in a subsidiary	(1.0)	(0.9)	10
Net cash used in financing activities	(114.7)	(21.0)	
Net cash flows	75.4	63.5	
Cash and cash equivalents at the beginning of the period	223.3	159.8	12, 15, 17
Cash and cash equivalents at the beginning of the period	298.7	223.3	12, 13, 17
Net increase in cash and cash equivalents	75.4	63.5	12, 10, 17
Net increase in cash and cash equivalents	73.4	03.3	

# Consolidated statement of Changes in equity

in million EUR		ATTRIBUTABLI	E TO EQUITY H	OLDER OF THE	COMPANY		Non-	Total equity	Note
	Share capital	Share premium	Statutory reserve capital	Other reserves	Retained earnings	Total	controlling interest		
Equity as at 31 December 2015	621.6	259.8	62.1	27.8	599.5	1,570.8	1.1	1,571.9	
Profit for the year	_	-	_	-	170.9	170.9	0.1	171.0	
Other comprehensive income for the year	-	-	-	(44.4)	-	(44.4)	-	(44.4)	
Total comprehensive income for the year	-	-	-	(44.4)	170.9	126.5	0.1	126.6	
Increase of non-controlling interest due to the conversion of subsidiary's debt into equity	-	-	-	-	- (0.2)	- (0.2)	0.6	0.6	10
Acquisition of non-controlling interest of subsidiary	-	-	-	-	(0.2)	(0.2)	(0.9)	(1.1)	10
Total contributions by and distributions to owners of the company, recognised directly in equity	-	-	-	-	(0.2)	(0.2)	(0.3)	(0.5)	
Equity as at 31 December 2016	621.6	259.8	62.1	(16.6)	770.2	1,697.1	0.9	1,698.0	
Doe'd fan the cons	-	-	-	-	1007	1007	0.1	100.0	
Profit for the year  Other comprehensive income for the year	-	-	-	13.0	100.7	100.7 13.0	0.1	100.8 13.0	
Total comprehensive income for the year	-	-	-	13.0	100.7	113.7	0.1	113.8	
Dividends paid	-	-	-	-	(47.0)	(47.0)	-	(47.0)	19, 31
Acquisition of non-controlling interest of subsidiary	-	-	-	-	(0.3)	(0.3)	(0.6)	(0.9)	10
Total contributions by and distributions to owners of the company, recognised directly in equity	-	-	-	-	(47.3)	(47.3)	(0.6)	(47.9)	
Equity as at 31 December 2017	621.6	259.8	62.1	(3.6)	823.6	1,763.5	0.4	1,763.9	

Additional information about equity is disclosed in Note 18.

# Notes to the Consolidated Financial statements

# 1. General Information

The consolidated financial statements of Eesti Energia Group for the year ended 31 December 2017 include the financial information concerning Eesti Energia AS (parent company, legal form: public limited company) and its subsidiaries (the Group) and the Group's participation in associated entities.

Eesti Energia is an international energy company operating in the Baltic Sea region's energy market and the global oil market. Eesti Energia is engaged in mining oil shale, production of power, heat and oil, development of oil shale refining know-how and technologies as well as provision of services and products to customers. The company's objective is to enhance Estonia's primary natural resource in the most efficient manner possible and to reduce the ecological footprint of the oil shale-based energy sector. Besides oil shale, electricity is also generated from wind, water, mixed household waste and biomass. Outside Estonia, Eesti Energia operates under the Enefit trademark. The Group has investments in associates which operate in Jordan.

The registered address of the Parent Company is Lelle 22, Tallinn 11318, Republic of Estonia. The sole shareholder of Eesti Energia AS is the Republic of Estonia. The bonds of Eesti Energia AS are listed on London Stock Exchange.

These consolidated financial statements of the Group were authorised for issue by the Management Board on 21 February 2018. Under the Commercial Code of the Republic of Estonia, the annual report must additionally be approved by the Supervisory Board of the Parent Company and authorised for issue by the General Meeting of Shareholders.

# 2. Summary of significant accounting policies

The principal accounting policies used in the preparation of these consolidated financial statements are set out below. These accounting policies have been consistently used for all reporting periods presented, unless otherwise stated.

# 2.1 Basis of preparation

The consolidated financial statements of the Group have been prepared in accordance with the International Financial Reporting Standards (IFRS) and International Financial Reporting Interpritations Committee (IFRIC) Interpretations, as adopted by the European Union.

The consolidated financial statements have been prepared under the historical cost convention, except financial assets and liabilities (including derivative financial instruments) at fair value through profit and loss.

The preparation of financial statements in conformity with IFRS requires the use of certain critical accounting estimates. It also

requires management to exercise its judgement in the process of applying the Group's accounting policies. The areas involving a higher degree of judgement and where assumptions and estimates are significant to the consolidated financial statements are disclosed in Note 4.

# 2.2 Changes in accounting policy and disclosures

- (a) Adoption of New or Revised Standards and Interpretations
  The following new or revised standards and interpretations
  became effective for the Group from 1 January 2017:
- Disclosure Initiative Amendments to IAS 7 (effective for annual periods beginning on or after 1 January 2017). The amended IAS 7 will require disclosure of a reconciliation of movements in liabilities arising from financing activities. The Group disclosed a reconciliation of movements in liabilities arising from financing activities in the notes to the financial statement.

There are no other new or revised standards or interpretations that are effective for the first time for the financial year beginning on or after 1 January 2017 that would be expected to have a material impact to the Group.

# (b) New standards and interpretations not yet adopted

Certain new or revised standards and interpretations have been issued that are mandatory for the Group's annual periods beginning on or after 1 January 2017, and which the Group has not early adopted:

- IFRS 9 Financial Instruments: Classification and Measurement.
The standard will be mandatory for the Group from

- 1 January 2018. Key features of the new standard are:
- 1. Financial assets are required to be classified into three measurement categories: those to be measured subsequently at amortised cost, those to be measured subsequently at fair value through other comprehensive income (FVOCI) and those to be measured subsequently at fair value through profit or loss (FVPL).
- 2. Classification for debt instruments is driven by the entity's business model for managing the financial assets and whether the contractual cash flows represent solely payments of principal and interest (SPPI). If a debt instrument is held to collect, it may be carried at amortised cost if it also meets the SPPI requirement. Debt instruments that meet the SPPI requirement that are held in a portfolio where an entity both holds to collect assets' cash flows and sells assets may be classified as FVOCI. Financial assets that do not contain cash flows that are SPPI must be measured at FVPL (for example, derivatives). Embedded derivatives are no longer separated from financial assets but will be included in assessing the SPPI condition.
- 3. Investments in equity instruments are always measured at fair value. However, management can make an irrevocable election to present changes in fair value in other comprehensive income, provided the instrument is not held for trading. If the equity instrument is held for trading, changes in fair value are presented in profit or loss.

- 4. Most of the requirements in IAS 39 for classification and measurement of financial liabilities were carried forward unchanged to IFRS 9. The key change is that an entity will be required to present the effects of changes in own credit risk of financial liabilities designated at fair value through profit or loss in other comprehensive income.
- 5. IFRS 9 introduces a new model for the recognition of impairment losses the expected credit losses (ECL) model. There is a 'three stage' approach which is based on the change in credit quality of financial assets since initial recognition. In practice, the new rules mean that entities will have to record an immediate loss equal to the 12-month ECL on initial recognition of financial assets that are not credit impaired (or lifetime ECL for trade receivables). Where there has been a significant increase in credit risk, impairment is measured using lifetime ECL rather than 12-month ECL. The model includes operational simplifications for lease and trade receivables.
- 6. Hedge accounting requirements were amended to align accounting more closely with risk management. The standard provides entities with an accounting policy choice between applying the hedge accounting requirements of IFRS 9 and continuing to apply IAS 39 to all hedges because the standard currently does not address accounting for macro hedging.

The Group has assessed that IFRS 9 did not have a material impact its financial statements as at 1 January 2018 because impairment of receivables has been historically not material and cash and deposits are held in credit institutions with a high rating; therefore applying the expected loss model, including assessment of forward-looking information, did not cause material impairment losses. All the financial assets (except for derivatives meet SPPI requirement and are held to collect, thus will continue to be measured using the amortised cost method. Derivatives are accounted for in fair value through profit and loss (trading derivatives) or through other comprehensive income (hedge instruments) both according to existing standards and IFRS 9.

The Group has assessed that IFRS 9 will not impact the accounting for hedge instruments as the Group has confirmed that its current hedge relationships will qualify as continuing hedges upon the adoption of IFRS 9.

Sale or Contribution of Assets between an Investor and its Associate or Joint Venture – Amendments to IFRS 10 and IAS 28. The effective date will be determined by the IASB, the amendments are not yet adopted by the EU. These amendments address an inconsistency between the requirements in IFRS 10 and those in IAS 28 in dealing with the sale or contribution of assets between an investor and its associate or joint venture. The main consequence of the amendments is that a full gain or loss is recognised when a transaction involves a business. A partial gain or loss is recognised when a transaction involves assets that do not constitute a business, even if these assets are held by a subsidiary and the shares of the subsidiary are transferred during the transaction. The amendments may have an effect on the recognition of the Group's transactions with the associates.

- IFRS 16, Leases. The standard will be effective for annual periods beginning on or after 1 January 2019, not yet adopted by the EU. The new standard sets out the principles for the recognition, measurement, presentation and disclosure of leases. All leases result in the lessee obtaining the right to use an asset at the start of the lease and, if lease payments are made over time, also obtaining financing. Accordingly, IFRS 16 eliminates the classification of leases as either operating leases or finance leases as is required by IAS 17 and, instead, introduces a single lessee accounting model. Lessees will be required to recognise: (a) assets and liabilities for all leases with a term of more than 12 months, unless the underlying asset is of low value; and (b) depreciation of lease assets separately from interest on lease liabilities in the income statement. IFRS 16 substantially carries forward the lessor accounting requirements in IAS 17. Accordingly, a lessor continues to classify its leases as operating leases or finance leases, and to account for those two types of leases differently.

The Group has assessed that the new leasing standard is not expected to have a material impact as the lease payments are immaterial (refer to Note 7). The Group is in process of assessing whether certain agreements that are currently not accounted for as lease agreements, would be in the scope of the new standard, and if so, whether to apply the transition exemption in respect of reassessment of such agreements.

- IFRS 15 Revenue from Contracts with Customers. The standard will be effective for annual periods beginning on or after 1 January 2018. The new standard introduces the core principle that revenue must be recognised when the goods or services are transferred to the customer, at the transaction price. Any bundled goods or services that are distinct must be separately recognised, and any discounts or rebates on the contract price must generally be allocated to the separate elements. When the consideration varies for any reason, minimum amounts must be recognised if they are not at significant risk of reversal. Costs incurred to secure contracts with customers have to be capitalised and amortised over the period when the benefits of the contract are consumed.

The Group has assessed that the new revenue standard has an immaterial impact on the different revenue sources of the Group. The management has concluded that the connection fees do not represent a separate performance obligation from providing network service; therefore the Group will continue to defer the revenue from connection fees.

There are no other new or revised standards or interpretations that are not yet effective that would be expected to have a material impact on the Group.

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#### 2.3 Consolidation

#### (a) Subsidiaries

Subsidiaries are all entities over which the Group has control. The Group controls an entity when the Group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Subsidiaries are fully consolidated from the date on which control is transferred to the Group and are de-consolidated from the date that control ceases.

The Group applies the acquisition method to account for business combinations. The consideration transferred for the acquisition of a subsidiary is the fair values of the assets transferred, the liabilities incurred to the former owners of the acquiree and the equity interests issued by the Group. The consideration transferred includes the fair value of any asset or liability resulting from a contingent consideration arrangement. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date. The Group recognises any non-controlling interest in the acquiree on an acquisition-by acquisition basis, either at fair value or at the non-controlling interest's proportionate share of the recognised amounts of acquiree's identifiable net assets.

Acquisition-related costs are expensed as incurred.

If the business combination is achieved in stages, the acquisition date carrying value of the acquirer's previously held equity interest in the acquiree is remeasured to fair value at the acquisition date; any gains or losses arising from such re-measurement are recognised in profit or loss.

Any contingent consideration to be transferred by the Group is recognised at fair value at the acquisition date. Subsequent changes to the fair value of the contingent consideration that is deemed to be an asset or liability is recognised in accordance with IAS 39 either in profit or loss or as a change to other comprehensive income. Contingent consideration that is classified as equity is not remeasured, and its subsequent settlement is accounted for within equity.

Goodwill is initially measured as the excess of the aggregate of the consideration transferred and the fair value of non-controlling interest over the net identifiable assets acquired and liabilities assumed. If the consideration is lower than the fair value of the net assets of the subsidiary acquired, the difference is recognized in profit or loss.

In preparation of consolidated financial statements, the financial statements of the Parent Company and its subsidiaries are consolidated on a line-by-line basis. In preparation of consolidated financial statements, inter-company transactions, balances and unrealised gains on transactions between Group companies are eliminated. Unrealised losses are also eliminated. When necessary, amounts reported by subsidiaries have been adjusted to conform with the Group's accounting policies.

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In the Parent Company's separate financial statements the investments in subsidiaries are accounted for at cost less impairment.

# (b) Changes in ownership interests in subsidiaries without change of control

Transactions with non-controlling interests that do not result in loss of control are accounted for as equity transactions – that is, as transactions with the owners in their capacity as owners. The difference between fair value of any consideration paid and the relevant share acquired of the carrying value of net assets of the subsidiary is recorded in equity. Gains and losses on disposals to non-controlling interests are also recorded in equity.

#### (c) Disposal of subsidiaries

When the Group ceases to have control any retained interest in the entity is remeasured to its fair value at the date when the control is lost, with the change in carrying amount recognised in profit or loss. The fair value is the initial carrying amount for the purposes of subsequently accounting for the retained interest as an associate, joint venture or financial asset. In addition, any amounts previously recognised in other comprehensive income in respect of that entity are accounted for as if the Group had directly disposed of the related assets and liabilities. This may mean that amounts previously recognised in other comprehensive income are reclassified to profit or loss.

#### (d) Associates

Associates are all entities over which the Group has significant influence but not control, generally accompanying a shareholding of between 20% and 50% of the voting rights. Investments in associates are accounted for using the equity method of accounting and are initially recognised at cost, and the carrying amount is increased or decreased to recognise the investor's share of the profit or loss of the investee after the date of acquisition. The Group's investment in associates includes goodwill identified on acquisition.

If the ownership interest in an associate is reduced but significant influence is retained, only a proportionate share of the amounts previously recognised in other comprehensive income is reclassified to profit or loss where appropriate.

The Group's share of its associates' post-acquisition profits or losses is recognised in the income statement and its share of post-acquisition movements in the associates' other comprehensive income is recognised directly in other comprehensive income with a corresponding adjustment to the carrying amount of the investment. When the Group's share of losses in an associate equals or exceeds its interest in the associate, including any other unsecured receivables, the Group does not recognise any further losses, unless it has incurred legal or constructive obligations or made payments on behalf of the associate.

The Group determines at each reporting date whether there is any objective evidence that the investment in the associate is impaired. If this is the case, the Group calculates the amount of impairment as the difference between the recoverable amount of the associate and is carrying value and recognises the amount adjacent to "Share of other profit/loss of the associates" in the income statement.

Profits and losses resulting from upstream and downstream transactions between the Group and its associate are recognised in the Group's financial statements only to the extent of unrelated investor's interests in the associates. Unrealised losses are eliminated unless the transaction provides evidence of an impairment of the asset transferred. Accounting policies of associates have been changed where necessary to ensure consistency with the policies adopted by the Group.

# 2.4 Segment reporting

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision-maker. The chief operating decision-maker, who is responsible for allocating resources and assessing performance of the operating segments, is the Management Board of the Parent Company.

# 2.5 Foreign currency translation

# (a) Functional and presentation currency

Items included in the financial statements of each of the Group's entities are measured using the currency of the primary economic environment in which the entity operates ('the functional currency'). The consolidated financial statements are presented

in euros, which is the functional currency of the parent company and presentation currency of the Group. The financial statements have been rounded to the nearest million, unless stated otherwise.

#### (b) Transactions and balances

Foreign currency transactions are translated into the functional currency using the official exchange rates of the European Central Bank prevailing at the dates of the transactions or valuation where items are re-measured. When the European Central Bank does not quote a particular currency, the official exchange rate against the Euro of the central bank issuing the currency is used as the basis. Foreign exchange gains and losses resulting from the settlement of such transactions are recognised in the income statement. Monetary assets and liabilities denominated in foreign currencies are translated using the official exchange rate of the European Central Bank prevailing at the balance sheet date or on the basis of the official exchange rate of the central bank of the country issuing the foreign currency when the European Central Bank does not quote the particular currency. Foreign exchange gains and losses from translation are recognised in the income statement, except for gains and losses from the revaluation of cash flow hedging instruments recognised as effective hedges, which are recognised in other comprehensive income. Foreign exchange gains and losses that relate to borrowings and cash and cash equivalents are presented as finance income and costs; other foreign exchange gains and losses are presented as other operating income or other operating expenses.

#### (c) Group companies

The results and financial position of the subsidiaries that have a functional currency different from the presentation currency are translated into the presentation currency as follows:

- assets and liabilities are translated at the closing rate of the European Central Bank at the date of that balance sheet;
- income and expenses are translated at average exchange rates of the period (unless this average is not a reasonable approximation of the cumulative effect of the rates prevailing on the transaction dates, in which case income and expenses are translated at the rate on the dates of the transactions); and
- all resulting exchange differences are recognised in other comprehensive income.

Goodwill and fair value adjustments arising on the acquisition of a foreign subsidiary are treated as assets and liabilities of the foreign subsidiary and translated at the closing rate. Exchange differences arising are recognised in other comprehensive income.

None of the subsidiaries in the Group operates in a hyper-inflationary economy.

# 2.6 Classification of assets and liabilities as current or non-current

Assets and liabilities are classified in the statement of financial position as current or non-current. Assets expected to be disposed of during the next financial year or during the normal operating cycle of the Group are considered as current. Liabilities whose due date is during the next financial year or that are expected to be settled during the next financial year or during the normal

operating cycle of the Group are considered as current. All other assets and liabilities are classified as non-current.

# 2.7 Property, plant and equipment

Property, plant and equipment (PPE) are tangible items that are used in the operating activities of the Group with an expected useful life of over one year. Property, plant and equipment are presented in the statement of financial position at historical cost less any accumulated depreciation and any impairment losses. Historical cost includes expenditure that is directly attributable to the acquisition of the items. The cost of purchased non-current assets comprises the purchase price, transportation costs, installation, and other direct expenses related to the acquisition or implementation of the asset. The cost of the self-constructed items of property, plant and equipment includes the cost of materials, services and payroll expenses.

If an item of property, plant and equipment consists of components with significantly different useful lives, these components are depreciated as separate items of property, plant and equipment.

When the construction of an item of property, plant and equipment lasts for a substantial period of time and is funded with a loan or other debt instrument, the related borrowing costs (interest) are capitalised in the cost of the item being constructed. Borrowing costs are capitalised if the borrowing costs and expenditures for the asset have been incurred and the construction of the asset has commenced. Capitalisation of borrowing costs is ceased when the construction of the asset is completed or when the construction has been suspended for an extended period of time.

Subsequent expenditures incurred for items of property, plant and equipment are included in the carrying amount of the item of property, plant and equipment or are recognised as a separate asset only when it is probable that future economic benefits associated with the assets will flow to the Group and the cost of the asset can be measured reliably. The replaced component or proportion of the replaced item of PPE is de-recognised. Costs related to ongoing maintenance and repairs are charged to the income statement.

Land is not depreciated. Depreciation on other asses is calculated using the straight-line method to allocate their cost to their residual values over their estimated useful lives, as follows:

Buildings	30-40 years
Facilities, including	
electricity lines	12.5-50 years
other facilities	10-60 years
Machinery and equipment, including	
transmission equipment	5-45 years
power plant equipment	7–32 years
other machinery and equipment	3-30 years
Other property, plant and equipment	3-10 years

The expected useful lives of items of property, plant and equipment are reviewed during the annual stocktaking, when subsequent expenditures are recognised and in the case of significant changes in development plans. When the estimated useful life of an asset differs significantly from the previous estimate, it is treated as a change in the accounting estimate, and the remaining useful life of the asset is changed, as a result of which the depreciation charge of the following periods also changes.

An asset's carrying amount is written down to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount (Note 2.9).

To determine the gains and losses from the sale of property, plant and equipment, the carrying amount of the assets sold is subtracted from the proceeds. The resulting gains and losses are recognised in the income statement items under "Other operating income" or "Other operating expenses" respectively.

# 2.8 Intangible assets

Intangible assets are recognised in the statement of financial position only if the following conditions are met:

- the asset is controlled by the Group;
- it is probable that the future economic benefits that are attributable to the asset will flow to the Group;
- the cost of the asset can be measured reliably.

Intangible assets (except for goodwill) are amortised using the straight-line method over the useful life of the asset.

Intangible assets are tested for impairment if there are any impairment indicators, similarly to the testing of impairment for items of property, plant and equipment (except for goodwill). Intangible assets with indefinite useful lives and intangible assets not yet available for use are tested for impairment annually by comparing their carrying amount with their recoverable amount.

#### (a) Goodwill

Goodwill acquired in a business combination is not subject to amortisation. Instead, for the purpose of impairment testing, goodwill is allocated to cash-generating units and an impairment test is performed at the end of each reporting period (or more frequently if an event or change in circumstances demands it). The allocation is made to those cash-generating units that are expected to benefit from the synergies of the business combination in which the goodwill arose. Goodwill is allocated to a cash generating unit or a group of units, not larger than an operating segment. Goodwill is written down to its recoverable amount when this is lower than the carrying amount. Impairment losses on goodwill are not subsequently reversed. Goodwill is reported in the statement of financial position at the carrying amount (cost less any impairment losses) (Note 2.9). When determining gains and losses on the disposal of a subsidiary, the carrying amount of goodwill relating to the entity sold is regarded as part of the carrying amount of the subsidiary.

# (b) Development costs

Development costs are costs that are incurred in applying research findings for the development of specific new products or processes. Development costs are capitalised if all of the criteria for recognition specified in IAS 38 have been met. Capitalised development costs are amortised over the period during which the products are expected to be used. Expenses related to starting up a new business unity, research carried out for collecting new scientific or technical information and training costs are not capitalised.

#### (c) Contractual rights

Contractual rights acquired in a business combination are recognised at fair value on acquisition and are subsequently carried at cost less any accumulated amortisation. Contractual rights are amortised using the straight-line basis over the expected duration of the contractual right.

# (d) Computer software

Costs associated with the ongoing maintenance of computer software programs are recognised as an expense as incurred. Acquired computer software which is not an integral part of the related hardware is recognised as an intangible asset. Development costs that are directly attributable to the design and testing of identifiable software products controlled by the Group are recognised as intangible assets when the following criteria are met:

- it is technically feasible to complete the software product so that it will be available for use;
- management intends to complete the software product and use it;
- there is an ability to use the software product;
- it can be demonstrated how the software product will generate probable future economic benefits;
- adequate technical, financial and other resources for completing the development and using the software product are available;
- the expenditure attributable to the software product during its development can be reliably measured.

Capitalised software development costs include payroll expenses and an appropriate portion of related overheads. Other development expenditures that do not meet these criteria are recognised as an expense as incurred. Development costs previously recognised as an expense are not recognised as an asset in a subsequent period. Computer software development costs are amortised over their estimated useful lives (not exceeding 15 years) using the straight-line method.

# (e) Right of use of land

Payments made for rights of superficies and servitudes meeting the criteria for recognition as intangible assets are recognised as intangible assets. The costs related to rights of use of land are depreciated according to the contract period, not exceeding 99 years.

#### (f) Greenhouse gas emission allowances

Greenhouse gas emission allowances controllable by the Group are accounted for as current asset. Greenhouse gas emission allowances received from the state free of charge are recognised at zero cost. Any additionally purchased allowances are recognised at purchase cost or based on the revaluation method, if the Group has acquired the greenhouse gas emission allowances more than presumably needed and the Group has a plan to sell the allowances. The provision for greenhouse gas emissions is set up in the average price of the greenhouse gas emission allowances that are owned by the Group or that will be allocated to the Group free of charge (Note 2.24).

# (g) Exploration and evaluation assets of mineral resources

Expenditures that are included in the initial measurement of exploration and evaluation assets include the acquisition of rights to explore; topographical, geological, geochemical and geophysical studies; exploratory drilling; sampling and activities related to evaluation of the technical feasibility and economic viability of extracting a mineral resource.

Exploration and evaluation assets are initially recognised at cost. Depending on the nature of the asset, the exploration and evaluation assets are classified as intangible assets or items of property, plant and equipment. Expenditure on the construction, installation and completion of infrastructure facilities is capitalised within items of property, plant and equipment, other exploration and evaluation assets are recognised as intangible assets. After initial recognition, exploration and evaluation assets are measured using the cost model.

Exploration and evaluation assets are tested for impairment (Note 2.9) when one or more of the following circumstances are present:

- the period for which the Group has the right to explore in the specific area has expired during the period or will expire in the near future, and is not expected to be renewed;
- substantive expenditure on future exploration for and evaluation of mineral resources in the specific area is neither budgeted nor planned;
- exploration for and evaluation of mineral resources in the specific area have not led to the discovery of commercially viable quantities of mineral resources and the Group has decided to discontinue such activities in the specific area;
- sufficient data exist to indicate that, although a development in the specific area is likely to proceed, the carrying amount of the exploration and evaluation asset is unlikely to be recovered in full from successful development or by sale.

#### (h) Mining rights

Mining rights controllable by the Group are accounted for as current or non-current intangible assets depending on the expected realisation period. Mining rights received from the state free of charge are recognised at zero cost. The fee for extracted natural resources that is paid according to the volume of natural resources extracted is recognised in expenses as incurred (Note 2.22).

# 2.9 Impairment of non-financial assets

Assets that have indefinite useful lives (for example goodwill or intangible assets not ready to use) are not subject to amortisation but are tested annually for impairment. Assets that are subject to amortisation/depreciation and land are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of the asset's:

- fair value less costs of disposal; and
- value in use.

If the fair value of the asset less costs to sell cannot be determined reliably, the recoverable amount of the asset is its value in use. The value in use is calculated by discounting the expected future cash flows generated by the asset to their present value.

An impairment test is carried out if any of the following indicators of impairment exist:

- the market value of similar assets has decreased:

- the general economic environment and the market situation have worsened, and therefore it is likely that the future cash flows generated by assets will decrease;
- market interest rates have increased;
- the physical condition of the assets has considerably deteriorated:
- revenue generated by assets is lower than expected;
- results of some operating areas are worse than expected;
- the activities of a certain cash generating unit are planned to be terminated.

If the Group identifies any other evidence of impairment, an impairment test is performed.

Impairment tests are performed either for an individual asset or group of assets (cash-generating unit). A cash-generating unit is the smallest identifiable group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows generated by other assets or groups of assets. An impairment loss is recognised immediately as an expense in the income statement.

At the end of each reporting period, it is assessed whether there is any indication that the impairment loss recognised in the prior periods for an asset other than goodwill may no longer exist or may have decreased. If any such indication exists, the recoverable amount is estimated. According to the results of the estimate, the impairment loss can be partially or wholly reversed. An impairment loss recognised for goodwill shall not be reversed in a subsequent period.

# 2.10 Non-current assets (or disposal groups) held for sale

Non-current assets (or disposal groups) are classified as assets held for sale when their carrying amount is to be recovered principally through a sale transaction rather than through continuing use, and a sale is considered highly probable. They are stated at the lower of carrying amount and fair value less costs to sell.

#### 2.11 Financial assets

#### 2.11.1 Classification

The Group classifies its financial assets in the following categories: at fair value through profit or loss financial assets, loans and receivables. The classification depends on the purpose for which the financial assets were acquired. Management determines the classification of its financial assets at initial recognition.

# (a) Financial assets at fair value through profit or loss

Financial assets at fair value through profit or loss are financial assets held for trading, acquired for the purpose of selling in the short term. Derivatives are also recognised at fair value through profit or loss unless they are designated and effective hedging instruments. Assets in this category are classified as current assets.

# (b) Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. Loans and receivables are included in current assets, except for maturities greater than 12 months after the end of the reporting period. These are classified as non-current assets. The Group's loans and receivables are included in the statement

of financial position lines "Cash and cash equivalents", "Deposits at banks with maturities of more than three months", "Trade and other receivables".

#### 2.11.2 Recognition and measurement

Regular purchases and sales of financial assets are recognised or de-recognised using the trade-date accounting method. Investments which are not carried at fair value through profit or loss are initially recognised at fair value plus transaction costs. Financial assets carried at fair value through profit or loss are initially recognised at fair value, and transaction costs are expensed in the income statement. Financial assets are de-recognised when the rights to receive cash flows from the investments have expired or have been transferred and the Group has transferred substantially all risks and rewards incidental to ownership. Financial assets at fair value through profit or loss are subsequently carried at fair value. Loans and receivables are carried at amortised cost using the effective interest method.

Gains and losses arising from changes in the fair value of the financial assets at fair value through profit or loss are presented in the income statement line "Net financial income (-expense)" in the period in which they arise or are incurred (Note 30). Interest income on available-for-sale financial assets and on loans and receivables is reported in the income statement line "Financial income" (Note 30). The Group has not received any interest income or dividend income on financial assets recognised at fair value through profit or loss in the current and comparative reporting period.

The fair values of quoted investments are based on the bid prices prevailing at the end of the reporting period. To find the fair value of unquoted financial assets, various valuation techniques are used. Depending on the type of financial asset, these include the listed market prices of instruments that are substantially the same, quotes by intermediaries and estimated cash flow analysis. The Group uses several different measures and makes assumptions which are based on the market conditions at the end of each reporting period. The fair value of derivatives is based on the quotes of exchange as far as possible

# 2.12 Offsetting financial instruments

Financial assets and liabilities are offset and the net amount reported in the balance sheet when there is a legally enforceable right to offset the recognised amounts and there is an intention to settle on a net basis or realise the asset and settle the liability simultaneously. The legally enforceable right must not be contingent on future events and must be enforceable in the normal course of business and in the event of default, insolvency or bankruptcy of the company or the counterparty.

# 2.13 Impairment of financial assets

#### Assets carried at amortised cost

The Group assesses at the end of each reporting period whether there is objective evidence that a financial asset or group of financial assets is impaired. A financial asset or a group of financial assets is impaired and impairment losses are incurred only if there is objective evidence of impairment as a result of one or more events that occurred after the initial recognition of the asset (a loss event) and that loss event (or events) has an impact on the estimated future cash flows of the financial asset or group of financial assets that can be reliably estimated.

Evidence of impairment may include indications that the debtors or a group of debtors is experiencing significant financial difficulty, default or delinquency in interest or principal payments, the probability that they will enter bankruptcy or other financial reorganisation, and where observable data indicate that there is a measurable decrease in the estimated future cash flows, such as changes in arrears or economic conditions that correlate with defaults.

For loans and receivables category the amount of the loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows (excluding future credit losses that have not been incurred) discounted at the financial asset's original effective interest rate. The carrying amount of the asset is reduced and the amount of the loss is recognised in the consolidated income statement. If a loan or held-to-maturity investment has a variable interest rate, the discount rate for measuring any impairment loss is the current effective interest rate determined under the contract. As a practical expedient, the Group may measure impairment on the basis of an instrument's fair value using an observable market price.

If, in a subsequent period, the amount of the impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment was recognised (such as an improvement in the debtor's credit rating), the reversal of the previously recognised impairment loss is recognised in the consolidated income statement.

# 2.14 Derivative financial instruments and hedging activities

Derivatives are initially recognised at fair value on the date a derivative contract is entered into and are subsequently remeasured at their fair value. The method for recognising the resulting gain or loss depends on whether the derivative is designated as a hedging instrument, and if it is, the nature of the item being hedged. The Group uses cash flow hedging instruments in order to hedge the risk of changes of the prices of shale oil and electricity.

The Group documents at the inception of the transaction the relationship between hedging instruments and hedged items, and also its risk management objectives and strategy for undertaking various hedge transactions. The Group also documents its assessment and tests, both at hedge inception and on an ongoing basis, of whether the derivatives that are used in hedging transactions are highly effective in offsetting changes in the cash flows of the hedged items.

The fair values of derivative financial instruments used for hedging purposes are disclosed in Note 14. Movements on the hedge reserve in other comprehensive income are disclosed in Note 21. The full fair value of hedging derivatives is classified as a non-current asset or liability when the remaining maturity of the hedged item is more than 12 months and as a current asset or liability when the remaining maturity of the hedged item is less than 12 months. Derivatives held for trading are classified as current assets or liabilities.

#### (a) Cash flow hedge

The effective portion of changes in the fair value of derivatives (for options only the intrinsic value) that are designated and qualify as cash flow hedges is recognised in other comprehensive income. The gain or loss relating to the ineffective portion is recognised immediately in the income statement as a net amount within other operating income or operating expenses.

Amounts accumulated in equity are reclassified to profit or loss in the periods when the hedged item affects profit or loss (for instance, when the forecast sale that is hedged takes place).

When a hedging instrument expires or is sold, or when a hedge no longer meets the criteria for hedge accounting, any cumulative gain or loss existing in equity at that time remains in equity and is recognised when the forecast transaction is ultimately recognised in the income statement. When a forecast transaction is no longer expected to occur, the cumulative gain or loss that was reported in equity is immediately recognised as other operating income or operating expenses in the income statement.

Hedging instruments, which are combined from various components of derivative instruments, are recognised at fair value with changes through profit or loss until the acquisition of all components.

#### (b) Derivatives at fair value through profit or loss

Derivatives which are not designated as hedging instruments are carried at fair value through profit or loss. The gains and losses arising from changes in the fair value of such derivatives are included within other operating income or operating expenses in the income statement.

#### (c) Derivatives at own use

Derivative contracts that are entered into use and continue to be held for the purpose of the receipt of the underlying commodity in accordance with the Group's expected purchase requirements are accounted for as regular purchases of underlying commodities. For example, any futures contracts for buying greenhouse gas emissions allowances that are necessary for the Group's electricity production purposes are not recognised as derivatives on the balance sheet; the emissions allowances purchased are recognised as intangible assets when settlement of future contract occurs and emissions allowances are transferred to the Group. Any payments made to the counterparty before the settlement date are recognised as prepayments for intangible assets.

If the terms of the contracts permit either party to settle it net in cash or another financial instrument or the commodity that is the subject of the contracts is readily convertible to cash, the contracts are evaluated to see if they qualify for own use treatment. Contracts that do not qualify for own use treatment, are accounted for as derivatives as described above.

#### 2.15 Inventories

Inventories are stated in the statement of financial position at the lower of cost or net realisable value. The weighted average method is used to expense inventories. The cost of finished goods and work in progress comprises raw materials, direct labour, other direct costs and related production overheads (based on normal operating capacity), but it excludes borrowing costs. The cost of raw and other materials consists of the purchase price, expenditure on transportation and other costs directly related to the purchase.

Net realisable value is the estimated selling price in the ordinary course of business, less applicable variable selling expenses.

#### 2.16 Trade receivables

Trade receivables are amounts due from customers for merchandise sold or services performed in the ordinary course of business.

Trade receivables are recognised initially at fair value and subsequently measured at amortised cost using the effective interest rate method, less provision for impairment. A provision for the impairment of trade receivables is established when there is objective evidence that the Group will not be able to collect all amounts due according to the original terms of receivables. Significant financial difficulties of the debtor, the probability that the debtor will enter bankruptcy or financial reorganisation, and default or delinquency in payments (more than 90 days overdue) are considered indicators that the trade receivable is impaired. Material receivables are assessed individually. The rest of the receivables are collectively assessed for impairment, using previous years' experience of impairment which is adjusted to take account of current conditions. The amount of the provision is the difference between the asset's carrying amount and the present value of estimated future cash flows, discounted at the original effective interest rate. The carrying amount of the asset is reduced through the use of an allowance account, and the amount of the loss is recognised in the income statement within other operating expenses. When a receivable is classified as uncollectible, it is written off against the allowance account for trade receivables. Subsequent recoveries of amounts previously written off are credited in the income statement against other operating expenses.

If collection is expected within one year or less, the receivables are classified as current assets. If not, they are presented as non-current assets. Long-term receivables from customers are recognised at the present value of the collectible amount. The difference between the nominal value and the present value of the collectible receivable is recognised as interest income during the period remaining until the maturity date using the effective interest rate

# 2.17 Cash and cash equivalents

Cash and cash equivalents include bank account balances and cash in transit as well as short-term highly liquid investments in banks.

# 2.18 Share capital and statutory reserve capital

Ordinary shares are classified as equity. No preference shares have been issued. Unavoidable incremental costs directly attributable to the issue of new ordinary shares are shown in equity as a deduction from the proceeds. Shares approved at the General Meeting but not yet registered in the Commercial Registry are recognised in the equity line "Unregistered share capital".

The Commercial Code requires the Parent Company to set up statutory reserve capital from annual net profit allocations, the minimum amount of which is 1/10 of share capital. The amount of allocation to annual statutory reserve capital is 1/20 of the net profit of the financial year until the reserve reaches the limit set for reserve capital. Reserve capital may be used to cover a loss that cannot be covered from distributable equity, or to increase share capital.

### 2.19 Trade payables

Trade payables are obligations to pay for goods or services that have been acquired in the ordinary course of business from suppliers. Accounts payables are classified as current liabilities if payment is due within one year or less. If not, they are presented as non-current liabilities. Trade payables are recognised initially at fair value and subsequently measured at amortised cost using the effective interest rate method.

# 2.20 Borrowings

Borrowings are recognised initially at fair value, net of transaction costs incurred, and are subsequently carried at amortised cost. Any difference between the proceeds (net of transaction costs) and the redemption value is recognised in the income statement over the period of the borrowing using the effective interest method.

Fees paid on the establishment of loan facilities are recognised as transaction costs of the loan to the extent that it is probable that some or all of the facility will be drawn down. In this case, the fee is deferred and treated as a transaction cost when the draw-down occurs.

Borrowings are recognised as current liabilities unless the Group has an unconditional right to defer the settlement of the liability for at least 12 months after the end of reporting period.

# 2.21 Borrowing costs

General and specific borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to

get ready for their intended use or sale, are added to the cost of those assets, until such time as the assets are substantially ready for their intended use or sale.

Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalisation.

All other borrowing costs are recognised in profit or loss in the period in which they are incurred.

The capitalised borrowing costs are recognised in the statement of cash flows under item "Interest and loan fees paid".

#### 2.22 Taxation

#### (a) Corporate income tax on dividends in Estonia

Under the Income Tax Act, the annual profit earned by entities is not taxed in Estonia. Corporate income tax is paid on dividends, fringe benefits, gifts, donations, costs of entertaining guests, non-business related disbursements and adjustments of the transfer price. From 1 January 2015, the tax rate on the net dividends paid out of retained earnings is 20/80. In certain circumstances, it is possible to distribute dividends without any additional income tax expense. The corporate income tax arising from the payment of dividends is accounted for as a liability and expense in the period in which dividends are declared, regardless of the actual payment date or the period for which the dividends are paid. The income tax liability is due on the 10th day of the month following the payment of dividends.

Due to the nature of the taxation system, the entities registered in Estonia do not have any differences between the tax bases of assets and their carrying amounts and hence, no deferred income tax assets and liabilities arise. A contingent income tax liability which would arise upon the payment of dividends is not recognised in the statement of financial position. The maximum income tax liability which would accompany the distribution of retained earnings is disclosed in the notes to the financial statement.

From 2019 a lower income tax rate 14/86 has implemented for regular profit distributions. Profit distributions are considered regular if the amount of the distribution does not exceed the company's last three years' average profit distributions subject to taxation in Estonia. The first year to be included in such income tax calculations will be 2018.

#### (b) Other taxes in Estonia

The following taxes had an effect on the Group's expenses:

Tax	Tax rate
Social security tax	33% of the payroll paid to employees and of fringe benefits
Unemployment insurance tax	0,8% of the payroll paid to employees
Fringe benefit income tax	20/80 of fringe benefits paid to employees
Pollution charges	Paid for contamination of the air, water, ground water, soil and waste storage, and based on tonnage and type of waste
Fee for extraction right for oil shale	0.275 euros per tonne of oil shale extracted (in 2016 0.275 euros per tonne of oil shale extracted)
Water utilisation charges	1.62-171.78 euros per 1000 m³ of pond or ground water used (in 2016 1.61-170.08 euros per 1000 m³ of pond or ground water used).
Land tax	0.1–2.5% on taxable value of land per annum
Tax on heavy trucks	3.50 – 232.60 euros per truck per quarter
Excise tax on electricity	4.47 euros per MWh of electricity
Excise tax on natural gas	40.52 euros per 1000 m³ of natural gas (in 2016 33.77 euros per 1000 m³ of natural gas)
Excise tax on shale oil	57.0 euros per 1000 kg of shale oil (In 2016 57.0 euros per 1000 kg of shale oil)
Excise tax on oil shale	0.93 euros per giga-joule (in 2016 0.93 euros per giga-joule)
Corporate income tax on non-business related expenses	20/80 on non-business related expenses

#### (c) Income tax rates in foreign countries in which the Group operates

Income earned by resident legal persons is taxed at an income tax rate of 15%
Income earned by resident legal persons is taxed at an income tax rate of 15%
Income earned by resident legal persons is taxed at an income tax rate of 28.425% (corporate and trade tax combined)
Income earned by resident legal persons is taxed at an income tax rate of 35%
Income earned by resident legal persons is taxed at an income tax rate of 24%. Jordan Oil Shale Energy is fully and Attarat Power company in the 75% extent exempted from income tax according to the contracts concluded with the Hashemite Kingdom of Jordan.
Income earned by resident legal persons is taxed at an income tax rate of 25%
Income earned by resident legal persons is taxed at an income tax rate of 19%
Income earned by resident legal persons is taxed at an income tax rate of 20%
Income earned by resident legal persons is taxed at an income tax rate of 22%

#### (d) Deferred income tax

Deferred income tax is recognised in foreign subsidiaries on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the consolidated financial statements. Deferred income tax assets and liabilities are recognised under the liability method. Deferred tax liabilities are not recognised if they arise from the initial recognition of goodwill; deferred income tax is not accounted for if it arises from initial recognition of an asset and liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss. Deferred income tax is determined using tax rates that have been enacted or substantively enacted by the balance sheet date and are expected to apply when the related deferred income tax asset is realised or the deferred income tax liability is settled.

Deferred income tax assets are recognised on deductible temporary differences arising from investments in subsidiaries and associates only to the extent that it is probable the temporary difference will reverse in the future and there is sufficient taxable profit available against which the temporary difference can be utilised

As at 31 December 2017 and 31 December 2016, the Group had neither any deferred income tax assets nor deferred income tax liabilities.

# 2.23 Employee benefits

#### Short-term employee benefits

Short-term employee benefits include wages and salaries as well as social security taxes, benefits related to the temporary halting of the employment contract (holiday pay or other similar pay) when it is assumed that the temporary halting of the employment contract will occur within 12 months from the end of the period in which the employee worked, and other benefits payable after the end of the period during which the employee worked.

If during the reporting period the employee has provided services in return for which benefits are expected to be paid, the Group will set up a liability (accrued expense) for the amount of the forecast benefit, from which all paid amounts are deducted.

#### Termination benefits

Termination benefits are payable when employment is terminated by the Group before the normal retirement date, or whenever an employee accepts voluntary redundancy in exchange for these benefits. The Group recognises termination benefits at the earlier of the following dates: (a) when the Group can no longer withdraw the offer of those benefits; and (b) when the Group recognises costs for a restructuring that is within the scope of IAS 37 and involves the payment of termination benefits. In the case of an offer made to encourage voluntary redundancy, the termination benefits are measured based on the number of employees expected to accept the offer. Benefits falling due more than 12 months after the end of the reporting period are discounted to their present value. Redundancy provisions are set up for redundancies occurring in the course of restructuring (Note 2.24).

#### Other employee benefits

Provisions have been set up to cover the benefits arising from collective agreements and other agreements and the compensation for work-related injuries (Note 2.24).

#### 2.24 Provisions

Provisions are recognised when the Group has a present legal or constructive obligation as a result of past events, it is probable that an outflow of resources will be required to settle the obligation, and the amount has been reliably estimated. Provisions are measured at the present value of the expenditures expected to be required to settle the obligation using an interest rate that reflects current market assessments of the time value of money and the risks specific to the obligation. The increase in the provision due to the passage of time is recognised as interest expense.

Provisions are recognised based on management's estimates. If required, independent experts may be involved. Provisions are not recognised for future operating losses.

Where there are a number of similar obligations, the likelihood that an outflow will be required in settlement is determined by considering the class of obligations as a whole. Although the likelihood of an outflow of resources may be small for any individual item, it may be probable that some outflow of resources will be needed to settle the class of obligations as a whole. If that is the case, the provision is recognised (if the other recognition criteria are met).

Provisions are reviewed at the end of each reporting period and adjusted to reflect current best estimates. The costs related to setting up provisions are charged to operating expenses or are included within the acquisition cost of an item of PPE when the provision is related to the dismantlement, removal or restoration or other obligation, incurred either when the item is acquired or as a consequence of use of the item during a particular period.

Provisions are used only to cover the expenses for which they were set up.

Where some or all of the expenditure required to settle a provision is expected to be reimbursed by another party, the reimbursement shall be recognised when, and only when, it is virtually certain that reimbursement will be received if the Group settles the obligation. The reimbursement shall be treated as a separate asset. The amount of the reimbursement may not exceed the amount of the provision.

# (a) Provisions for post-employment benefits and work-related injury compensation

If the Group has the obligation to pay post-employment benefits to their former employees, a provision is set up to cover these costs. The provision is based on the terms of the obligation and the estimated number of people eligible for the compensation.

Provisions for work-related injuries are recognised to cover expenditure related to future payments to former employees according to court orders over the estimated period of such an obligation.

#### (b) Environmental protection provisions

Environmental protection provisions are recognised to cover environmental damages that have occurred before the end of the reporting period when this is required by law or when the Group's past environmental policies have demonstrated that the Group has a constructive present obligation to liquidate this environmental damage. Experts' opinions and prior experience in performing environmental work are used to set up the provisions.

# (c) Provisions for the termination of mining operations

Provisions for the termination of mining operations are set up to cover the costs related to the closing of mines and quarries, if it is required by law. Experts' opinion and prior experience gained from the termination of mining operations is used to set up the provisions.

#### (d) Provision for termination benefits

Provisions for termination benefits have been recognised to cover the costs related to employee redundancy if the Group has announced a restructuring plan, identifying the expenditure, the business or part of a business concerned, the principal locations affected, the location, function and approximate number of employees who will be compensated for termination of their services, the timing of the implementation of the plan; and if the Group has raised a valid expectation among those affected that it will carry out the restructuring by starting to implement that plan or announcing its main features to those affected by it.

#### (e) Provision for the dismantling cost of assets

The provisions for the dismantling of assets are set up to cover the estimated costs relating to the future dismantling of assets if the dismantling of assets is required by law or if the Group's past practice has demonstrated that the Group has a present constructive obligation to incur these costs. The present value of the dismantling costs of assets is included within the cost of property, plant and equipment.

#### (f) Provisions for greenhouse gas emissions

A provision for greenhouse gas emissions is set up in the average price of the greenhouse gas emission allowances that are owned by the Group or that will be allocated to the Group free of charge to meet the obligations arising from legislation relating to greenhouse gas emissions. When the Group surrenders the greenhouse gas emission allowances to the state for the greenhouse gases emitted, both the provision and the intangible assets are reduced by equal quantities and amounts (Note 2.8).

# (g) Provisions for onerous contracts

A provision for onerous contract is set up if the Group has concluded a contract in which the unavoidable costs of meeting the obligations under the contract exceed the economic benefits expected to be received under it. The provision is set up in the amount which is the lower of the cost of fulfilling it (revenues received less expenses occurred of fulfilling the contract) and any compensation or penalties arising from failure to fulfill it.

# (h) Provision for obligations arising from treaties

Provision for obligations arising from treaties is set up to meet the obligations arising from treaties, in which realization of timing or amount is uncertain.

# 2.25 Contingent liabilities

Possible obligations where it is not probable that an outflow of resources will be required to settle the obligation, or where the amount of the obligation cannot be measured with sufficient reliability, but which may become in certain circumstances liabilities, are disclosed in the notes to the financial statements as contingent liabilities.

# 2.26 Revenue recognition

Revenue is measured at the fair value of the consideration received or receivable for the sale of goods and provision of services in the ordinary course of business. Revenue is shown net of value-added tax and discounts after the elimination of intra-group transactions. Revenue is recognised only when the amount of revenue can be reliably measured and it is probable that future economic benefits will flow to the Group, all significant risks and rewards incidental to ownership have been transferred from the seller to the buyer, and the additional criteria presented below have been met. The amount of revenue can be measured reliably only when all the conditions related to the transaction are evident.

# (a) Sale of electricity and grid services

Revenue is recognised on the basis of meter readings of customers. Meter readings are reported by customers, read by remote counter reading systems based on actual consumption, or estimated based on past consumption patterns. Additionally, estimates are made of the potential impact of readings either not reported or incorrectly reported by the end of the reporting period, resulting in a more precise estimation of the actual consumption and sale of electricity.

#### (b) Recognition of connection fees

When connecting to the electricity network, the clients must pay a connection fee based on the actual costs of infrastructure to be built in order to connect them to the network. The revenue from connection fees is deferred and recognised as income over the estimated average useful lives of assets acquired for the connections. The average amortisation period of connection fees is 32 years. Deferred connection fees are carried in the statement of financial position as long-term deferred income.

# (c) Revenue recognition under the stage of completion method

Revenue from unfinished and finished but undelivered services is recognised using the stage of completion method. Under this method, contract revenue and profit is recognised in the proportion and in the accounting periods in which the contract costs associated with the service contract were incurred. Unbilled but recognised revenue is recorded as accrued income in the statement of financial position. Where progress billings at the end of the reporting period exceed costs incurred plus recognised profits, the balance is shown as due to customers on construction contracts, under accrued expenses.

# (d) Interest income

Interest income is recognised when it is probable that the economic benefits associated with the transaction will flow to the Group and the amount of revenue can be measured reliably. Interest income is recognised using the effective interest rate, unless the receipt of interest is uncertain. In such cases the interest income is accounted for on a cash basis

#### (e) Dividend income

Dividend income is recognised when the Group has established the right to receive payment.

# 2.27 Government grants

Government grants are recognised at fair value, when there is reasonable assurance that the grant will be received and the Group will comply with all attached conditions. Grants are recognised as income over the periods necessary to match them with the costs which they are intended to compensate.

Assets acquired through government grants are initially recognised in the statement of financial position at cost. The amount received as a government grant is recognised as deferred income related to the government grant. Related assets are depreciated and the grant is recognised as income over the estimated useful life of the depreciable asset.

#### 2.28 Leases

A lease is an agreement whereby the lessor conveys to the lessee the right to use an asset for an agreed period of time in return for a payment or series of payments. Leases which transfer all significant risks and rewards incidental to ownership to the lessee are classified as finance leases. Other leases are classified as operating leases.

#### (a) The Group as the lessee

Payments made under operating leases (net of any incentives received from the lessor) are charged to the income statement on a straight-line basis over the period of the lease.

### (b) The Group as the lessor

The accounting policies for items of property, plant and equipment are applied to assets leased out under operating lease terms. Rental income is recognised in the income statement on a straight-line basis over the lease term.

#### 2.29 Dividend distribution

Dividends are recognised as a reduction of retained earnings and a payable to shareholders at the moment the dividends are announced.

# 2.30 Related party transactions

For the purposes of preparing the consolidated financial statements, the related parties include the associates of the Group, the members of the Supervisory and Management Boards of Eesti Energia AS and other individuals and entities who can control or significantly influence the Group's financial and operating decisions. As the shares of Eesti Energia AS belong 100% to the Republic of Estonia, the related parties also include entities under the control or significant influence of the state.

# 3. Financial risk management

#### 3.1 Financial risks

The Group's activities are accompanied by a variety of financial risks: market risk (which includes currency risk, cash flow and fair value interest rate risk and price risk), credit risk and liquidity risk. The Group's overall risk management programme focuses on the unpredictability of financial markets and seeks to minimise adverse effects on the Group's financial performance. The Group uses derivative financial instruments to hedge certain risk exposures.

The purpose of financial risk management is to mitigate financial risks and minimise the volatility of financial results. The risk and internal audit department under the Chairman of the Management Board and auditing committee is engaged in risk management and is responsible for the development, implementation and maintenance of the Group's risk management system. The Group's financial risks are managed in accordance with the principles established by the Management Board at the Group level. The Group's liquidity, interest rate and currency risks are managed in the finance department of the Parent Company.

#### 3.1.1 Market risks

# 3.1.1.1 Currency risk

Currency risk is the risk that the fair value of financial instruments or cash flows will fluctuate in the future due to exchange rate changes. The financial assets and liabilities denominated in euros are considered to be free of currency risk. All long-term borrowings and electricity export contracts are also concluded in euros to avoid currency risk.

The Group's main currency risk arises in connection with the loan granted to associate denominated in US dollars (Note 13). In addition, a few other procurement and other contracts have been concluded in a currency other than the functional currency of the Group companies. The majority of these transactions included the transactions concluded in US dollars.

At the end of reporting period, the Group had the following balances of financial assets and liabilities denominated in US dollars.

in million EUR	31. DECEMBER		
	2017	2016	
Cash and cash equivalents (Note 17)	2.7	0.3	
Trade and other receivables (Note 35)	7.1	48.5	
Trade and other payables	3.5	0.3	

Had the US dollar's exchange rate at 31 December 2017 been 14% (31 December 2016: 10%) higher or lower (with other factors remaining constant), the Group's profit for the financial year would have been EUR 0.4 million higher/lower (2016: EUR 4.6 million higher/lower) as a result of the revaluation of the balances of cash and cash equivalents, trade and other receivables and trade and other payables.

# 3.1.1.2 Price risk

Price risk is the risk that the fair value and cash flows of financial instruments will fluctuate in the future for reasons other than changes in the market prices resulting from interest rate risk or foreign exchange risk. The sale of goods produced and services provided by the Group under free market conditions, the purchase of resources used in production, and financial assets recognised at fair value through profit or loss are impacted by price risk.

# 3.1.1.2.1 The price risk of commodities

The most significant price risks of goods and services are the price risks related to the sale of electricity and shale oil, and to the purchase of greenhouse gas emission allowances. The Group uses various derivatives to hedge the price risks related to the sale of goods and services and purchase and sale of greenhouse gas emission allowances. To hedge the risk related to changes in the price of electricity, forward contracts are used which are entered into for the sale of a specific volume of electricity at each trading hour. The volume of derivative transactions for sales of electricity through the power exchange Nord Pool depends on the price difference between the market price of electricity and the price level of greenhouse gas emission allowances and the planned production capacity of electrical energy.

Swap and option transactions are used to hedge the risk in the price of shale oil. With these transactions, the Group or a transaction partner undertakes to pay the difference between the fixed price and the market price in the reporting period. According to the risk hedging principles of the Group, the goal of hedging transactions is to ensure predefined profits after variable expenses. The volume of the underlying assets, the risks of which are being hedged, is determined separately for each period. The minimum price level is set for price risk hedge transactions, after which transactions can be concluded. The volume of transactions depends on the time horizon of the underlying period and the contract price offered.

The need to buy greenhouse gas emission allowances arises when  ${\rm CO_2}$  emissions exceed the number of greenhouse gas emission allowances allocated free of charge by the state. To lower the risk from changes in the price of the amount of greenhouse

gas emissions allowed, the Group uses option and future transactions (Note 14). According to the risk management strategy concerning greenhouse gas emission allowances, the missing quantity is purchased on a dispersed basis throughout the year based on the expected price and shortage of greenhouse gas emission allowances.

#### 3.1.1.3 Cash flow and fair value interest rate risk

Interest rate risk is the risk that the fair value of financial instruments or cash flows will fluctuate in the future due to changes in market interest rates. Cash flow interest rate risk arises to the Group from floating interest rate borrowings and lies in the danger that financial expenses increase when interest rates increase.

Sensitivity analysis is used to assess the interest rate risk. For managing the Group's interest rate risks, the principle that the share of fixed interest rate borrowings in the portfolio should be over 50% is followed. The Group has predominantly locked the risk resulting from fluctuations in the base interest rate. As at the financial year-end, for 100% of borrowings the base interest rate is locked until maturity (31 December 2016: for 95% was locked until maturity and 5% had floating interest rate). Due to that the changes in the market interest rate don't have material effect on the Group's borrowings, however they may affect the fair value of the borrowings.

Overnight deposits and term deposits have been entered into with fixed interest rates and they do not result in an interest rate risk for cash flows to the Group. Any reasonably possible change in the fair value of financial assets at fair value through profit or loss would not have had significant impact on the Group's net profit.

#### 3.1.2 Credit risk

Credit risk is the risk that the Group will incur a monetary loss caused by the other party to a financial instrument because of that party's inability to meet its obligations. Cash in bank deposits, derivatives with a positive value and trade and other receivables are exposed to credit risk.

According to the principles of depositing of available monetary funds of the Group, the following principles are followed:

- preserving capital;
- ensuring liquidity at the right moment for the needs of business:
- optimal return considering the previous two goals.

Short-term monetary funds can be deposited in the following domestic and foreign financial instruments:

- money market funds and interest rate funds in which holdings or shares can be redeemed or sell on a regular basis;
- deposits of credit institutions;
- freely negotiable bonds and other freely negotiable debt instruments.

Requirements for the level of credit risk of issuers and partners of financial instruments (including hedge transactions) and maximum positions of each partner are approved by the Group's committee of the financial risks.

The available monetary funds can be deposited only in financial instruments nominated in euros. In addition there are certain requirements for the maturities of the financial instruments and diversification.

The unpaid invoices of clients are handled on a daily basis in the departments specifically set up for this purpose. The automated reminder and warning system sends messages to customers about overdue invoices with the warning that if they are not paid, the clients will be cut off from the electricity network. After that, a collection petition is filed at the court or a collection agency. Special agreements are in the jurisdiction of special credit committees.

The maximum amount exposed to credit risk was as follows as at the end of the reporting period:

in million EUR	31. DECEMBER		
	2017	2016	
Trade and other receivables (Notes 12 and 13)*	123.9	232.8	
Bank accounts and deposits recognised as cash equivalents in banks (Note 12, 15 and 17)	298.7	223.3	
Derivatives with positive value (Notes 3.3, 12, 14 and 15)	3.5	1.4	
Total amount exposed to credit risk	426.1	457.5	

<sup>\*</sup> Total trade and other receivables less prepayments

Trade receivables are shown net of impairment losses. Although the collection of receivables can be impacted by economic factors, management believes that there is no significant risk of loss beyond the provisions already recorded. The types of other receivables do not contain any impaired assets.

More detailed information on credit risk is disclosed in Notes 13 and 15.

# 3.1.3 Liquidity risk

Liquidity risk is the risk that the Group is unable to meet its financial obligations due to insufficient cash inflows. Liquidity risk is managed through the use of various financial instruments such as loans, bonds and commercial papers.

The Group's liquidity risk has two dimensions. Short-term liquidity risk is the risk that the Group's bank accounts do not include sufficient cash to meet the Group's financial commitments. Long-term liquidity risk is the risk that the Group does not have sufficient amount of unrestricted cash or other sources of liquidity to meet its future liquidity needs in order to carry out its business plan and meet its commitments, or that for the above reason the Group needs to raise additional cash in a hurry and on terms, which are less than optimal. Short-term liquidity risk is mitigated so that the Group keeps certain amount of cash buffer in its bank accounts in order to have sufficient amount of cash available also in case there are deviations from the cash flow forecast. Long-term liquidity risk is mitigated by regular forecasts of liquidity needs for the next 12 months (including cash requirement for investments, loan repayments and dividends, and positive cash flow from operations) and by keeping sufficient liquidity buffer in the form of unrestricted cash, undrawn investment loans, and limits of liquidity loans. The Group's liquidity risk is managed at the Group level by the parent company's Financial Department.

As at 31 December 2017, the Group had spare monetary balances of EUR 298.7 million (31 December 2016: EUR 223.3 million). Additionally, as at the end of the financial year, the Group had undrawn loan facilities of EUR 150.0 million (31 December 2016: EUR 220.0 million) (Note 21). It consisted of bilateral liquidity loan agreements with floating interest rate with SEB and OP Corporate bank, which will mature in five years (July 2020).

The following liquidity analysis includes the division between the Group's current and non-current liabilities (including derivatives with net payments) by the maturity date of liabilities. All amounts shown in the table are contractual undiscounted cash flows. The payables due within 12 months after the end of the reporting period, except for borrowings, are shown at their carrying amount.

### Division of liabilities by maturity date as at 31 December 2017 (in million EUR):

in million EUR	Less than 1 year	Between 1 and 5 years	Later than 5 years	Total undiscounted cash flow	Carrying amount
Borrowings (Notes 3.2, 12 and 21)*	195.6	272.3	568.4	1,036.3	881.1
Derivatives (Notes 3.3, 12 and 14)	18.2	-	-	18.2	18.2
Trade and other payables (Notes 12 and 22)	114.0	1.5	-	115.5	115.5
Tax liabilities and payables to employees (Note 22)	62.5	-	-	62.5	62.5
Total	390.3	273.8	568.4	1,232.5	1,077.3

<sup>\*</sup> Interest expenses have been estimated on the basis of the interest rates prevailing as at 31 December 2017.

# Division of liabilities by maturity date as at 31 December 2016 (in million EUR):

in million EUR	Less than 1 year	Between 1 and 5 years	Later than 5 years	Total undiscounted cash flow	Carrying amount
Borrowings (Notes 3.2, 12 and 21)*	39.5	485.0	599.3	1,123.8	939.9
Derivatives (Notes 3.3, 12 and 14)	16.5	6.1	-	22.6	22.6
Trade and other payables (Notes 12 and 22)	95.7	1.8	-	97.5	97.5
Tax liabilities and payables to employees (Note 22)	53.1	-	-	53.1	53.1
Total	204.8	492.9	599.3	1,297.0	1,113.1

<sup>\*</sup> Interest expenses have been estimated on the basis of the interest rates prevailing as at 31 December 2016.

The information about the dividends that will be declared and become payable after the end of the reporting period is disclosed in Note 19.

# 3.2 Management of equity

All shares of Eesti Energia AS belong to the state. Decisions concerning dividend distribution and increases or decreases of share capital are made by the Republic of Estonia through the Ministry of Finance. Each financial year, the dividends payable by Eesti Energia AS to the state budget are defined by order of the Government of the Republic of Estonia (Notes 18 and 19).

The Group follows a strategy according to which net debt should not exceed EBITDA more than 3.5 times and equity should be at least 50% of the total assets. As at 31 December 2017 and 31 December 2016, the net debt to EBITDA ratio and the equity to assets ratio were as follows (in million EUR):

in million EUR	n EUR 31. DECEMBE	
	2017	2016
Debt (Notes 3.1, 12 and 21)	881.1	939.9
Less: cash and cash equivalents (Notes 3.1, 12 and 17)	(298.7)	(223.3)
Net debt	582.4	716.6
Total equity	1,763.9	1,698.0
EBITDA*	264.2	327.3
Assets	3,142.5	3,087.2
Net debt/EBITDA	2.2	2.2
Equity/assets	56%	55%
Total capital (net debt + equity)	2,346.3	2,414.6
Debt to equity ratio	25%	30%

<sup>\*</sup> EBITDA profit before interest, tax, depreciation and amortization

#### 3.3 Fair value

The Group estimates that the fair values of assets and liabilities reported at amortised cost in the statement of financial position as at 31 December 2017 and 31 December 2016 do not materially differ from the carrying amounts reported in the consolidated financial statements, with the exception of bonds (the fair value is calculated with the inputs that are classified to Level 1 in the fair value hierarchy, Note 21). The carrying amount of current accounts receivable and payable and loan receivables less impairments is estimated to be approximately equal to their fair value. For disclosure purposes, the fair value of financial liabilities is determined by discounting the contractual cash flows at the market interest rate which is available for similar financial instruments of the Group.

The tables below analyses financial instruments carried at fair value, by valuation method. The different levels have been defined as follows:

- quoted prices (unadjusted) in active markets for identical assets or liabilities (Level 1);
- inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly or indirectly (Level 2);
- inputs for the asset or liability that are not based on observable market data (Level 3).

The following tables present the Group's assets and liabilities that are measured at fair value by the level in the fair value hierarchy as at 31 December 2017 and 31 December 2016:

in million EUR	31. DECEMBER 2017			
	Level 1	Level 2	Level 3	Total
Assets				
Trading derivatives (Notes 12, 14 and 15)	0.6	2.1	-	2.7
Cash flow hedges (Notes 12, 14 and 15)	0.8	-	-	0.8
Total financial assets (Notes 3.1, 12, 14 and 15)	1.4	2.1	-	3.5
Liabilities				
Trading derivatives (Notes 12, 14 and 15)	-	1.3	-	1.3
Cash flow hedges (Notes 12, 14 and 15)	-	16.9	-	16.9
Total financial liabilities (Notes 3.1, 12 and 14)	-	18.2	-	18.2

in million EUR	31. DECEMBER 2016			
	Level 1	Level 2	Level 3	Total
Assets				
Trading derivatives (Notes 12, 14 and 15)	0.4	0.4	-	0.8
Cash flow hedges (Notes 12, 14 and 15)	-	(0.1)	0.7	0.6
Total financial assets (Notes 3.1, 12, 14 and 15)	0.4	0.3	0.7	1.4
Liabilities				
Trading derivatives (Notes 12, 14 and 15)	-	2.0	-	2.0
Cash flow hedges (Notes 12, 14 and 15)	1.3	19.3	-	20.6
Total financial liabilities (Notes 3.1, 12 and 14)	1.3	21.3	-	22.6

#### (a) Financial instruments in level 1

The fair value of financial instruments traded in active markets is based on quoted market prices at the balance sheet date. A market is regarded as active if quoted prices are readily and regularly available from an exchange, dealer, broker, industry group, pricing service, or regulatory agency, and those prices represent actual and regularly occurring market transactions on an arm's length basis. The quoted market price used for financial assets held by the group is the current bid price.

In level 1 are classified the Group's electricity derivatives that have been cleared in Nasdaq OMX.

#### (b) Financial instruments in level 2

The fair value of financial instruments that are not traded in an active market is determined using valuation techniques. These valuation techniques maximise the use of observable market data where it is available and rely as little as possible on entity specific estimates. An instrument is included in level 2 if all the significant inputs required to establish the fair value of the instrument are observable. If one or more significant inputs are not based on observable market data, an instrument is included in level 3. The value of trading derivatives and cash flow hedges are found using notations of Nasdaq OMX, ICE, Platt's European Marcetscani and Nymex.

- The fair value of forward, swap and future contracts is determined using forward prices at the balance sheet date, with the resulting value discounted back to present value.

# (c) Financial instruments in level 3

All instruments in Level 3 are options. The fair value of options is found using analytical solution of Turnbull-Wakeman Asian-type option pricing, inputs for which include the futures price, the strike price, volatility of the underlying, the risk free interest rate, time to maturity, time to the beginning of average period, the already realised average futures price during the average period.

The following table represents the changes in Level 3 instruments for the year ended 31 December 2017

in million EUR	Cash flow hedges	Total
Opening balance	0.7	0.7
Settlements (receipts - / payments+)	(0.7)	(0.7)
Closing balance	-	-
Total gains (+) or losses (-) for the period included in profit or loss for assets held at the end of the reporting period under "Other operating income/expenses"	-	-
Change in unrealised gains (+) or losses(-) for the period included in profit or loss for assets held at the end of the reporting period	-	-

The following table represents the changes in Level 3 instruments for the year ended 31 December 2016

in million EUR	Cash flow hedges	Total
Opening balance	23.6	23.6
Gains (+) and losses (-) recognised in profit or loss	4.8	4.8
Gains (+) and losses (-) recognised in other comprehensive income	(7.3)	(7.3)
Settlements (receipts - / payments+)	(20.4)	(20.4)
Closing balance	0.7	0.7
Total gains (+) or losses (-) for the period included in profit or loss for assets held at the end of the reporting period under "Other operating income/expenses"	0.6	0.6
Change in unrealised gains (+) or losses(-) for the period included in profit or loss for assets held at the end of the reporting period	(0.1)	(0.1)

# 3.4 Offsetting financial assets and financial liabilities

### (a) Financial assets

The following financial assets are subject to offsetting:

in million EUR		31. DECEMBER 2017					
	Gross amounts of recognised financial assets	Gross amounts of recognised financial liabilities set off in the balance sheet	Net amounts of financial assets presented in the balance sheet (Notes 3.1, 3.3, 12, 14 and 15)	Related amounts not set off in the balance sheet	Net amount		
Derivative financial instruments	5.0	(1.5)	3.5	(1.0)	2.5		
in million EUR		31. [	DECEMBER 2016				
	Gross amounts of recognised financial assets	Gross amounts of recognised financial liabilities set off in the balance sheet	Net amounts of financial assets presented in the balance sheet (Notes 3.1, 3.3, 12, 14 and 15)	Related amounts not set off in the balance sheet	Net amount		
Derivative financial inst- ruments	22.1	(20.7)	1.4	(1.3)	0.1		

## (b) Financial liabilities

The following financial liabilities are subject to offsetting:

in million EUR	31. DECEMBER 2017					
	Gross amounts of recog- nised financial liabilities	Gross amounts of recognised financial assets set off in the balance sheet	Net amounts of financial liabilities presented in the balance sheet (Notes 3.1, 3.3, 12, 14 and 15)	Related amounts not set off in the balance sheet	Net amount	
Derivative financial instruments	19.7	(1.5)	18.2	(1.0)	17.2	
in million EUR	31. DECEMBER 2016					
	Gross amounts of recog- nised financial liabilities	Gross amounts of recognised financial assets set off in the balance sheet	Net amounts of financial liabilities presented in the balance sheet (Notes 3.1, 3.3, 12, 14 and 15)	Related amounts not set off in the balance sheet	Net amount	
Derivative financial instruments	43.3	(20.7)	22.6	(1.3)	21.3	

Agreements between the Group and the counterparties allows for offsetting in concrete single transaction when mutual claims are

in the same currency. In some agreements offsetting between two or more transactions is allowed.

# 4. Critical accounting estimates and assumptions

#### Accounting estimates and assumptions

The preparation of the financial statements requires the use of estimates and assumptions that impact the reported amounts of assets and liabilities, and the disclosure of off-balance sheet assets and contingent liabilities in the notes to the financial statements. Although these estimates are based on management's best knowledge of current events and actions, actual results may ultimately differ from these estimates. Changes in management's estimates are recognised in the income statement of the period of the change.

The estimates presented below have the most significant impact on the financial information disclosed in the financial statements.

# (a) Determination of the useful lives of items of property, plant and equipment

The estimated useful lives of items of property, plant and equipment are based on management's estimate of the period during which the asset will be used. Previous experience has shown that the actual useful lives have sometimes been longer than the estimates. As at 31 December 2017, the net book amount of property, plant and equipment of the Group totalled EUR 2,474.5 million (31 December 2016: EUR 2,469.3 million), and the depreciation charge of the reporting period was EUR 132.4 million (2016: EUR 138.5 million) (Note 6). If depreciation rates were changed by 10%, the annual depreciation charge would change by EUR 13.2 million (2016: EUR 13.9 million).

# (b) Evaluation of the recoverable amount of property, plant and equipment and intangible assets

As needed, the Group performs impairment tests to determine the recoverable amount of items of property, plant and equipment and intangible assets. When carrying out impairment tests, management uses various estimates for the cash flows arising from the use of the assets, sales, maintenance, and repairs of assets, as well as estimates for inflation and growth rates and likelihood of getting grants. The estimates are based on forecasts of the general economic environment, consumption and the sales price of electricity, for estimating the fair value also the expert evaluations are used. If the situation changes in the future, either additional impairment could be recognised, or previously recognised impairment could be partially or wholly reversed. The recoverable amounts of fixed assets used for network services are impacted by the Competition Board which determines the reasonable rate of return to be earned on these assets. If the income, expenses and investments related to the sale of network services remain within the expected limits, the revenue derived from the sale of goods and services guarantees a reasonable rate of return for these assets. Information about impairment losses incurred in the comparative period is disclosed in Notes 6 and 8.

#### (c) Recognition and revaluation of provisions

As at 31 December 2017, the Group had set up provisions for environmental protection, termination of mining operations, dismantling of assets, employees and contracts related totalling EUR 39.0 million (31 December 2016: EUR 41.5 million) (Note 24). The amount and/or timing of the settlement of these

obligations is uncertain. A number of assumptions and estimates have been used to determine the present value of provisions, including the amount of future expenditure, inflation rates, and the timing of settlement of the expenditure. The actual expenditure may also differ from the provisions recognised as a result of possible changes in legislative norms, technology available in the future to restore environmental damages, and expenditure covered by third parties.

#### (d) Contingent assets and liabilities

When estimating contingent assets and liabilities, the management considers historical experience, general information about the economic and social environment and the assumptions and conditions of possible events in the future based on the best knowledge of the situation. Further information is disclosed in Note 33.

#### (e) Effectiveness testing of hedging instruments

The Group has conducted a significant number of future transactions to hedge the risk of the changes in the prices of electricity and shale oil with regard to which hedge accounting is applied, meaning that the gains and losses from changes in the fair value of effective hedging instruments are accounted through other comprehensive income. The evaluation of the effectiveness of hedging is based on management's estimates for future sales transactions concerning electricity and liquid fuels. When hedging instruments turn out to be ineffective, the total gain/loss from the changes in the fair value should be recognised in the income statement. As at 31 December 2017, the amount of the hedge reserve was EUR -12.2 million (31 December 2016: EUR -28.5 million) (Note 20).

#### (f) Recognition of liquidated damages

In 2017, the Group recognised liquidated damages of EUR 30.9 million (2016: EUR 68.6 million) as other operating income. In 2016, General Electric (GE) (including Alstom Estonia AS, GE Power Sp.z o.o and Alstom Power Systems) and Enefit Energiatootmine AS (a fully owned subsidiary of Eesti Energia Group) signed an agreement according to which GE undertook to pay Enefit Energiatootmise AS liquidated damages for the delay in the delivery of the Auvere power plant until the final delivery of the plant. Under previous agreements, GE had the obligation to complete the construction of the Auvere power plant and deliver it to Eesti Energia in November 2015. The delivery of the power plant has been delayed because the plant's emissions do not fully meet regulatory limits. The liquidated damages compensate Eesti Energia for unearned revenue for the period January 2017 - December 2017 (2016: until December 2016).

# 5. Segment reporting

For the purposes of monitoring the Group's performance and making management decisions, the Management Board uses product-based reporting. The Group has determined main products and services, i.e. value-creating units that generate external revenues and profit, and has built up a methodology of allocation of revenues and expenses, and assets to the products.

The Group has distinguished three main products and services, which are presented as separately reportable segments, and a number of minor products and services that are presented together as "Other segments":

- 1. electricity (production and sale of electricity generated from renewable and non-renewable sources, and electricity trading);
- 2. distribution (sale of electricity distribution network services on regulated market and sale of additional services by Elektrilevi);
- 3. shale oil (production and sale of liquid fuels);
- 4. other products and services (including production and sale of heat, construction of power engineering equipment and services, sale of old metal, sale of mining products, sale of gas, other products and services).

Other segments include co-products which individual share of the Group's revenue and EBITDA is immaterial. None of these co-products meet the quantitative thresholds that would require reporting separate disclosure. Segment revenues include revenues from external customers only, generated by the sale of respective products or services.

All operating expenses of the Group are allocated to the products and services to which they relate. If a product (e.g. electricity) is created by several Group entities in a vertically integrated chain, then the related expenses include the production cost of each entity involved in preparation of the product (e.g. the cost of electricity includes the cost of oil shale used for its production). Group overheads are allocated to products and services proportionally to the services provided.

The Management Board assesses the performance of the segments primarily based on EBITDA and it also monitors operating profit. Finance income and expenses, and income tax are not allocated to the segments.

The Group's assets are allocated to the segments based on the same proportion as the related expenses. Liabilities are not allocated to the segments as they are managed centrally by the Group's finance department.

As the segments are based on externally sellable products and services (as opposed to legal entities), there are no transactions between segments to be eliminated.

The sales prices of network charges need to be approved by the Estonian Competition Authority as stipulated by the Electricity Market Act of Estonia. The Estonian Competition Authority has an established methodology for approving the prices that considers the costs necessary to fulfil the legal obligations and ensures justified profitability on invested capital. Generally, the

Estonian Competition Authority considers the annual average carrying amount of non-current assets plus 5% of external sales revenue as invested capital. The rate for justified profitability is the Company's weighted average cost of capital (WACC). The sales prices for all other segments are not regulated by the law.

Also according to the District Heating Act the heating undertakings which sell heat to customers or to network operators who sell heat to customers or produce heat in the process of combined generation of heat and power must obtain the approval of the Competition Authority regarding the maximum price of the heat to be sold.

#### Revenue

The revenue from external customers reported to the management board of the parent company is measured in a manner consistent with that in the consolidated income statement.

in million EUR	31. DECEMBER	
	2017	2016
Revenue from external customers		
Electrical Energy	350.8	348.8
Network Services	247.4	252.7
Liquid Fuels	86.1	67.0
Other	69.6	73.5
Total	753.9	742.1

#### **EBITDA**

in million EUR	31. DEC	EMBER
	2017	2016*
EBITDA		
Electrical Energy	98.0	117.8
Network Services	107.0	112.6
Liquid Fuels	23.9	9.6
Other	35.3	87.3
Total	264.2	327.3
Depreciation and amortisation (Notes 6 and 8)	-135.8	-143.4
Net financial income (-expense)	-18.9	-13.8
using equity method (Note 9)	2.7	1.0
Profit before tax	112.2	171.1

\*Comparative information has been adjusted due to a change in the Group's cost allocation methodology as a result of which the foreign exchange gains/losses of the oil industry are now recognised in the Liquid Fuels segment. Previously the oil industry's foreign exchange gains were recognised in the segment Other and foreign exchange losses were recognised as a production cost component, i.e. they were allocated to segments based on the sale of liquid fuels. In addition, the allocation of the production costs of the mining industry's oil shale concentrate has been specified: in the Group's reporting for each period the costs are now allocated to product segments based on the sale and consumption of oil shale in terms of MWh.

Total	327.3	327.3	-
Other	87.3	88.9	(1.6)
Liquid Fuels	9.6	7.8	1.8
Network Services	112.6	112.6	-
Electrical Energy	117.8	118.0	(0.2)
EBITDA			
in million EUR	changed	before*	difference

The segment Other includes a gain of EUR 9.2 million earned on the sale of an interest in an oil shale power plant project in Jordan (55% interest in APCO) and the revaluation of loans provided to associates of EUR 0.2 million (2016: EUR 0.9 million) (Notes 13, 26, 32 and 35).

Liquidated damages related to the Auvere power plant in a sum EUR 30.9 million (in 2016 EUR 68.6 million) is recognised under segment "Other" because it is an extraordinary revenue and is not associated with ordinary business of other segments (Note 4 and 26).

#### Other profit and loss disclosures

in million EUR 1 JANUARY - 31 DECEMBER 2017			1 January – 31 December 2016		
	Depreciation and amortisation	Recognition (-) and reversal (+) of provisions	Depreciation and amortisation	Recognition (-) and reversal (+) of provisions	
Electrical Energy	(55.3)	60.9	(61.7)	42.8	
Network Services	(45.2)	0.1	(51.2)	0.9	
Liquid Fuels	(20.8)	5.7	(18.9)	3.5	
Other	(14.5)	1.7	(11.6)	1.2	
Total	(135.8)	68.2	(143.4)	48.4	

Interest income and expenses, corporate income tax expense and profit (loss) from associates using equity method are not divided between segments and the information is not provided to the management board of the parent company.

Additional information about the impairment, depreciation and amortisation is disclosed in Notes 6 and 8 and recognition and change of provisions in Note 24.

#### Assets

The amounts reported to the management board of the parent company with respect to total assets are measured in a manner consistent with that of the consolidated financial statements.

in million EUR	1 JAN	1 JANUARY - 31 DECEMBER 2017			ANUARY - 31 DECEMBER 2016		
	Total assets	Investments in associates (Note 9)	Capital expenditure (Notes 6 and 8)	Total assets	Investments in associates (Note 9)	Capital expenditure (Notes 6 and 8)	
Electrical Energy	1,300.2	3.7	39.0	1,271.2	1.5	24.4	
Network Services	1,069.4	-	89.3	1,048.1	-	107.4	
Liquid Fuels	280.6	0.7	8.8	305.0	0.4	6.0	
Other	492.3	31.2	6.9	462.9	0.1	2.8	
Total	3,142.5	35.6	144.0	3,087.2	2.0	140.7	

The Group operates mostly in Estonia, but electricity, liquid fuels and some other goods and services are also sold in other countries.

In "Other" segments there are no segments which results amounted to 10% or more of the Group's results.

# Entity-wide information

## External revenue by location of clients

Total external revenue (Note 26)	753.9	742.1
Other countries	0.8	0.8
United Kingdom	-	18.6
Switzerland	4.1	0.1
Nordic countries	15.2	11.3
Lithuania	29.5	23.4
Latvia	46.8	54.9
Estonia	657.5	633.0
	2017	2016
in million EUR	31. DECE	MBER

# Allocation of non-current assets by location\*

in million EUR	31. DECE	MBER
	2017	2016
Estonia	2,477.3	2,469.6
USA	24.6	27.7
Latvia	8.1	8.4
Other countries	3.2	3.8
Total (Notes 6 and 8)	2,513.2	2,509.5

<sup>\*</sup>other than financial instruments and investments in associates

The Group did not have in the reporting period nor in the comparable period any clients whose revenues from transactions amounted to 10% or more of the Group's revenues.

# 6. Property, plant and equipment

in million EUR	Land	Buildings	Facilities	Machinery and equipment	Other	Construction in progress and prepayments	Total
Property, plant and equipment as at 31.12.2015							
Cost	43.6	256.6	953.5	2,024.9	5.9	610.0	3,894.5
Accumulated depreciation	-	(103.6)	(385.0)	(927.8)	(4.2)	-	(1,420.6)
Carrying amount at 31.12.2015 (Note 4)	43.6	153.0	568.5	1,097.1	1.7	610.0	2,473.9
Changes occurred in 2016							
Purchases (Note 5)	0.2	0.1	-	8.3	0.3	129.2	138.1
Depreciation charge and write-downs (Notes 4, 5 and 32)	-	(6.0)	(26.6)	(105.2)	(0.5)	(0.2)	(138.5)
Disposals	(1.1)	(1.4)	(O.1)	(0.3)	-	(0.8)	(3.7)
Exchange differences	0.1	-	-	-	-	-	0.1
Transfers	0.2	1.2	39.4	92.5	0.1	(134.0)	(0.6)
Total changes occurred in 2016	(0.6)	(6.1)	12.7	(4.7)	(0.1)	(5.8)	(4.6)
Property, plant and equipment as at 31.12.2016							
Cost	43.0	249.3	989.7	2,061.7	6.2	604.2	3,954.1
Accumulated depreciation	-	(102.4)	(408.5)	(969.3)	(4.6)	-	(1,484.8)
Carrying amount at 31.12.2016 (Note 4)	43.0	146.9	581.2	1,092.4	1.6	604.2	2,469.3
Changes occurred in 2017							
Purchases (Note 5)	0.2	0.1	0.1	5.4	0.1	133.4	139.3
Depreciation charge and write-downs (Notes 4, 5 and 32)	-	(5.5)	(27.1)	(99.1)	(0.5)	(0.2)	(132.4)
Disposals	-	(0.4)	(0.3)	(0.6)	-	-	(1.3)
Exchange differences	(0.4)	-	-	-	-	-	(0.4)
Transfers	0.1	2.1	55.3	74.6	0.1	(132.2)	-
Total changes occurred in 2017	(0.1)	(3.7)	28.0	(19.7)	(0.3)	1.0	5.2
Property, plant and equipment as at 31.12.2017							
Cost	42.9	248.4	1,041.5	2,116.9	6.2	605.2	4,061.1
Accumulated depreciation	-	(105.2)	(432.3)	(1,044.2)	(4.9)	-	(1,586.6)
Carrying amount at 31.12.2017 (Note 4)	42.9	143.2	609.2	1,072.7	1.3	605.2	2,474.5

#### 6. Property, plant and equipment, continued

In 2017, the Group tested the Auvere power plant and the Narva power plants for impairment. These two production units are treated as separate cash generating units because the Auvere power plant is considerably more efficient than other generating units and has a different cost base. In the Group's sales strategy, the Auvere power plant cannot be replaced with other production units. Therefore, any decisions regarding the Auvere power plant's maintenance and investment plans are made primarily based on market forecasts and separately from those of the other production units.

As at 31 December 2017, the total carrying amount of the assets of the Auvere power plant was EUR 528.8 million (31 December 2016: EUR 527.6 million). The results of the impairment test did not reflect the need for recognising an impairment loss or reversing previously recognised impairment losses because the assets' value in use was comparable to their carrying amount. The recoverable amount of the assets was estimated based on their value in use. The expected future cash flows were discounted using a discount rate of 9.0% (comparative figure for 2016: 9.0%). A 1% rise in the discount rate would have an impact of EUR 86 million (2016: EUR 82 million) on the recoverable amount of the assets.

The recoverable amount of the assets of the Auvere power plant is sensitive to changes in the prices of electricity, fuel (oil shale) and  $\mathrm{CO}_2$  emission allowances as well as the implementation, timing, price and volume of flexible cooperation mechanisms.

In conducting the impairment test, the near-term market price of electricity was forecast by relying on both a third party consultant's estimates and the projections made based on relevant forward prices. It was assumed that from 2020 the price levels in the Estonian and the neighbouring electricity markets would gradually equalise. If this assumption did not apply, the impact on the recoverable amount of the assets would be up to EUR 248 million (2016: up to EUR 85 million). Thanks to the Group's sales strategy according to which it strives to sell more electricity during peak hours, in 2017, the average quarterly sales price achieved by the Group on the Nord Pool Spot power exchange was 3-5% (2016: 4-15%) higher than the Nord Pool Spot market price in the Estonian price area. The Group plans to pursue the same strategy in subsequent years. In addition, the test took into account the impacts of the following years' hedging transactions.

The share of renewable energy revenues was forecast assuming that from 2018 it would be possible to export renewable energy to other European countries with a view to earning additional revenue (Europe-wide auctions of renewable energy units for countries whose legislation supports this in accordance with Directive 2009/28/EC, henceforth "flexible cooperation mechanisms"). Accordingly, up to 50% (up to 1 TWh) of electricity generated at the Auvere power plant could be produced from biomass and the Group could earn additional revenue through flexible cooperation mechanisms. It was assumed that the rate of additional revenue from electricity generated from biomass would fall within the range of 11-16 €/MWh (2016: 20-30 €/MWh). If this assumption did not apply, the impact on the recoverable amount of the assets would be up to EUR 40 million (2016: up to EUR 64 million).

The market price of  ${\rm CO_2}$  emission allowances was forecast for the near term based on relevant forward prices and thereafter assuming that from 2023 the price would increase at the rate of

## 6. Property, plant and equipment, continued

2.0% per year (based on the Ministry of Finance forecast of the consumer price index dated 2 October 2017) (2016: 2.7% per year based on the growth rate). As regards the oil shale price, it was assumed that in the future the fuel price could be kept stable by improving the efficiency of the production process. If the assumption about the oil shale price did not apply, the impact on the recoverable amount of the assets would amount to EUR 27 million (2016: up to EUR 50 million).

As at 31 December 2017, the total carrying amount of the assets of the Narva power plants was EUR 210.3 million (31 December 2016: EUR 222.1 million). The results of the impairment test on the assets of the Narva power plants did not reflect the need for recognising an impairment loss (2016: the impairment test did not reflect the need for recognising an impairment loss). The recoverable amount of the assets was estimated based on their value in use. The expected future cash flows were discounted using a discount rate of 9.0% (comparative figure for 2016: 9.0%). A 1% rise in the discount rate would have an impact of EUR 56 million (2016: EUR 53 million) on the recoverable amount of the assets. At a 1% higher discount rate the carrying amount of the assets would not exceed their recoverable amount.

The recoverable amount of the assets of the Narva power plants is sensitive to changes in the market prices of electricity and  $\mathrm{CO}_2$  emission allowances, changes in fuel prices and the rate of the implementation of flexible cooperation mechanisms. The market assumptions used in the impairment test on the Narva power plants are the same as those used in the impairment test on the Auvere power plant. The factor which has the strongest impact on the recoverable amount of the assets of the Narva power plants is

the electricity price. If the assumption that the price levels in the Estonian and neighbouring electricity markets will equalise did not apply, the impact on the recoverable amount of the assets would be EUR 265 million. If this assumption did not apply, the carrying amount of the assets would exceed their recoverable amount by up to EUR 108 million.

In 2017, the assets of the Enefit280 oil plant whose carrying amount at 31 December 2017 was EUR 235.1 million (31 December 2016: EUR 245.1 million) were tested for impairment by estimating their recoverable amount. The results of the impairment test did not reflect the need for recognising an impairment loss (2016: the impairment test did not reflect the need for recognising an impairment loss). The recoverable amount of the assets was estimated based on their fair value less cost of disposal (2016: based on fair value less cost of disposal). Fair value was measured based on the expected future cash flows of the assets which took into account the cash flows of the plant for extracting gasoline from oil shale gas. Value was measured made using Level 3 inputs in the fair value hierarchy. The expected future cash flows were discounted using a discount rate of 9.0% (comparative figure for 2016: 9.0%). A 1% rise in the discount rate would have an impact of EUR 27 million (2016: EUR 52 million) on the recoverable amount of the assets. At a 1% higher discount rate the carrying amount of the assets would not exceed their recoverable amount.

The recoverable amount of the assets of the oil plant is sensitive to changes in the price of oil shale and the world market price of heavy fuel oil with 1% sulphur content.

#### 6. Property, plant and equipment, continued

The market prices of the output of the oil factory were forecast based on the forward prices of the reference product, heavy fuel oil with 1% sulphur content, and the closed positions of hedging instruments (2016: the same assumptions were applied) and assuming that from 2021 the prices would increase at the rate of 2.0% per year (based on the Ministry of Finance forecast of the consumer price index dated 2 October 2017). In other respects, the impairment test was conducted by applying the same market price forecasts as in the impairment test on the Auvere power plant which have been described above. On forecasting the output of the oil factory, it was assumed that the plant for extracting gasoline from oil shale gas will start working in 2019 and this will increase the output of liquid fuels by 10%. If this assumption did not apply, the impact on the recoverable amount of the assets would be up to EUR 42 million (2016: up to EUR 67 million). If this assumption did not apply, the carrying amount of the assets would not exceed their recoverable amount.

On estimating the recoverable amount of the oil factory, it was assumed that from 2018 Eesti Energia can apply for free  $\mathrm{CO}_2$  emission allowances and additional allowances will not have to be purchased from the market (2016: the cost of  $\mathrm{CO}_2$  emission allowances was estimated on the basis of forward prices). If this assumption did not apply, the impact on the recoverable amount of the assets would be up to EUR 42 million. If this assumption did not apply, the carrying amount of the assets would not exceed their recoverable amount.

As regards the oil shale price, it was assumed that in the future the fuel price could be kept stable by improving the efficiency of the production process. If the oil shale price increases in the long term at the growth rate of the consumer price index, the impact on the recoverable amount of the assets will be up to EUR 27 million (2016: up to EUR 28 million). If this assumption did not apply, the carrying amount of the assets would not exceed their recoverable amount (2016: if the assumption had not applied the carrying amount of the assets would not have exceeded their recoverable amount).

In 2017, the assets of Eesti Energia's wind farms (Aulepa, Paldiski, Narva) were tested for impairment by estimating their recoverable amounts. The results of the impairment test did not reflect the need for recognising an impairment loss (2016: the impairment test did not reflect the need for recognising an impairment loss). The recoverable amount of the assets was estimated based on their value in use. The expected future cash flows were discounted using a discount rate of 6-7.0% (comparative figure for 2016: 6.0%). The impairment test was conducted by applying the above forecasts of the market price of electricity. Above all, the assets of wind farms are sensitive to changes in the market price of electricity. If the assumption that the price levels in the Estonian and the neighbouring electricity markets will equalise by 2020 did not apply, the total impairment loss on the Aulepa and Narva wind farms would amount to EUR 4.1 million and EUR 5.2 million respectively (2016: the impairment loss of the Aulepa and Narva wind farms would have amounted to EUR 1.1 million and EUR 1.3 million euros respectively). The results of the impairment test did not reflect the need for recognising an impairment loss for Paldiski wind farm (2016: the impairment test did not reflect the need for recognising an impairment loss for Paldiski wind farm).

## 7. Operating lease, continued

In 2017 the assets of Enefit American Oil were tested for impairment. The results of the impairment test did not reflect the need for recognising an impairment loss or reversing previously recognised impairment losses. The recoverable amount of the assets was estimated based on same methodology as in 2016, i.e. the assets were revalued to the value of the land. For this, the average price of ten similar plots of land, which were for sale in Utah state in the vicinity (20 miles) of Vernal area was found (input Level 3). The valuation was based on an analysis of the enterprise value of Enefit American Oil prepared by Hard Rock Consulting LLC in 2015.

In the reporting period, borrowing costs of EUR 22.3 million (2016: EUR 21.7 million) were capitalised and included in the carrying amount of the assets. In 2017, the capitalisation rate of borrowing costs was 3.8% (2016: 3.8%) (Note 30).

## Buildings and facilities leased out under operating lease terms

in million EUR	31. DECI	EMBER
	2017	2016
Cost	7.0	7.1
Accumulated depreciation at the beginning of the financial year	(3.9)	(3.8)
Depreciation charge	(0.2)	(0.2)
Net book amount	2.9	3.1

Assets which have been leased out are used partly in operating activities and partly for earning rental income. The cost and depreciation of the assets have been calculated based on the proportion of the parts that have been leased out.

Operating lease income is disclosed in Note 7.

# 7. Operating lease

in million EUR	31. DECE	MBER
	2017	2016
Rental and maintenance income		
Buildings	1.0	1.3
of which contingent rent	0.5	0.5
Total rental and maintenance income (Note 25)	1.0	1.3
Rental expense		
Buildings	2.1	2.3
Transport vehicles	0.6	0.6
Other machinery and equipment	2.3	2.2
Total rental expense (Note 29)	5.0	5.1

Future rentals receivable under non-cancellable operating leases by due dates

in million EUR	31. DECEMBER		
	2017	2016	
Rental income			
< 1 year	0.5	0.5	
1 - 5 years	1.9	2.0	
> 5 years	5.0	5.6	
Total rental income	7.4	8.1	

A fuel oil terminal has been leased out under a non-cancellable lease.

Operating lease contracts under which the Group is a lessee can mostly be cancelled by giving short-term notice.

# 8. Intangible assets

in million EUR	Goodwill	Computer software	Right of use of land	Exploration and evaluation assets	Contractual rights	Development costs	Total
Intangible assets as at 31.12.2015						55515	
Cost	3.5	36.1	2.6	1.6	21.6	0.4	65.8
Accumulated amortisation	-	(24.5)	(0.7)	-	-	-	(25.2)
Carrying amount at 31.12.2015	3.5	11.6	1.9	1.6	21.6	0.4	40.6
Intangible assets not yet available for use	-	0.5	-	-	-	-	0.5
Total intangible assets as at 31.12.2015	3.5	12.1	1.9	1.6	21.6	0.4	41.1
Changes occurred in 2016							
Purchases (Note 5)	-	1.9	-	0.3	_	0.4	2.6
Amortisation charge and write-downs (Notes 5 and 32)	-	(4.7)	(O.1)	-	(0.1)	-	(4.9)
Exchange differences	-	-	-	-	0.8	-	0.8
Transfers	-	0.5	-	-	0.1	-	0.6
Total changes occurred in 2016	-	(2.3)	(0.1)	0.3	0.8	0.4	(0.9)
Intangible assets as at 31.12.2016							
Cost	3.5	37.8	2.6	1.9	22.5	0.8	69.1
Accumulated amortisation	-	(29.1)	(0.8)	-	(O.1)	-	(30.0
Carrying amount at 31.12.2016	3.5	8.7	1.8	1.9	22.4	0.8	39.1
Intangible assets not yet available for use	-	1.1	-	-	-	-	1.1
Total intangible assets as at 31.12.2016	3.5	9.8	1.8	1.9	22.4	0.8	40.2
Changes occurred in 2017							
Purchases (Note 5)	-	4.2	-	0.2	-	0.3	4.7
Amortisation charge and write-downs (Notes 5 and 32)	-	(3.2)	(O.1)	-	(O.1)	-	(3.4
Exchange differences	-	-	-	(0.1)	(2.7)	-	(2.8
Transfers	-	-	-	-	1.0	(1.0)	
Total changes occurred in 2017	-	1.0	(0.1)	0.1	(1.8)	(0.7)	(1.5)
Intangible assets as at 31.12.2017							
Cost	3.5	39.9	2.6	2.0	20.8	0.1	68.9
Accumulated amortisation	-	(32.2)	(0.9)	-	(0.2)	-	(33.3
Carrying amount at 31.12.2017	3.5	7.7	1.7	2.0	20.6	0.1	35.6
Intangible assets not yet available for use	-	3.1	-	-	-	-	3.1
Total intangible assets as at 31.12.2017	3.5	10.8	1.7	2.0	20.6	0.1	38.7

## 8. Intangible assets, continued

## Goodwill

## Allocation of goodwill to cash generating units

in million EUR	Mining	Valka co-generation plant	Paide co-generation plant
Carrying amount at 31 December 2017	2.5	0.6	0.4
Carrying amount at 31 December 2016	2.5	0.6	0.4

The recoverable amounts of assets are determined on the basis of their value in use and using the cash flow forecast prepared for up to 20 years. The periods are selected based on the average investment horizons regularly used in the electricity business. Cash flows are forecast based on historical data and the forecasts of the Estonian energy balance. The discount rate applied is the weighted average cost of capital (WACC), which is determined based on the entity's area of operation and risk level. No impairment was identified during the tests.

## Key assumptions used in estimating value in use

in million EUR	31. DECEMBER		
	<b>2017</b> 20		
Discount rate			
Mining	9.0%	9.0%	
Valka co-generation plant	7.0%	6.0%	
Paide co-generation plant	7.0%	6.0%	

#### Mineral resource exploration and evaluation assets

Mineral resource exploration and evaluation assets comprise the costs incurred in the exploration for and evaluation of oil shale resources acquired in the state of Utah, USA.

## Contractual rights

Contractual right comprise the value of mining rights acquired in the state of Utah, the estimated useful life of which is 20 years.

# 9. Investments in associates

#### Nature of investments in associates 2017 and 2016:

Name of the company	Place of business	Owner- ship as at 31.12.2017	Owners- hip as at 31.12.2016	Nature of the rela- tionship	Measu- rement method
Orica Eesti OÜ*	Estonia, the Nether- lands	35.0%	35.0%	Note 1	Equity
Enefit Jordan B.V. kontsern	Jordan, Estonia	65.0%	65.0%	Note 2	Equity
Attarat Mining Co BV	the Netherlands	10.0%	50.0%	Note 3	Equity
Attarat Power Holding Co BV kontsern	the Netherlands	10.0%	65.0%	Note 3	Equity
Attarat Operation & Maintenance Co BV	the Netherlands	10.0%	25.0%	Note 3	Equity

<sup>\*</sup> The financial year of Orica Eesti OÜ is from 1 October to 30 September.

Note 1: Orica Eesti OÜ manufactures and sales explosives and is a strategic partner for Eesti Energia Kaevandused AS.

Note 2: Enefit Jordan B.V. Group is engaged with the oil shale development project in Jordan. Enefit Jordan B.V. Group is recognised as associate as according to the Shareholders' Agreement, the Group does not have the right to make any relevant decisions regarding Enefit Jordan B.V. Group without the consent of one or, in cases, both of other shareholders who hold the remainder of the 35% shares. Based on voting quorom requirements for different decisions joint control is not established

Note 3: On 16 March 2017, Attarat Power Company (APCO) reached financial close for its oil shale fired power plant in Jordan. In connection that, Eesti Energia reduced its previous 65% interest in APCO to 10%. Eesti Energia retained significant influence after the disposal of the 55% controlling interest (Notes 26 and 35).

# Reconciliation of summarised financial information of associates

in million EUR	31. DECE	MBER
	2017	2016
Summarised net assets of associates at the beginning of the period	(19.6)	(32.4)
Profit/loss for the period	11.4	23.4
Other comprehensive income	(2.1)	(0.4)
Contribution to the share capital	39.4	-
Goodwill	(4.3)	-
Dividends declared	-	(10.2)
Summarised net assets of associates at the end of the period	24.8	(19.6)
Interest in associates	19.9	(14.5)
Notional goodwill	12.3	12.3
Group's share in negative net assets not recognised by the Group using the equity method	3.4	4.2
Carrying amount at the end of the period (Note 5)	35.6	2.0
Group's share of associates profit/loss for the period (Notes 5 and 32)	2.7	1.1

# 10. Principal subsidiaries

# The Group had the following subsidiaries at 31 December 2017

Name	Country of incorporation	Nature of business		ordinary shares the Group (%)	Proportion of ordin by noncontrolli	ary shares held ng interests (%)
				MBER	31. DETCEMBER	
			2017	2016	2017	2016
Elektrilevi OÜ	Estonia	Network operator	100.0	100.0	-	-
Enefit Kaevandused AS	Estonia	Oil shale mining	100.0	100.0	-	-
Enefit Energiatootmine AS	Estonia	Production of electrical energy	100.0	100.0	-	-
AS Narva Soojusvõrk	Estonia	Distribution and sale of heat	100.0	100.0	-	-
Enefit Solutions AS	Estonia	Manufacture and supply of metal structures, energy industry machinery and other industrial equipment	100.0	100.0	-	-
Enefit Green AS (until 6.12.2017 Enefit Taastuvenergia AS)	Estonia	Establishment and operation of wind parks	100.0	100.0	-	-
Pogi OÜ	Estonia	Production and sale of heat and electrical energy	-	83.3	-	16.7
Attarat Holding OÜ	Estonia	Holding	100.0	100.0	-	-
Enefit Outotec Technology OÜ	Estonia and Germany	Developing and licensing the new generation of Enefit shale oil production technology	60.0	60.0	40.0	40.0
Enefit SIA	Latvia	Selling electricity to end consumers	100.0	100.0	-	-
Enefit Power & Heat Valka SIA	Latvia	Production and sale of heat and electrical energy	100.0	100.0	-	-
Enefit UAB	Lithuania	Selling electricity to end consumers	100.0	100.0	-	-
Enefit U.S., LLC	USA	Holding	100.0	100.0	-	-
Enefit American Oil Co.	USA	Developing of liquid fuels production	100.0	100.0	-	-
Enefit Sp. z o.o.	Poland	Selling electricity to end consumers	100.0	100.0	-	-
Enefit AB	Sweden	Selling electricity to end consumers	100.0	-	-	-
Enefit OY	Finland	Selling electricity to end consumers	100.0	-	-	-

## 10. Principal subsidiaries, continued

In 2017 Pogi OÜ was merged with Enefit Green AS.

On 23 May 2017, Eesti Energia acquired from OÜ Tootus the remaining minority stake in Pogi OÜ - the Paide power plant. In June parent company sold its shares to Enefit Green AS (former Enefit Taastuvenergia AS). In August 2017, Pogi OÜ was incorporated into Enefit Green AS.

All subsidiary undertakings are included in the consolidation. The proportion of the voting rights in the subsidiary undertakings held directly by the parent company do not differ from the proportion of ordinary shares held. The parent company does not have any shareholdings in the preference shares of subsidiary undertakings included in the Group. None of the carrying amounts of the non-controlling interests as at 31 December 2017 and 31 December 2016 was material.

## Significant restrictions

Until the investments of the network operator (Elektrilevi OÜ) do not exceed the limits of the approved financing plan, according to the Electricity Market Act of Estonia the parent company may not intervene in the everyday economic activities of the network operator or in the decisions concerning the construction or upgrades of the network.

# 11. Inventories

in million EUR	31. DEC	FMRFR
THINION EUK	2017	2016
Raw materials and materials at warehouses	34.8	33.7
Work-in-progress	31.0	33.7
Stored oil shale	27.2	26.8
Stripping works in quarries	1.4	1.8
Other work-in-progress	0.1	0.1
Total work-in-progress	28.7	28.7
Finished goods		
Shale oil	4.2	2.4
Other finished goods	0.2	0.4
Total finished goods	4.4	2.8
Total inventories (Note 32)	67.9	65.2

In the reporting period, the Group wrote down damaged and slow-moving inventories of raw materials and materials totalling EUR 0.7 million (2016: EUR 0.2 million).

# 12. Division of financial instruments by category

in million EUR	Loans and	Financial assets at fair value	Derivatives for which hedge	Total
	receivables	through profit or loss	accounting is applied	
As at 31 December 2017				
Financial asset items in the statement of financial position				
Trade and other receivables excluding prepayments (Notes 3.1 and 13)	123.9	-	-	123.9
Derivative financial instruments (Notes 3.1, 3.3, 14 and 15)	-	2.7	0.8	3.5
Cash and cash equivalents (Notes 3.1, 3.2, 15 and 17)	298.7	-	-	298.7
Total financial asset items in the statement of financial position	422.6	2.7	0.8	426.1
As at 31 December 2016				
Financial asset items in the statement of financial position				
Trade and other receivables excluding prepayments (Notes 3.1 and 13)	232.8	-	-	232.8
Derivative financial instruments (Notes 3.1, 3.3, 14 and 15)	-	0.8	0.6	1.4
Cash and cash equivalents (Notes 3.1, 3.2, 15 and 17)	223.3	-	-	223.3
Total financial asset items in the statement of financial position	456.1	0.8	0.6	457.5

in million EUR	Other financial liabilities	Liabilities at fair value through profit or loss	Derivatives for which hedge accounting is applied	Total
As at 31 December 2017				
Financial liability items in the statement of financial position				
Borrowings (Notes 3.1, 3.2 and 21)	881.1	-	-	881.1
Trade and other payables (Notes 3.1 and 22)	115.5	-	-	115.5
Derivative financial instruments (Notes 3.1, 3.3 and 14)	-	1.4	16.8	18.2
Total financial liability items in the statement of financial position	996.6	1.4	16.8	1,014.8
As at 31 December 2016				
Financial liability items in the statement of financial position				
Borrowings (Notes 3.1, 3.2 and 21)	939.9	-	-	939.9
Trade and other payables (Notes 3.1 and 22)	97.5	-	-	97.5
Derivative financial instruments (Notes 3.1, 3.3 and 14)	-	2.0	20.6	22.6
Total financial liability items in the statement of financial position	1,037.4	2.0	20.6	1,060.0

# 13. Trade and other receivables

in million EUR	31. DEC	EMBER
	2017	2016
Short-term trade and other receivables		
Trade receivables		
Accounts receivable (note 32)	106.1	160.6
Allowance for doubtful receivables (Note 4)	(1.7)	(2.1)
Total trade receivables	104.4	158.5
Accrued income		
Amounts due from customers under the stage of		
completion method	1.7	0.8
Other accrued income	0.3	0.3
Total accrued income	2.0	1.1
Prepayments to suppliers	-	-
Prepayments	2.6	5.8
Receivables from associates (Note 36)	-	1.6
Cash restricted from being used	15.7	12.4
Other receivables	0.5	20.0
Total short-term trade and other receivables	125.2	199.4
Long-term receivables		
Loan receivables from associates (Note 36)	10.9	50.1
Allowance for doubtful loan receivables (Notes		
29 and 32)	(10.9)	(12.2)
Other long-term receivables	1.3	1.3
Total long-term receivables	1.3	39.2
Total trade and other receivables (Notes 3.1 and 12)	126.5	238.6

The receivables from associates include the termless loan granted to the associate Enefit Jordan B.V. with the interest rate 15% (2016: 15%). In 2017 the loan granted to associate Enefit Jordan B.V was revalued by EUR 0.2 million (in 2016 by EUR 0.9 million) (Notes 5, 29, 32 and 36).

In 2017, in connection with the sale of the majority stake, the loans the associate Attarat Power Holding Co BV had provided to the Group were realised (Notes 9 and 35).

Under cash restricted from being used are recognised financial resources that are held on accounts of different financial partners as a guarantee for the transactions. The fair values of receivables and prepayments do not significantly differ from their carrying amounts. Collection of receivables and prepayments for services and goods is not covered by securities. Most of the Group's receivables and prepayments are in euros. The amount of receivables denominated in US dollars is disclosed in Note 3.1. Information about the credit quality of the receivables is disclosed in Note 15.

In 2017 under trade receivables was recognised receivable amount for liquidated damages related to the Auvere power plant in a sum EUR 9.9 million (in 2016 EUR 57.8 million).

In 2016 under other receivables was recognised trading guarantees for Nasdaq due to electricity hedging transactions in a sum EUR 19.5 million.

#### 13. Trade and other receivables, continued

#### Analysis of accounts receivable

in million EUR	31. DEC	EMBER
	2017	2016
Accounts receivable not yet due (Notes 4 and 15)	92.5	151.1
Accounts receivable due but not classified as doubtful		
1-30 days past due	7.0	6.4
31-60 days past due	1.7	0.7
61-90 days past due	1.1	0.1
Total accounts receivable due but not classified as doubtful	9.8	7.2
Accounts receivable written down		
3-6 months past due	0.6	0.2
more than 6 months past due	3.2	2.1
Total accounts receivable that are more than 3 months past due	3.8	2.3
Total trade and other receivables (Notes 3.1 and 12)	106.1	160.6

Under the accounting policies of the Group, receivables 90 days past due are usually written down in full. The total amount of allowance for receivables 90 days past due is adjusted using prior experience of how many of the receivables classified as doubtful are collected in a later period and how many of the receivables not more than 90 days past due are not collected in a later period. Also other individual and extraordinary impacts like the global economic recession are taken into account during evaluation.

#### Changes in allowance for doubtful trade receivables

in million EUR	31. DECEMBER	
	2017	2016
Allowance for doubtful trade receivables at the beginning of the period	(2.1)	(2.1)
Classified as doubtful and collections during the accounting period	(0.4)	(0.6)
Classified as irrecoverable	0.8	0.6
Allowance for doubtful trade receivables at the end of the period (Note 4)	(1.7)	(2.1)

The other receivables do not contain any impaired assets.

#### Revenue under the stage of completion method

in million EUR	31. DECI	EMBER
	2017	2016
Unfinished projects at the end of the period		
Total of revenue of unfinished projects since the beginning of the projects	19.7	15.6
Total of progress billing submitted since the beginning of the projects	(18.9)	(15.8)
Amounts due from customers under the stage of completion method	1.7	0.8
Amounts due to customers under the stage of completion method	(0.9)	(1.0)
Total expenses on unfinished projects	(19.5)	(15.3)
Profit/loss calculated on unfinished projects	0.2	0.3
Total revenue from construction projects in the financial year	8.1	8.2
Total expenses on construction projects in the financial year	(11.5)	(10.7)
Total profit calculated on construction projects	(3.4)	(2.5)

Long-term construction projects are mostly power equipment manufacturing and network equipment design and construction.

# 14. Derivative financial instruments

in million EUR	31. DECEMBER 2017		31. DECEMBER 2016	
	Assets	Liabilities	Assets	Liabilities
Future contracts for buying and selling electricity as cash flow hedges	0.8	-	(O.1)	1.3
Forward and future contracts for buying and selling electricity as trading derivatives	1.0	1.6	0.6	1.4
Future contracts for buying and selling greenhouse gas emissions allowances as trading derivatives	0.1	0.2	-	0.6
Swap and future contracts for buying and selling gas as trading derivatives	0.1	0.2	-	-
Swap, forward and option contracts for selling fuel oil as cash flow hedges	-	16.8	0.7	19.3
Swap and option contracts for selling fuel oil as trading derivatives	1.5	(0.6)	0.2	-
Total derivative financial instruments (Notes 3.1, 3.3, 12, 15 and 20)	3.5	18.2	1.4	22.6
including non-current portion:				
Swap, forward and option contracts for selling fuel oil as cash flow hedges	0.2	-	-	6.1
Total non-current portion	0.2	-	-	6.1
Total current portion	3.3	18.2	1.4	16.5

## Forward contracts for buying and selling electricity

The goal of the forward contracts for buying and selling electricity is to manage the risk of changes in the price of electricity or earn income on changes in the price of electricity. All forward contracts have been entered into for the sale or purchase of a fixed volume of electricity at each trading hour and their price is denominated in euros. The transactions, the goal of which is to hedge the risk in the price of electricity, are designated as cash flow hedging instruments, where the underlying instrument being hedged is the estimated electricity sales transactions of high probability on the power exchange Nord Pool. The effective portion of the change in the fair value of transactions concluded for hedging purposes is recognised through other comprehensive

income and is recognised either as revenue or reduction of revenue at the time the sales transactions of electricity occur or other operating income/expenses when it is evident that sales transactions are unlikely to occur in a given period.

The forward contracts of buying and selling electricity the goal of which is to hedge the risk in the price of electricity will realise in 2018 (31 December 2016: in 2017). As at 31 December 2017 1.86 TWh had been hedged for the year 2018 (31 December 2016: 1.7 TWh had been hedged for the year 2017). The basis for determining the fair value of the instruments is the quotes by Nasdaq OMX.

#### 14. Derivative financial instruments, continued

## Future contracts for buying and selling greenhouse gas emissions allowances and contracts with funds

The future contracts (except for own use contracts) for buying and selling greenhouse gas emission allowances and the contracts with funds for buying CERs (certified emission reductions) are classified as trading derivatives. The fair value changes of these transactions are recognised as gains or losses in the income statement. The basis for determining the fair value of transactions is the quotes of ICE EUA and cash flow forecasts. The prices are denominated in euros.

#### Hedging contracts for selling fuel oil

The goal of the swap contracts for buying and selling fuel oil classified as hedges is to hedge the risk of price changes for shale oil. The transactions have been concluded for the sale of a specified volume of shale oil in future periods and they are designated as cash flow hedging instruments, where the underlying instruments to be hedged are highly probable shale oil sales transactions. The basis for determining the fair value of transactions is the quotes by ICE and Platt's European Marcetscan. Hedging instruments, which are combined from various components of derivative instruments, are recognised at fair value with changes through profit or loss until the acquisition of all components.

Liquidity swap transactions, that have been concluded in order to transfer the value changes of previously concluded transactions to partners, where the trading doesn't require daily coverage of market values, are classified as trading derivatives. The prices are denominated in euros and US dollars. As at 31 December 2017 296,967 tonnes had been hedged for the year 2018 and 142,779 tonnes had been heged for the year 2019 (31 December 2016: 286,843 tonnes for the year 2017, 179,561 tonnes for the year 2018 and 23,856 tonnes for the year 2019).

# 15. Credit quality of financial assets

The basis for estimating the credit quality of financial assets not due yet and not written down is the credit ratings assigned by rating agencies or, in their absence, the earlier credit behaviour of clients and ohter parties to the contract.

in million EUR	31. DEC	EMBER
	2017	2016
Trade receivables		
Receivables from new clients (client relationship shorter than 6 months)	2.1	0.5
Receivables from existing clients (client relationship longer than 6 months), who in the last 6 months have not exceeded the due date	49.0	113.0
Receivables from existing clients (client relationship longer than 6 months), who in the last 6 months have exceeded the due date	41.2	37.6
Receivables from existing clients (client relationship longer than 6 months), with who have not had any transactions in the last 6 months	0.2	-
Total trade receivables (Note 13)	92.5	151.1

Under receivables from existing clients as at 31.12.2017 is recognised the receivable amount of EUR 9.9 million of the the liquidated damages from GE (at 31.12.2106 EUR 57.8 million).

### 15. Credit quality of financial assets, continued

in million EUR	31. DECE	EMBER
	2017	2016
Bank accounts and short-term deposits in banks		
At banks with Moody's credit rating of Aa3	273.6	172.6
At banks with Moody's credit rating of Aa2	-	50.0
At banks with Moody's credit rating of A1	25.0	0.2
At banks with Moody's credit rating of A2	0.1	0.3
At banks with Moody's credit rating of A3	-	0.2
Total bank accounts and short-term deposits in banks (Notes 3.1, 3.2, 12 and 17)	298.7	223.3
Other receivables and accrued income	7.1	12.4
Other receivables with Moody's credit rating of Aa3	7.1	12.4
Other receivables with Moody's credit rating of Ba3	1.7	-
Other receivables through Nasdaq OMX clearing house	6.9	-
Receivables without credit rating from an independent party	3.8	61.9
Total other receivables (Note 13)	19.5	74.3
Derivative financial instruments		
Derivative mancial instruments  Derivatives with positive value		
with Moody's credit rating of Aa3	-	0.1
Derivatives with positive value with Moody's credit rating of A1	0.1	0.6
Derivatives with positive value with Moody's credit rating of A2	-	0.2
Derivatives with positive value with Moody's credit rating of Baa2	0.1	-
Derivatives with positive value through Nasdaq OMX clearing house	1.9	0.3
Derivatives with positive value without credit rating from an independent party	1.4	0.2
Derivatives with positive value (Notes 3.1, 3.3, 12 and 14)	3.5	1.4

Nasdaq OMX constitutes a clearing house that is subject to official financial regulation, in relation to whom various risk management measures are applied, the most important of which is the requirement for the clearing house members to issue warrants for their liabilities. Also the requirements for minimum equity amounts are applied on clearing houses and based on that the credit risk is considered.

According to the estimate of the management the other receivables and accrued income without a credit rating from an independent party do not involve material credit risk, as there is no evidence of circumstances that would indicate impairment loss.

# 16. Greenhouse gas allowances and certificates of origin

in million EUR	31. DE0	CEMBER
	2017	2016
Greenhouse gas allowances at the beginning of the period	47.3	33.5
Acquired	96.3	42.0
Returned to state for the greenhouse gas emissions (Note 24)	(46.8)	(28.2)
Greenhouse gas allowances at the end of the period	96.8	47.3
Certificates of origin at the beginning of the period  Acquired	- 0.3	-
Certificates of origin at the end of the period	0.3	-
Total greenhouse gas allowances and certificates of origin at the end of the period	97.1	47.3

### 16. Greenhouse gasallowances and certificates of origin, continued

The value of greenhouse gas allowances acquired is recognised as intangible current assets. In 2017 15,798,000 tonnes (2016: 6,267,000 tonnes) of greenhouse gas allowances were acquired and 10,000 tonnes (2016: 10,000 tonnes) were sold. In 2017 11,356,171 tonnes (2016: 9,867,612 tonnes) of greenhouse gas emission allowances were returned to state.

During the reporting period, a tripartite  ${\rm CO_2}$  quota loan transaction was concluded for 3.3 million tonnes, with a total value of 19.9 million euros and a repayment deadline on 23th March 2018.

# 17. Cash and cash equivalents

	201.6 97.1	113.3 110.0
	201.6	113.3
	2017	2016
in million EUR	31. DECE	MBER

## Cash and cash equivalents by currencies

in million EUR	31. DECEMBER		
	2017	2016	
Euro	295.9	222.9	
US dollar	2.7	0.2	
Polish zloty	0.1	0.2	
Total cash and cash equivalents (Notes 3.1, 3.2, 12 and 15)	298.7	223.3	

In the financial year, the effective interest rates of short term deposits were between 0.01 and 0.8% (2016: 0.1-0.5%).

# 18. Share capital, statutory reserve capital and retained earnings

As at 31 December 2017, Eesti Energia AS had 621,645,750 registered shares (31 December 2016: 621,645,750 registered shares). The nominal value of each share is 1 euro. The sole shareholder is the Republic of Estonia. The administrator of the shares and the exerciser of the rights of shareholders is the Estonian Ministry of Finance, represented by the Minister of Finance at the General Meeting of Shareholders. According to the articles of association of Eesti Energia AS, the minimum share capital is EUR 250.0 million and the maximum share capital is EUR 1,000.0 million.

As at 31 December 2017, the Group's statutory reserve capital totalled EUR 62.1 million (31 December 2016: EUR 62.1 million).

As at 31 December 2017, the Group's distributable equity was EUR 823.6 million (31 December 2016: EUR 770.2 million). Corporate income tax is payable upon the distribution of dividends to shareholders. Income tax on dividends is 20/80 of the amount payable as net dividends.

If all retained earnings were distributed as dividends, the corporate income tax would amount to EUR 164.7 million (31 December 2016: EUR 154.0 million). It is possible to pay out EUR 658.9 million (31 December 2016: EUR 616.2 million) as net dividends.

## 18. Share capital, statutory reserve capital and retained earnings, continued

The Management Board proposes to pay EUR 15.8 million as dividends after the approval of the 2017 Annual Report by the General Meeting of Shareholders. The corresponding income tax totals EUR 4.0 million (Note 19).

The following table presents the basis for calculating the distributable shareholders' equity, potential dividends and the accompanying corporate income tax:

in million EUR	31. DECEMBER		
	2017	2016	
Retained earnings (Note 37)	823.6	770.2	
Distributable shareholder's equity	823.6	770.2	
Corporate income tax on dividends if distributed	164.7	154.0	
Net dividends available for distribution	658.9	616.2	

# 19. Dividends per share

In 2017, Eesti Energia paid dividends of EUR 47.0 million to the Republic of Estonia or EUR 0,08 per share (in 2016 dividends were not paid) (Note 36).

The Management Board proposed to the Annual Meeting to pay dividends of EUR 0.03 per share for the financial year ended 31 December 2017, totalling EUR 15.8 million (Note 18). These financial statements do not reflect this amount as a liability as the dividend had not been approved as at 31 December 2017.

# 20. Other reserves

in million EUR	31. DE	CEMBER
	2017	2016
Other reserves at the beginning of the period	(16.6)	27.8
Change in fair value of cash flow hedges	15.3	(36.7)
Recognised as an increase of revenue	1.0	(8.6)
of which recognised as an increase of revenue of electricity	(9.5)	(4.8)
of which recognised as an increase of revenue of shale oil	10.5	(3.8)
Currency translation differences attributable to foreign subsidiaries	(3.3)	0.9
Other reserves at the end of the period	(3.6)	(16.6)

# 21. Borrowings

## Borrowings at amortised cost

in million EUR	Short-term borrowings		Long-term borrowings		Total
	Bank loans	Bonds issued	Bank loans	Bonds issued	
Borrowings as at 31.12.2016					
Borrowings at amortised cost 31.12.2016 (Notes 3.1, 3.2 and 12)	19.3	-	221.4	699.2	939.9
Changes occurred in 2017					
Amortization of borrowing expenses	-	-	-	7.5	7.5
Repayments of bank loans	(1.4)	-	(64.9)	-	(66.3)
Transfers	-	152.0	-	(152.0)	-
Total changes occurred in 2017	(1.4)	152.0	(64.9)	(144.5)	(58.8)
Borrowings as at 31.12.2017					
Borrowings at amortised cost 31.12.2017 (Notes 3.1, 3.2 and 12)	17.9	152.0	156.5	554.7	881.1

## The fair value of bonds and bank loans

in million EUR	31. DECE	EMBER
	2017	2016
Nominal value of bonds (Note 3.1)	758.3	758.3
Market value of bonds on the basis of quoted sales price (Note 3.3)	817.8	816.0
Nominal value of bank loans with fixed interest rate (Note 3.1)	174.6	192.5
Fair value of bank loans with fixed interest rate (Note 3.3)	177.4	197.1
Nominal value of bank loans with floating interest rate (Note 3.1)	_	48.4
Fair value of bank loans with floating interest rate (Note 3.3)	-	48.4

The bonds are denominated in euros and listed on the London Stock Exchange. The fair value of the bonds is based on the input that is within level 1 of the fair value hierarchy.

## 21. Borrowings, continued

Management estimates that the fair value of the loans with a floating interest rate at the end of comparative period does not differ from their carrying amounts as the risk margins have not changed. The fair values of bank loans with fixed interest rate are based on cash flows discounted using discount rates between 0.649%-1.116% (2016: 0.557%-1.010%) that are within level 3 of the fair value hierarchy.

#### Long-term bank loans at nominal value by due date

in million EUR	31. DECEMBER		
	2017	2016	
< 1 year	17.9	19.3	
1 - 5 years	101.7	148.7	
> 5 years	55.0	72.9	
Total	174.6	240.9	

All loans are denominated in euros. As at 31 December 2017 the interest rates of loans were between 1.1 and 3.1% (31 December 2016: 0.3-3.1%).

As at 31 December 2017, the weighted average nominal interest rate on loans was 1.5% (31 December 2016: 1.4%). The loan agreements concluded by Eesti Energia AS contain certain financial ratios that the Group needs to comply with. The Group has complied with all attached conditions (Note 33).

As at 31 December 2017 the Group had undrawn loan facilities of EUR 150.0 million (31 December 2016: EUR 220.0 million), the figure includes bilateral liquidity loan agreements with floating interest with SEB and OP Corporate bank, which will mature in five years (July 2020).

#### Borrowings by period that interest rates are fixed for

in million EUR	31. DECEMBER		
	2017	2016	
< 1 year	170.2	66.3	
1 - 5 years	176.7	329.2	
> 5 years	534.2	544.4	
Total (Notes 3.1, 3.2 and 12)	881.1	939.9	

Period until earlier of next interest rate repricing date and maturity date.

### Borrowings by period that interest rates are fixed for

in million EUR	31. DECEMBER		
	2017	2016	
Long-term bank loans	1.5%	1.4%	
Bonds	4.3%	4.3%	

# 22. Trade and other payables

in million EUR	31. DEC	CEMBER
	2017	2016
Financial payables within trade and other payables		
Trade payables	98.5	84.2
Accrued expenses	8.1	7.8
Payables to associates (Note 36)	3.2	3.3
Other payables	5.7	2.2
Total financial payables within trade and other payables (Note 3.1 and 12)	115.5	97.5
Payables to employees (Note 3.1)	18.9	19.2
Tax liabilities (Note 3.1)	43.6	33.9
Prepayments	1.1	6.6
Total trade and other payables	179.1	157.2
of which short-term trade and other payables	177.6	155.4
of which long-term trade and other payables	1.5	1.8

Under trade payables as at 31.12.2017 is recognised trade payables for property, plant and equipment of EUR 29.2 million (at 31.12.2016 EUR 24.1 million).

# 23. Deferred income

#### Connection and other service fees

in million EUR	31. DEC	CEMBER
	2017	2016
Deferred connection and other service fees at the beginning of the period	174.9	164.9
Connection and other service fees received	19.0	15.2
The value of assets transferred for connection fees	3.6	1.8
Connection and other service fees recognised as income (Notes 25 and 32)	(7.6)	(7.0)
Deferred connection and other service fees at the end of the period	189.9	174.9

## 24. Provisions

in million EUR						
				Short-term provision	Long-term provision	
Environmental protection provisions (Note 29)	27.6	2.3	0.8	(2.0)	5.1	23.6
Provision for termination of mining operations (Notes 28 and 29)	0.8	-	-	-	-	0.8
Employee related provisions (Note 28)	5.3	0.5	0.1	(0.6)	0.9	4.4
Provision for dismantling cost of assets	3.5	-	0.2	-	-	3.7
Provision for greenhouse gas emissions (Notes 8, 16 and 27)	47.0	64.9	-	(46.8)	65.1	-
Provision for onerous contracts	-	0.5	-	-	0.5	-
Provision for obligations arising from treaties	4.3	-	-	(4.3)	-	-
Total provisions (Note 4)	88.5	68.2	1.1	(53.7)	71.6	32.5

in million EUR	Opening balance 31 December 2015	Recognition and reversal of	Interest charge (Note 30)		Use	Closing b 31 Decemb	
		provisions (Note 5)			Short-term provision	Long-term provision	
Environmental protection provisions (Note 29)	28.3	0.3	0.8	(1.8)	5.6	22.0	
Provision for termination of mining operations (Notes 28 and 29)	0.7	0.1	-	-	0.1	0.7	
Employee related provisions (Note 28)	6.6	0.3	0.1	(1.7)	0.8	4.5	
Provision for dismantling cost of assets	3.3	-	0.2	-	-	3.5	
Provision for greenhouse gas emissions (Notes 8, 16 and 27)	28.3	46.9	-	(28.2)	47.0	-	
Provision for obligations arising from treaties	3.5	0.8	-	-	4.3	-	
Total provisions (Note 4)	70.7	48.4	1.1	(31.7)	57.8	30.7	

Recognition and change in the provisions during financial year 2017 in the amount of EUR 2.6 million (2016: EUR 0.4 million) resulted from the change in discount rate.

Environmental protection provisions and provisions for the termination of mining operations have been set up for:

- restoring land damaged by mining;
- cleaning contaminated land surfaces;

- restoring water supplies contaminated as a result of mining activities;
- ascertainment and compensation of damages caused by blasting work;
- closing landfills and neutralising excess water;
- maintenance of closed ash fields;
- closing of industrial waste dump;
- eliminating asbestos in power plants;
- for payment of mining rights fee;
- for dismantling and gathering of equipment and facilities.

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#### 24. Provisions, continued

Long-term environmental protection provisions will be settled at the Eesti Energia Kaevandused in 2017-2038, and at Narva Elektrijaamad in 2017-2058.

Provisions related to the termination of mining operations will be settled in 2017-2038.

Employee related provisions have been set up for:

- payment of benefits laid down in collective agreements and other acts;
- compensation of work-related injuries;
- payment of termination benefits;
- payments of scholarships.

Long-term employee related provisions will be settled during the periods specified in the contracts or during the remaining life expectancy of the employees, period of which is determined using data from Statistics Estonia on life expectancies by age groups. The provisions for payments of termination benefits in mines and quarries will be set up when the detailed plans for the closure of these mines and quarries have been announced.

The provision for the dismantling costs of assets has been set up to cover the future dismantling costs of the renovated power blocks No. 8 and 11 and industrial waste dump of the Narva power plants. The present value of the dismantling costs of the assets was included in the cost of property, plant and equipment. The provision for the dismantling costs is expected to be settled in 2034-2035.

The provision for greenhouse gas emissions has been set up in the average price of the greenhouse gas emission allowances that are owned by the Group or that are allocated to the Group free of charge for heat production or for the purpose of modernisation of electricity production. In the reporting and comparative period the following amounts of the greenhouse gas emission allowances have been allocated to the Group free of charge:

- a) for the purpose of modernisation of electricity production 1,997,203 tonnes for the investements made in 2017 that will be transferred in 2018; 2,856,499 tonnes for the investments made in 2016 that was transferred in 2017.
- b) for heat production 212,310 tonnes for heat production in 2017, 242,660 tonnes for heat production in 2016. The greenhouse gas emission allowances allocated free of charge are taken into account for the purpose of calculating the provisions in the period for which the allowances are allocated irrespective of their actual transfer (Note 33)

The provision for obligations arising from treaties had been set up for a part of contractual payment for automatic meter reading system installation works that will be paid after the implementation of the system. The provision was settled in 2017.

The provision are discounted at the rate of 0.19%-4.11% (2016: 0.28%-4.60%). The discount curve is used for discounting provisions that allows more accurate evaluation of the provisions in different time horizons.

# 24. Provisions, continued

# 25. Revenue

in million EUR	1 JANUARY -	31 DECEMBER
	2017	2016
By activity		
Sale of goods		
Electricity	348.4	345.8
Shale oil	86.1	67.0
Heat	32.4	37.1
Power equipment	7.2	6.9
Other goods	20.0	17.8
Total sale of goods	494.1	474.6
Sale of services		
Sales of services related to network	235.6	242.9
Connection fees (Notes 23 and 32)	7.6	7.0
Repair and construction services	5.5	6.2
Rental and maintenance income (Note 7)	1.1	1.4
Other services	10.0	10.0
Total sale of services	259.8	267.5
Total revenue (Note 5)	753.9	742.1

# 26. Other operating income

in million EUR	1 JANUARY -	31 DECEMBER
	2017	2016
Fines, penalties and compensations	34.0	71.2
Gain on disposal of associate	9.2	-
Foreign exchange gain	11.1	2.0
Gain from revaluation of derivatives	1.4	14.4
Gain on disposal of property, plant and equipment (Note 32)	0.9	1.2
Government grants (Note 23)	0.3	0.3
Other operating income	0.3	0.5
Total other operating income	57.2	89.6

Under fines, penalties and compensations is recognised agreement with GE in which builder of Auvere power plant agreed to compensate Eesti Energia unearned revenue of EUR 30.9 million (in 2016 EUR 68.6 million) caused by the delay in the works (Note 4).

# 27. Raw materials and consumables used

in million EUR	1 JANUARY – 31 DECEMBER		
	2017	2016	
Transmission services	80.6	81.3	
Greenhouse gases emissions expense (Note 24)	64.9	47.0	
Maintenance and repairs	38.2	32.7	
Materials and spare parts for production	27.5	26.6	
Electricity	20.8	26.4	
Technological fuel	20.5	26.2	
Gas bought for resale	15.1	12.1	
Resource tax on mineral resources	15.3	1.3	
Other raw materials and consumables used	43.0	36.3	
Total raw materials and consumables used	325.9	289.9	

# 28. Payroll expenses

	1 JANUARY - 31 DECEMBER		
	2017	2016	
Number of employees			
Number of employees at the beginning of the period	5,840	6,015	
Number of employees at the end of the period	5,807	5,840	
Average number of employees	5,708	5,696	

in million EUR	1 JANUARY -	31 DECEMBER
	2017	2016
Payroll expenses		
Wages, salaries, bonuses and vacation pay	116.5	105.3
Average monthly pay (in euros)	1,700.8	1,540.6
Other payments and benefits to employees	3.1	3.4
Payroll taxes	40.2	36.6
Recognition/reversal of employee related		
provisions (Note 24)	0.5	0.3
Total calculated payroll expenses	160.3	145.6
Of which remuneration to management and supervisory boards (Note 35)		
Salaries, bonuses, additional remuneration	2.7	2.1
Fringe benefits	0.2	0.1
Total paid to management and supervisory boards	2.9	2.2
Capitalised in the cost of self-constructed assets Covered from the provisions for the termination of mining operations and environmental protection (Note 24)	(18.7)	(15.2)
Total payroll expenses	141.6	130.2

The Management Board members are appointed by the Supervisory Board. The term of appointment for 5 years.

# 29. Other operating expenses

in million EUR	1 JANUARY - 31 DECEMBER	
	2017	2016
Environmental pollution charges	28.7	30.3
Foreign exchange losses	11.1	2.1
Miscellaneous office expenses	7.2	6.2
Rental expense (Note 7)	5.0	5.1
Recognition of environmental and mining termination provisions (Note 24)	2.3	0.1
Research and development costs	1.9	2.4
Loss from doubtful loan receivables (Notes 5, 13 and 32)	0.2	0.9
Other operating expenses	24.5	22.6
Total other expenses	80.9	69.7

# 30. Net financial income (-expense)

in million EUR	UR 1 JANUARY - 31 DECEMBER	
	2017	2016
Financial income		
Interest income	0.2	0.3
Foreign exchange gain	0.6	-
Total financial income (Note 32)	0.8	0.3
Financial expenses		
Interest expenses on borrowings		
Interest expenses on bonds and loans	(34.3)	(36.2)
Amounts capitalised on qualifying assets (Note 6)	22.3	21.7
Total interest expenses on borrowings (Note 32)	(12.0)	(14.5)
Interest expenses on provisions (Note 24)	(1.1)	(1.1)
Total interest expenses	(13.1)	(15.6)
Foreign exchange losses	(6.5)	1.6
Other financial expenses	(0.1)	(0.1)
Total financial expenses	(19.7)	(14.1)
Net financial income (-expense)	(18.9)	(13.8)

# 31. Corporate income tax

According to the Income Tax Act, the companies are taxed in Estonia upon distribution of dividends. From 1 January 2015, the income tax rate is 20/80 of the net amount of dividends. Dividends distributed by Estonian company are exempt, if these are paid out of dividends received from other companies in which Estonian company has at least 10% participation.

## Average effective income tax rate

in million EUR	1 JANUARY - 31 DECEMBER	
	2017	2016
Estonia		
Net dividends	47.0	0.1
Income tax applicable for dividends	20/80	20/80
Theoretical income tax at applicable rates	11.8	0.0
Impact of dividends and liquidation proceeds paid by associates	(0.4)	-
Effective income tax on dividends	11.4	0.0
Average effective income tax rate	19%	20%
Income tax expense arising from the subsidiaries	-	0.1
Total income tax expense	11.4	0.1

Net dividends in 2016 consist of dividends paid by subsidiary to non-controlling interest. As at 31 December 2017 and 31 December 2016, the Group did not have any deferred income tax assets and liabilities.

# 32. Cash generated from operations

in million EUR	1 JANUARY -	31 DECEMBER
	2017	2016
Profit before income tax	112.2	171.1
Adjustments		
Depreciation and impairment of property, plant and equipment (Notes 5 and 6)	132.4	138.5
Amortisation and impairment of intangible assets (Notes 5 and 8)	3.4	4.9
Deferred income from connection and other service fees (Notes 4, 23 and 25)	(7.6)	(7.0)
Gain on disposal of property, plant and equipment	(0.8)	(1.1)
Gain on disposal of associate	(9.2)	-
Amortisation of government grant received to purchase non-current assets (Note 23)	(0.3)	(0.3)
Profit (loss) from associates using equity method (Note 9)	(2.7)	(1.1)
Unpaid/unsettled gain/loss on derivatives	9.8	4.3
Loss from doubtful loan receivables (Notes 5, 13, 29 and 35)	0.2	0.9
Currency exchange gain/loss on loans granted	4.7	(1.3)
Interest expense on borrowings (Note 30)	12.0	14.5
Interest and other financial income (Note 30)	(0.3)	(0.3)
Adjusted net profit before tax	253.8	323.1
Net change in current assets relating to operating activities		
Change in receivables related to operating activities (Note 13)	54.1	(70.0)
Change in inventories (Note 11)	(2.6)	6.7
Net change in other current assets relating to operating activities	(31.3)	(36.5)
Total net change in current assets relating to operating activities	20.2	(99.8)
Net change in current liabilities relating to operating activities		
Change in provisions (Note 24)	15.7	17.0
Change in trade payables (Note 22)	9.3	5.4
Net change in liabilities relating to other operating activities	(3.6)	(0.4)
Total net change in liabilities relating to operating activities	21.4	22.0
Cash generated from operations	295.4	245.3

# 33. Off-balance sheet assets, contingent liabilities and commitments

#### (a) Off-balance sheet assets

#### Oil shale Resources

The overview of the resources of oil shale in the possession of the Group and its associates is presented in the table below. The resources of oil shale of Estonian Republic represent the resources of oil shale in the official balance of natural resources. The resources of oil shale of international development projects are recognised based on the disclosure requirements of international standards of evaluation of resources and reserves. The classification of the resource is performed by the authorized experts and is proved appropriate according to the standard both by the level of exploration and economical perspective. Depending on the development phase the known technical, environmental and social-economical restrictions have been adjusted and taken into account when recognising the resources.

in millions of tonnes	31. DECEMBER
	<b>2017</b> 2016
Estonia	
Measured*	286 508
Jordan	
APCO***	
Measured*	924 924
Inferred**	295 295
JOSE	
Measured*	
Inferred**	2,309 2,309
USA**	
Measured **	3,500 3,500
Indicated**	2,300 2,300
Inferred**	230 230

- Resource represents a part of in place Resource, after it has been modified by desired cut-off grade, technical, economical and already defined modifying factors.
- \*\* Resource is defined as amount of total in place oil shale, that has high possibility for commercial interest. This definition is applied for resources before the pre-technical analyses, to which possible modifying factors have not been applied.

APCO\*\*\* Eesti Energia has 10% ownership of the company

The decrease in the Estonian oil shale resources is attributable to the fact that in February 2017 the Supreme Court of Estonia declared the Uus-Kiviõli mining permit invalid.

## Emission rights

On implementation of article 10c of EU Emissions Trading System the Group may receive for the purpose of modernization of electricity production up to 17.7 million tonnes of greenhouse gas emission allowances free of charge in the period 2013 to 2017. In addition it is possible for the Group according to the article 10a to receive in the period 2013 to 2020 up to 2.1 million tonnes of greenhouse gas emission allowances free of charge for heat production (Notes 16 and 24).

## (b) Contingent liabilities

Contingent liabilities arising from potential tax audit

#### Estonia

Tax authorities have neither started nor performed any tax audits or single case audits at any Group company. Tax authorities have the right to review the company's tax records within 5 years after the reported tax year and if they find any errors they may impose additional taxes, interest and fines. The Group's management considers that there are not any circumstances which may give rise to a potential material liability in this respect.

### 33. Off-balance sheet assets, contingent liabilities and commitments, continued

#### Foreign countries

The Group's management considers that there are not any circumstances which may give rise to a potential material liability in this respect.

#### (c) Financial covenants

The loan agreements concluded by the Group set certain covenants on the Group's consolidated financial indiOcators. The covenants have been adhered to (Note 21).

#### (d) Commitments

Capital commitments arising from construction contracts As at 31 December 2017, the Group had contractual liabilities relating to the acquisition of non-current assets totalling EUR

102.7 million (31 December 2016: EUR 86.2 million).

Contracts for buying greenhouse gas emissions allowances As at 31 December 2017 the Group had concluded contracts for buying greenhouse gas emissions allowances in 2018 in the amount of EUR 96.2 million (31 December 2016: EUR 51.3 million).

#### Obligation to make a contribution in the equity of the oil shale power plant in Jordan

After transaction of the Attarat Power Company (APCO) financial close for its oil shale fired power plant in Jordan, APCO's shareholders are YTL Power International (Malaysia) with 45% interest, Guangdong Yudean Group Co. Limited (China) with 45% interest, and Eesti Energia with 10% interest.

The shareholders have undertaken to contribute USD 528 million to the equity of the electricity project. Eesti Energia's financing obligation amounts to USD 53 million. To date, Eesti Energia has financed the project to the extent of USD 37.1 million (EUR 34.9 million). The rest of the financing in a sum of USD 15.9 million (EUR 13.3 million) will be provided in line with the project plan (Note 35).

# 34. Earnings per share

Basic earnings per share are calculated by dividing profit attributable to the equity holders of the company by the weighted average number of ordinary shares outstanding. As there are no potential ordinary shares, diluted earnings per share equal basic earnings per share in all the periods. In 2016 and 2017 there were no changes in the share capital.

in million EUR	1 January – 31 December	
	2017	2016
Profit attributable to the equity holders of the company (million EUR)	100.7	170.9
Weighted average number of shares (million)	621.6	621.6
Basic earnings per share (EUR)	0.16	0.27
Diluted earnings per share (EUR)	0.16	0.27

# 35. Disposal of associate

On 16 March 2017, Attarat Power Company (APCO) reached financial close for its oil shale fired power plant in Jordan. In connection with the financial close, a share sale agreement took effect by which Eesti Energia reduced its previous 65% interest in APCO to 10%. Eesti Energia's proceeds from the disposal of a 55% majority stake amounted to USD 50.4 million (EUR 46.9 million), consisting of a settlement for loans provided of USD 30.6 million (EUR 28.4 million). Net profit from financial close was USD 9.7 million (EUR 9.2 million).

After the sale of a 55% interest, Eesti Energia AS retained significant influence which grants it the right to economic benefits associated with ownership. Therefore, the remaining 10% interest is accounted for as an investment in an associate. APCO's shareholders have undertaken to contribute to the equity of the electricity project USD 528 million of which Eesti Energia's financing obligation is USD 53 million (Notes 9 and 26).

# 36. Related party transactions

The sole shareholder of Eesti Energia AS is the Republic of Estonia. In preparing the Group's financial statements, the related parties include associates, members of the management and supervisory boards of the parent company, and other companies over which these persons have control or significant influence. Related parties also include entities under the control or significant influence of the state.

#### Transactions with associates

in million EUR	1 JANUARY - 31 DECEMBER	
	2017	2016
Purchase of goods	18.0	17.2
Purchase of services	0.4	-
Proceeds from sale of services	0.2	0.3
Proceeds from sale of goods	-	0.1
Loans granted	0.2	4.3

In 2017, in connection with the sale of the majority stake, the loans the associate Attarat Power Holding Co BV had provided to the Group were realised. In addition, the electricity project in Jordan was financed in the amount of EUR 34.9 million (Notes 9, 32 and 35).

In 2017 the loan granted to associate Enefit Jordan B.V was revalued by EUR 0.2 million and in 2016 by EUR 0.9 million (Notes 5, 13, 29 and 32).

Transactions with entities over which the members of Management and Supervisory Board have significant influence

in million EUR	1 JANUARY -	31 DECEMBER
	2017	2016
Purchases of goods and services	0.4	1.5

The sales of electricity, network services and heat to the entities over which the state has control or significant influence have been taken place under normal business activity. The Group has performed in the reporting and comparative period purchase and sales transactions in the material amounts with Elering AS, which is fully state-owned enterprise.

#### 36. Related party transactions, continued

#### Transactions with Elering AS

in million EUR	1 JANUARY - 31 DECEMBER		
	2017	2016	
Purchase of services	81.3	82.2	
Purchase of goods	13.1	9.2	
Purchase of property, pland and equpiment and prepayments	3.0	1.3	
Sale of goods and services (incl. renewable energy grant)	19.8	20.7	

#### Receivables from Elering AS and payables to Elering AS

in million EUR	1 JANUARY - 31 DECEMBER		
	2017	2016	
Receivables (Note 13)	2.6	2.8	
Payables (Note 22)	20.6	19.9	

The remuneration paid to the members of the Management and Supervisory Boards is disclosed in Note 28. Receivables from associates are disclosed in Note 13 and payables to associates in Note 22. No impairment loss from receivables was recognised in the comparative period.

Upon premature termination of the service contract with a member of the Management Board, the service contracts stipulate the payment of 3 months' remuneration as termination benefits.

In purchasing and selling network services, the prices set by the Estonian Competition Authority are used.

# 37. Financial information on the parent company

Financial information disclosed on the parent company includes the primary separate financial statements of the parent company, the disclosure of which is required by the Accounting Act of Estonia. The primary financial statements of the parent company have been prepared using the same accounting policies that have been used in the preparation of the consolidated financial statements. Investments in subsidiaries and associates are reported at cost in the separate financial statements of the parent company.

#### Income statement

in million EUR	1 JANUARY - 31 DECEMBER	
	2017	2016
Revenue	257.2	288.0
Other operating income	20.7	62.2
Raw materials and consumables used	(214.1)	(218.1)
Other operating expenses	(38.1)	(17.7)
Payroll expenses	(32.8)	(29.9)
Depreciation, amortisation and impairment	(2.7)	(10.2)
Other expenses	(15.3)	(4.4)
OPERATING PROFIT	(25.1)	69.9
Financial income	68.2	17.6
Financial expenses	(44.6)	(32.7)
Net financial income (expense)	23.6	(15.1)
PROFIT BEFORE TAX	(1.5)	54.8
PROFIT FOR THE YEAR	(1.5)	54.8

# 37. Financial information on the parent company, continued

# Statement of comprehensive income

in million EUR	1 JANUARY - 31	
	2017	2016
PROFIT FOR THE YEAR	(1.5)	54.8
Other comprehensive income		
Revaluation of hedging instruments	2.2	(7.4)
Other comprehensive income for the year	2.2	(7.4)
TOTAL COMPREHENSIVE INCOME FOR THE YEAR	0.7	47.4

# Statement of financial position

in million EUR	31. DEC	31. DECEMBER			
	2017	2016			
ASSETS					
Non-current assets					
Property, plant and equipment	25.8	25.5			
Intangible assets	5.6	4.4			
Derivative financial instruments	0.2	-			
Investments in subsidiaries	524.7	524.2			
Investments in associates	-	13.2			
Receivables from subsidiaries	210.7	253.1			
Total non-current assets	767.0	820.4			
Current assets					
Inventories	12	1.6			
Greenhouse gas allowances	96.8	42.1			
Trade and other receivables	1 075.2	1 250.6			
Derivative financial instruments	3.6	4.1			
Cash and cash equivalents	254.4	211.5			
Total current assets	1,431.2	1,509.9			
Total assets	2,198.2	2,330.3			

in million EUR	31. DECE	MBER
	2017	2016
EQUITY		
Share capital	621.6	621.6
Share premium	259.8	259.8
Statutory reserve capital	62.1	62.1
Hedge reserve	2.2	-
Retained earnings	297.7	346.5
Total equity	1,243.4	1,290.0
LIABILITIES		
Non-current liabilities		
Borrowings	711.2	920.6
Provisions	0.5	0.5
Total non-current liabilities	711.7	921.1
Current liabilities		
Borrowings	169.9	19.3
Trade and other payables	63.7	92.7
Derivative financial instruments	9.2	7.1
Provisions	0.3	0.1
Total current liabilities	243.1	119.2
Total liabilities	954.8	1,040.3
Total liabilities and equity	2,198.2	2,330.3

# 37. Financial information on the parent company, continued

### Cash flow statement

in million EUR	1 JANUARY - 31 DECEMBER	
	2017	2016
Cash flows from operating activities		
Profit before tax	(1.5)	54.8
Adjustments		
Depreciation of property, plant and equipment	1.4	8.4
Amortisation of intangible assets	1.3	1.8
Profit/loss from sale of property, plant and equipment	(0.1)	(0.2)
Gain on disposal of subsidiary	(1.4)	(37.7)
Loss from doubtful loan receivables	17.0	0.9
Other gains/losses on investments	(47.0)	(0.2)
Gain/loss on unpaid/unsettled derivatives	4.5	0.1
Currency exchange gain/loss on loans granted	8.2	(1.3)
Interest expense on borrowings	34.3	36.1
Interest income	(20.7)	(17.4)
Adjusted net profit	(4.0)	45.3
Net change in current assets relating to operating activities		
Loss from doubtful receivables	0.3	0.6
Change in receivables relating to operating activities	3.4	0.9
Change in inventories	0.4	(1.6)
Net change in current assets relating to other operating activities	(33.0)	(75.3)
Total net change in current assets relating to operating activities	(28.9)	(75.4)
Net change in liabilities relating to operating activities		
Change in provisions	0.2	(O.1)
Change in trade payables	0.9	(1.3)
Net change in liabilities related to other operating activities	(29.9)	1.8
Total net change in liabilities relating to operating activities	(28.8)	0.4
Interest paid and borrowing costs	(26.9)	(30.3)
Interest received	16.2	13.7
Net cash flows from operating activities	(72.4)	(46.3)

in million EUR	1 JANUARY - 31 DECEMBER			
	2017	2016		
Cash flows from investing activities				
Purchase of property, plant and equipment and intangible assets	(4.8)	(2.5)		
Proceeds from sale of property, plant and equipment	1.0	2.6		
Net change in cash restricted from being used	-	(6.9)		
Purchase of financial investments	(34.9)	-		
Dividends received from financial investments	47.0	0.2		
Contribution to the share capital of subsidiaries	(2.6)	(3.7)		
Proceeds from sale of subsidiaries	4.2	208.8		
Reclassification of receivables granted to subsidiaries	-	(1.7)		
Loans granted to subsidiaries	(0.8)	-		
Repayments of loans granted to subsidiaries	31.8	0.3		
Loan granted to subsidiary classified as doubtful loan	5.7	_		
Change in overdraft granted to subsidiaries	149.0	(63.7)		
Other loans granted	(0.9)	(4.4)		
Proceeds from sale of financial investments	34.9	-		
Net cash used in investing activities	229.6	129.0		
Cash flows from financing activities	,	/		
Repayments of bank loans	(66.3)	(19.3)		
Repayments of other loans	-	(0.6)		
Acquisition of non-controlling interest in a subsidiary	(1.0)	(0.9)		
Dividends paid	(47.0)	(0.5)		
Net cash used in financing activities	(114.3)	(20.8)		
	(11112)	(2212)		
Net cash flows	42.9	61.9		
Cash and cash equivalents at the beginning of the period	211.5	149.6		
Cash and cash equivalents at the end of the period	254.4	211.5		
Net increase in cash and cash equivalents	42.9	61.9		

### 37. Financial information on the parent company, continued

### Statement of changes in equity

in million EUR	Share capital	Share premium	Statutory reserve capital	Hedge reserve	Currency translation differences	Retained earnings	Total
Equity as at 31 December 2015	621.6	259.8	62.1	7.4	-	291.7	1,242.6
Carrying amount of holdings under controlling and significant influence						(533.0)	(533.0)
Carrying amount of holdings under controlling and significant influence using equity method				9.4	11.0	840.8	861.2
Adjusted unconsolidated equity as at 31 December 2015 (Note 19)				16.8	11.0	599.5	1,570.8
Profit for the year		_	_	_	_	54.8	54.8
Other comprehensive income for the year	_			(7.4)	_	J4.0 _	(7.4)
Total comprehensive income for the year	_	_	_	(7.4) ( <b>7.4</b> )	_	54.8	47.4
Total comprehensive income for the year	_	_	_	(7.4)	_	54.6	47.4
Equity as at 31 December 2016	621.6	259.8	62.1	-	-	346.5	1,290.0
Carrying amount of holdings under controlling and significant influence						(537.4)	(537.4)
Carrying amount of holdings under controlling and significant influence using equity method				(28.5)	11.9	961.1	944.5
Adjusted unconsolidated equity as at 31 December 2016 (Note 19)				(28.5)	11.9	770.2	1,697.1
Profit for the year						(1.5)	(1.5)
	_		_	2.2	_	(1.3)	2.2
Other comprehensive income for the year  Total comprehensive income for the year	-	-	_	2.2	_	(1.5)	0.7
Total comprehensive income for the year	-	-	-	2.2	-	(1.5)	0.7
Dividends paid	-	-	-	-	-	(47.0)	(47.0)
Acquisition of non-controlling interest of subsidiary	-	-	-	-	-	(0.3)	(0.3)
Total contributions by and distributions to owners of the company, recognised							
directly in equity	-	-	-	-	-	(47.3)	(47.3)
	-	-	-	-	-	-	
Equity as at 31 December 2017	621.6	259.8	62.1	2.2	-	297.7	1,243.4
Carrying amount of holdings under controlling and significant influence						(524.7)	(524.7)
Carrying amount of holdings under controlling and significant influence using equity method				(14.4)	8.6	1,050.6	1,044.8
Adjusted unconsolidated equity as at 31 December 2017 (Note 19)				(12.2)	8.6	823.6	1,763.5

Under the Accounting Act of Estonia, adjusted unconsolidated retained earnings are the amount from which a public limited company can make payments to its shareholders.



# Independent auditor's report

To the Shareholder of Eesti Energia AS

(Translation of the Estonian original)\*

#### Report on the audit of the consolidated financial statements

#### Our opinion

In our opinion, the consolidated financial statements present fairly, in all material respects, the consolidated financial position of Eesti Energia AS and its subsidiaries (together the Group) as at 31 December 2017, and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards as adopted by the European Union.

Our opinion is consistent with our additional report to the Audit Committee.

#### What we have audited

The Group's consolidated financial statements comprise:

- the consolidated statement of financial position as at 31 December 2017;
- the consolidated statement of comprehensive income for the year then ended;
- the consolidated statement of cash flows for the year then ended;
- the consolidated statement of changes in equity for the year then ended; and
- the notes to the consolidated financial statements, which include a summary of significant accounting policies and other explanatory information.



## Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the *Auditor's responsibilities for the audit of the consolidated financial statements* section of our report.

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

## **Independence**

We are independent of the Group in accordance with the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants (IESBA Code) and the ethical requirements of the Auditors Activities Act of the Republic of Estonia. We have fulfilled our other ethical responsibilities in accordance with the IESBA Code and the ethical requirements of the Auditors Activities Act of the Republic of Estonia.

To the best of our knowledge and belief, we declare that non-audit services that we have provided to the Group are in accordance with the applicable law and regulations in the Republic of Estonia and that we have not provided non-audit services that are prohibited under § 59¹ of the Auditors Activities Act of the Republic of Estonia.

## Our audit approach

#### Overview



#### Materiality

Overall Group materiality is 6.6 million euros which represents approximately 2.5% of underlying earnings before interest, tax, depreciation and amortization ("EBITDA").

#### Audit scope

We tailored our audit scope based on the risk and size of entities within the Group and performed either a full scope audit or specific audit procedures over material income statement or balance sheet line items. At the Group level we tested the consolidation process and performed separate analytical procedures over the components not covered by the above procedures to confirm our conclusion that no material misstatements exist that may affect the consolidated financial statements.

#### Key audit matters

• Property, plant and equipment impairment assessment



As part of designing our audit, we determined materiality and assessed the risks of material misstatement in the consolidated financial statements. In particular, we considered where the Management Board made subjective judgments; for example, in respect of significant accounting estimates that involved making assumptions and considering future events that are inherently uncertain. As in all of our audits, we also addressed the risk of management override of internal controls, including among other matters, consideration of whether there was evidence of bias that represented a risk of material misstatement due to fraud.

#### Materiality

The scope of our audit was influenced by our application of materiality. An audit is designed to obtain reasonable assurance whether the consolidated financial statements are free from material misstatement. Misstatements may arise due to fraud or error. They are considered material if individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the consolidated financial statements.

Based on our professional judgment, we determined certain quantitative thresholds for materiality, including the overall group materiality for the consolidated financial statements as a whole as set out in the table below. These, together with qualitative considerations, helped us to determine the scope of our audit and the nature, timing and extent of our audit procedures and to evaluate the effect of misstatements, both individually and in aggregate on the financial statements as a whole.

Overall group materiality	6.6 million euros.
How we determined it	Approximately 2.5% of underlying earnings before interest, tax, depreciation and amortization (EBITDA).
Rationale for the materiality benchmark applied	We have applied the EBITDA benchmark, as we believe that is the key measure used both internally by management and by external stakeholders in evaluating the performance of the Group.

#### Key audit matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key audit matter	How our audit addressed the key audit matter
Property, plant and equipment impairment assessment	We began our procedures by assessing whether impairment indicators exist for the assets not identified by management. We took into account our knowledge of the
The significant assumptions used by the management and their impact on the recoverable amount of property, plant and equipment are described on	Group and its business activities as well as the accumulated knowledge related to the industries where the Group operates. In addition, we performed inquiries with





pages 146 and 154 through 157 of the Annual Report.

As at 31 December 2017 the Group has 2,475 million euros of property, plant and equipment, the majority of which relate to the shale mining, shale oil production and power generation assets in Estonia. The difficult global economic environment as well as the low market prices for oil and electricity have continued to put pressure on the Group and are an indication that the recoverable amount of the assets may be below their carrying amount.

The recoverable amount of the Group's property, plant and equipment is determined by either their value in use or their fair value less cost of disposal, both of which are based on discounted future cash flows.

Impairment assessment of these assets is subjective and requires significant judgments due to the inherent uncertainty involved in the forecasting and discounting of future cash flows. Many of the key underlying assumptions are impacted by global and country-specific political and economic factors. Consequently, there is a high risk that due to the judgemental factors, potential impairment may be unidentified or the impairment loss be miscalculated. Due to the above reasons we considered this area to be a key audit matter.

management and key employees and inspected internal documents of the Group. We found the management's conclusions regarding assets with impairment indicators to be consistent with the evidence we obtained.

We evaluated management's key assumptions and estimates used in the calculation of the recoverable value of the assets identified for impairment, including the assumptions related to operational performance, such as operating cost forecasts, electricity and oil shale production volumes and reliability of production assets. We challenged management's assumptions by corroborating the information with the information received from operational level management and by referencing them to the actual performance of the Group and to internal documents of the Group, such as budget forecasts and minutes of meetings of governing bodies. Where management had used market inputs, such as oil, electricity and CO<sub>2</sub> emissions quota prices, we reconciled them to available third party information sources, such as commodity price forecasts. We involved PwC valuation specialists to help us assess the reasonableness of the discount rates used by management. We benchmarked these to external data and challenged the assumptions based on our knowledge of the Group and its industry. Based on the audit evidence obtained from the above procedures we did not identify any material misstatements, contradictions or omissions in the key assumptions and estimates used by management in the calculation of the recoverable value of property, plant and equipment.

Based on our audit procedures we found the management's judgment to be consistent with available information and the disclosures to appropriately reflect the sources of sensitivity and related impacts on the recoverable value in accordance with the requirements of IAS 36 and IAS 1.

#### How we tailored our audit scope

We tailored the scope of our audit in order to perform sufficient work to enable us to provide an opinion on the consolidated financial statements as a whole, taking into account the structure of the Group, the accounting processes and controls, and the industry in which the Group operates.



Accordingly, based on the size and risk characteristics, we performed a full scope audit of the financial information for the following entities within the Group: Enefit Energiatootmine AS (electricity generation and shale oil production), Enefit Kaevandused AS (shale mining), Elektrilevi OÜ (transmission grid), Eesti Energia AS (parent company), Enefit Green AS (electricity generation from renewable sources). In addition, specific audit procedures over significant balances and transactions were performed for sales revenue of Enefit SIA (electricity sale in Latvia) and for the potential impairment of assets of Enefit American Oil (shale mining development rights in USA), Enefit Solutions AS (manufacturing of metal structures) and Enefit Outotec Technology OÜ (Enefit technology testing facility). At the Group level we tested the consolidation process and performed separate analytical procedures over the components not covered by the above procedures to confirm our conclusion that no material misstatements exist that may affect the consolidated financial statements. Information describing the structure of the Group is included in note 10 of the consolidated financial statements.

### Other information

The Management Board is responsible for the other information contained in the Group's 2017 Annual report, in addition to the consolidated financial statements and our auditor's report thereon.

Our opinion on the consolidated financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

# Responsibilities of the Management Board and those charged with governance for the consolidated financial statements

The Management Board is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with International Financial Reporting Standards as adopted by the European Union, and for such internal control as the Management Board determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the Management Board is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Management Board either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Group's financial reporting process.



# Auditor's responsibilities for the audit of the consolidated financial statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. 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 consolidated financial statements.

As part of an audit in accordance with ISAs, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain 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.
- Obtain 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 Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Management Board.
- Conclude on the appropriateness of the Management Board'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 Group'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 consolidated 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 the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the Group audit. We remain solely responsible for our audit opinion.

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



We also provide those charged with governance 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.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

# Report on other legal and regulatory requirements

## Appointment and period of our audit engagement

We were first appointed as auditors of Eesti Energia AS, as a public interest entity, for the financial year ended 31 December 2005. Our appointment has been renewed by tenders and shareholder resolutions in the intermediate years, representing the total period of our uninterrupted engagement appointment for Eesti Energia AS, as a public interest entity, of 13 years.

AS PricewaterhouseCoopers

Tiit Raimla

Certified auditor in charge, auditor's certificate no.287

Jüri Koltsov

Auditor's certificate no.623

21 February 2018

<sup>\*</sup> This version of our report is a translation from the original, which was prepared in Estonian. All possible care has been taken to ensure that the translation is an accurate representation of the original. However, in all matters of interpretation of information, views or opinions, the original language version of our report takes precedence over this translation.

# Profit Allocation proposal

The Management Board proposes under section 332 of the Commercial Code of Estonia to allocate the retained earnings of Eesti Energia Group as at 31 December 2017 as follows:

- 1. to pay EUR 15,800,000 as dividends to the shareholder;
- 2. not to distribute the remaining retained earnings of EUR 807,719,039.29 due to the continuing financing needs of the Eesti Energia Group.

# Signatures of the Management Board to the Annual Report for Financial Year 2017

In the 2017 financial year, the Eesti Energia Management Board complied as required with the duties of members of the Management Board, and led the Eesti Energia Group to achieve its targets. The Management Board has regularly reported to the Supervisory Board, has acted within its powers and has submitted all of the information necessary for decision-making to the Supervisory Board. The Management Board is aware of and hereby confirms its responsibility for the preparation of the annual report and for the data therein.

The Annual Report of the Eesti Energia Group for the financial year ended on 31 December 2017 consists of the management report, the consolidated financial statements, the auditor's report and the profit allocation proposal. The Management Board has prepared the management report, the consolidated financial statements and the profit allocation proposal.

21 February 2018

Chairman of the Management Board

Hando Sutter

Members of the Management Board

Andri Avila

Raine Pajo

Andres Sutt

Margus Vals

# Glossary

**Circulating fluidised bed (CFB) technology** – Circulating fluidised bed combustion technology whereby larger (unburnt) particles are returned to the furnace

**Clean Dark Spread (CDS)** – Eesti Energia's margin between the price of electricity (in NP Estonia) and oil shale costs and  $\mathrm{CO}_2$  costs (taking into account the price of  $\mathrm{CO}_2$  allowance futures maturing in December and the amount of  $\mathrm{CO}_2$  emitted in the generation of a MWh of electricity)

**Controllable energy production assets** – production assets fired by energy sources such as oil shale, oil shale gas, wood chips, peat, tyre chips

 ${\rm CO_2}$  emission allowance – According to the European Union Emissions Trading System (ETS), one emission allowance gives the holder the right to emit one tonne of carbon dioxide ( ${\rm CO_2}$ ). The limit on the total number of emission allowances available gives them a monetary value.

**EBITDA** – Earnings before interest, taxes, depreciation and amortisation

**EBITDA margin** – Earnings before interest, taxes, depreciation and amortisation divided by revenues

**FFO** – Funds from operations. Cash flow from operations, excluding changes in working capital

Financial leverage - Net debt divided by the sum of net debt and equity

**Future** – A contract between counterparties which obligates to buy or sell an underlying asset (e.g. a commodity) at a pre-agreed price

**Green paper on industrial policy** – A document prepared by the state and employers' associations which outlines the bottlenecks of industrial development and suggests solutions for their elimination and improving industrial development

**Level of water reservoirs** – The largest part of the Nordic countries' electricity generation is based on hydro power whose output depends on the level of water reservoirs.

**Liquidity** – Amount of liquid assets. The sum of cash and cash equivalents, short term financial investments and deposits with a maturity of more than three months

**Maintenance and repair expenditures** – Expenditures incurred to maintain the existing production capacities

**MWh** – megawatt hour. 1 MWh is the unit of energy generated (or consumed) in one hour by a device operating at a constant power of 1 MW (megawatt)

1.000.000 MWh = 1.000 GWh = 1 TWh

**Net debt** – Debt obligations (amortised) less cash and cash equivalents (incl. bank deposits with maturities exceeding three months), units in money market funds and investments in fixed income bonds

**Network losses** – The amount of electricity delivered to customers is somewhat smaller than the amount supplied from power plants to the network because during transfer a part of electricity in the power lines and transformers converts into heat. To a lesser extent, network losses are caused by power theft and incorrect measuring. The network operator has to compensate energy losses and for this a corresponding amount of electricity has to be purchased every hour.

**NP system price** – The price on the Nord Pool power exchange that is calculated on the basis of all purchase and sale bids without taking into account transmission capacity limitations

**OHSAS, ISO 14001, HAZOP** – International standards which deal with risk management in the area of occupational health and safety, the environment management system, and accident prevention

Oil shale resource charge – A charge to be paid to the state for the use of 1 tonne of oil shale located in the mineral deposit

**Position hedged with forward transactions** – The average price and the corresponding amount of electricity and shale oil sold and emission allowances purchased in the future is previously fixed

**RAB** – Regulated Asset Base, which represents the value of assets used to provide regulated services

**Return on Fixed Assets (ROFA)** – Operating profit (rolling 12 months) divided by average fixed assets excluding assets under construction (allocated to specific product)

**ROIC** – Return on Invested Capital, calculated by dividing operating profit by average invested capital

**SAIDI** – System Average Interruption Duration Index. The sum of all customer interruption durations in minutes divided by the total number of customers served

SAIFI - System Average Interruption Frequency Index. The total number of customer interruptions divided by the total number of customers served

**Tax footprint** – An indicator which reflects the contribution made to society through taxes

Variable profit - Profit after deducting variable costs from sales revenue

# Investor Information

The Group's results concerning the financial year 2018 are released as follows:

- Q1 interim report 27 April 2018
- Q2 interim report 27 July 2018
- Q3 interim report 30 October 2018
- The audited results for the financial year 2018 28 February 2019

Eesti Energia's financial results and contacts for investor relations are available on the Group's web page:

https://www.energia.ee/en/ettevottest/investorile

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